



National Ag in the Classroom Lesson Matrix

TEKS Alignment: Kindergarten – 2nd Grade

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A DAY WITHOUT AGRICULTURE

English Language Arts

- Kindergarten:
 - 110.2.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.2.b.1.C: share information and ideas by speaking audibly and clearly using the conventions of language
 - 110.2.b.5: Comprehension skills: listening, speaking, reading, writing, and thinking using multiple texts. The student uses metacognitive skills to both develop and deepen comprehension of increasingly complex texts. The student is expected to:
 - 110.2.b.5.G: evaluate details to determine what is most important with adult assistance
 - 110.2.b.5.H: synthesize information to create new understanding with adult assistance
- 1st Grade:
 - 110.3.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.3.b.1.C: share information and ideas about the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language
 - 110.3.b.2: Developing and sustaining foundational language skills: listening, speaking, reading, writing, and thinking--beginning reading and writing. The student develops word structure knowledge through phonological awareness, print concepts, phonics, and morphology to communicate, decode, and spell. The student is expected to:
 - 110.3.b.2.F: develop handwriting by printing words, sentences, and answers legibly leaving appropriate spaces between words
 - 110.3.b.6: Comprehension skills: listening, speaking, reading, writing, and thinking using multiple texts. The student uses metacognitive skills to both develop and deepen comprehension of increasingly complex texts. The student is expected to:
 - 110.3.b.6.G: evaluate details to determine what is most important with adult assistance
 - 110.3.b.6.H: synthesize information to create new understanding with adult assistance
- 2nd Grade:
 - 110.4.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral



language. The student develops oral language through listening, speaking, and discussion. The student is expected to:

- 110.4.b.1.C: share information and ideas that focus on the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language
- 110.4.b.6: Comprehension skills: listening, speaking, reading, writing, and thinking using multiple texts. The student uses metacognitive skills to both develop and deepen comprehension of increasingly complex texts. The student is expected to:
 - 110.4.b.6.G: evaluate details read to determine key ideas
 - 110.4.b.6.H: synthesize information to create new understanding

Science

- Kindergarten:
 - 112.2.b.12: Organisms and environments. The student knows that plants and animals depend on the environment to meet their basic needs for survival. The student is expected to:
 - 112.2.b.12.A: observe and identify the dependence of plants on air, sunlight, water, nutrients in the soil, and space to grow; and
 - 112.2.b.12.B: observe and identify the dependence of animals on air, water, food, space, and shelter
- 2nd Grade:
 - 112.4.b.12: Organisms and environments. The student knows that living organisms have basic needs that must be met through interactions within their environment. The student is expected to:
 - 112.4.b.12.A: describe how the physical characteristics of environments, including the amount of rainfall, support plants and animals within an ecosystem

Social Studies

- Kindergarten:
 - 113.11.c.5: Economics. The student understands the difference between human needs and wants and how they are met. The student is expected to:
 - 113.11.c.5.A: identify basic human needs of food, clothing, and shelter;
 - 113.11.c.5.B: explain the difference between needs and wants

A IS FOR APPLES

English Language Arts

- Kindergarten:
 - 110.2.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral



language. The student develops oral language through listening, speaking, and discussion. The student is expected to:

- 110.2.b.1.C: share information and ideas by speaking audibly and clearly using the conventions of language
- 110.2.b.3: Developing and sustaining foundational language skills: listening, speaking, reading, writing, and thinking--vocabulary. The student uses newly acquired vocabulary expressively. The student is expected to:
 - 110.2.b.3.C: identify and use words that name actions; directions; positions; sequences; categories such as colors, shapes, and textures; and locations
- 110.2.b.5: Comprehension skills: listening, speaking, reading, writing, and thinking using multiple texts. The student uses metacognitive skills to both develop and deepen comprehension of increasingly complex texts. The student is expected to:
 - 110.2.b.5.H: synthesize information to create new understanding with adult assistance
- 110.2.b.11: Composition: listening, speaking, reading, writing, and thinking using multiple texts--genres. The student uses genre characteristics and craft to compose multiple texts that are meaningful. The student is expected to:
 - 110.2.b.11.B: dictate or compose informational texts
- 1st Grade:
 - 110.3.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.3.b.1.C: share information and ideas about the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language
 - 110.3.b.2: Developing and sustaining foundational language skills: listening, speaking, reading, writing, and thinking--beginning reading and writing. The student develops word structure knowledge through phonological awareness, print concepts, phonics, and morphology to communicate, decode, and spell. The student is expected to:
 - 110.3.b.2.F: develop handwriting by printing words, sentences, and answers legibly leaving appropriate spaces between words
 - 110.3.b.6: Comprehension skills: listening, speaking, reading, writing, and thinking using multiple texts. The student uses metacognitive skills to both develop and deepen comprehension of increasingly complex texts. The student is expected to:
 - 110.3.b.6.H: synthesize information to create new understanding with adult assistance



- 110.3.b.12: Composition: listening, speaking, reading, writing, and thinking using multiple texts--genres. The student uses genre characteristics and craft to compose multiple texts that are meaningful. The student is expected to:
 - 110.3.b.12.A: dictate or compose literary texts, including personal narratives and poetry
- 2nd Grade:
 - 110.4.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.4.b.1.C: share information and ideas that focus on the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language
 - 110.4.b.6: Comprehension skills: listening, speaking, reading, writing, and thinking using multiple texts. The student uses metacognitive skills to both develop and deepen comprehension of increasingly complex texts. The student is expected to:
 - 110.4.b.6.H: synthesize information to create new understanding
 - 110.4.b.12: Composition: listening, speaking, reading, writing, and thinking using multiple texts--genres. The student uses genre characteristics and craft to compose multiple texts that are meaningful. The student is expected to:
 - 110.4.b.12.A: compose literary texts, including personal narratives and poetry

Math

- Kindergarten
 - 111.2.b.8: Data analysis. The student applies mathematical process standards to collect and organize data to make it useful for interpreting information. The student is expected to:
 - 111.2.b.8.A: collect, sort, and organize data into two or three categories
 - 111.2.b.8.B: use data to create real-object and picture graphs
 - 111.2.b.8.C: draw conclusions from real-object and picture graphs
- 1st Grade:
 - 111.3.b.8: Data analysis. The student applies mathematical process standards to organize data to make it useful for interpreting information and solving problems. The student is expected to:
 - 111.3.b.8.B: use data to create picture and bar-type graphs



- 111.3.b.8.C: draw conclusions and generate and answer questions using information from picture and bar-type graphs
- 2nd Grade:
 - 111.4.b.10: Data analysis. The student applies mathematical process standards to organize data to make it useful for interpreting information and solving problems. The student is expected to:
 - 111.4.b.10.B: organize a collection of data with up to four categories using pictographs and bar graphs with intervals of one or more
 - 111.4.b.10.D: write and solve one-step word problems involving addition or subtraction using data represented within pictographs and bar graphs with intervals of one

A GARDEN PLOT: THE TALE OF PETER RABBIT

English Language Arts

- Kindergarten:
 - 110.2.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.2.b.1.C: share information and ideas by speaking audibly and clearly using the conventions of language;
 - 110.2.b.2: Developing and sustaining foundational language skills: listening, speaking, reading, writing, and thinking--beginning reading and writing. The student develops word structure knowledge through phonological awareness, print concepts, phonics, and morphology to communicate, decode, and spell. The student is expected to:
 - 110.2.b.2.D: demonstrate print awareness by:
 - 110.2.b.2.D.i: identifying the front cover, back cover, and title page of a book;
 - 110.2.b.2.D.v: identifying all uppercase and lowercase letters; and
 - 110.2.b.2.E: develop handwriting by accurately forming all uppercase and lowercase letters using appropriate directionality.
 - 110.2.b.3: Developing and sustaining foundational language skills: listening, speaking, reading, writing, and thinking--vocabulary. The student uses newly acquired vocabulary expressively. The student is expected to:
 - 110.2.b.3.C: identify and use words that name actions; directions; positions; sequences; categories such as colors, shapes, and textures; and locations.



- 110.2.b.5: Comprehension skills: listening, speaking, reading, writing, and thinking using multiple texts. The student uses metacognitive skills to both develop and deepen comprehension of increasingly complex texts. The student is expected to:
 - 110.2.b.5.G: evaluate details to determine what is most important with adult assistance;
 - 110.2.b.5.H: synthesize information to create new understanding with adult assistance; and
- 110.2.b.10: Composition: listening, speaking, reading, writing, and thinking using multiple texts--writing process. The student uses the writing process recursively to compose multiple texts that are legible and uses appropriate conventions. The student is expected to:
 - 110.2.b.10.D: edit drafts with adult assistance using standard English conventions, including:
 - 110.2.b.10.D.vi: pronouns, including subjective, objective, and possessive cases;
 - 110.2.b.10.D.vii: capitalization of the first letter in a sentence and name;
 - 110.2.b.10.D.viii: punctuation marks at the end of declarative sentences; and
 - 110.2.b.11: Composition: listening, speaking, reading, writing, and thinking using multiple texts--genres. The student uses genre characteristics and craft to compose multiple texts that are meaningful. The student is expected to:
 - 110.2.b.11.B: dictate or compose informational texts.
- 1st Grade:
 - 110.3.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.3.b.1.C: share information and ideas about the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language;
 - 110.3.b.2: Developing and sustaining foundational language skills: listening, speaking, reading, writing, and thinking--beginning reading and writing. The student develops word structure knowledge through phonological awareness, print concepts, phonics, and morphology to communicate, decode, and spell. The student is expected to:
 - 110.3.b.2.D: demonstrate print awareness by identifying the information that different parts of a book provide;
 - 110.3.b.2.F: develop handwriting by printing words, sentences, and answers legibly leaving appropriate spaces between words.



- 110.3.b.3: Developing and sustaining foundational language skills: listening, speaking, reading, writing, and thinking--vocabulary. The student uses newly acquired vocabulary expressively. The student is expected to:
 - 110.3.b.3.D: identify and use words that name actions, directions, positions, sequences, categories, and locations.
- 110.3.b.6: Comprehension skills: listening, speaking, reading, writing, and thinking using multiple texts. The student uses metacognitive skills to both develop and deepen comprehension of increasingly complex texts. The student is expected to:
 - 110.3.b.6.G: evaluate details to determine what is most important with adult assistance;
 - 110.3.b.6.H: synthesize information to create new understanding with adult assistance; and
- 110.3.b.11: Composition: listening, speaking, reading, writing, and thinking using multiple texts--writing process. The student uses the writing process recursively to compose multiple texts that are legible and uses appropriate conventions. The student is expected to:
 - 110.3.b.11.D: edit drafts using standard English conventions, including:
 - 110.3.b.11.D.vii: pronouns, including subjective, objective, and possessive cases;
 - 110.3.b.11.D.viii: capitalization for the beginning of sentences and the pronoun "I";
 - 110.3.b.11.D.ix: punctuation marks at the end of declarative, exclamatory, and interrogative sentences; and
- 110.3.b.12: Composition: listening, speaking, reading, writing, and thinking using multiple texts--genres. The student uses genre characteristics and craft to compose multiple texts that are meaningful. The student is expected to:
 - 110.3.b.12.B: dictate or compose informational texts, including procedural texts; and
- 2nd Grade:
 - 110.4.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.4.b.1.C: share information and ideas that focus on the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language;
 - 110.4.b.6: Comprehension skills: listening, speaking, reading, writing, and thinking using multiple texts. The student uses



metacognitive skills to both develop and deepen comprehension of increasingly complex texts. The student is expected to:

- 110.4.b.6.G: evaluate details read to determine key ideas;
- 110.4.b.6.H: synthesize information to create new understanding; and
- 110.4.b.11: Composition: listening, speaking, reading, writing, and thinking using multiple texts--writing process. The student uses the writing process recursively to compose multiple texts that are legible and uses appropriate conventions. The student is expected to:
 - 110.4.b.11.D: edit drafts using standard English conventions, including:
 - 110.4.b.11.D.vii: pronouns, including subjective, objective, and possessive cases;
 - 110.4.b.11.D.x: end punctuation, apostrophes in contractions, and commas with items in a series and in dates; and
 - 110.4.b.12: Composition: listening, speaking, reading, writing, and thinking using multiple texts--genres. The student uses genre characteristics and craft to compose multiple texts that are meaningful. The student is expected to:
 - 110.4.b.12.B: compose informational texts, including procedural texts and reports; and

Science

- Kindergarten:
 - 112.2.b.1: Scientific and engineering practices. The student asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:
 - 112.2.b.1.F: record and organize data using pictures, numbers, words, symbols, and simple graphs
 - 112.2.b.3: Scientific and engineering practices. The student develops evidence-based explanations and communicates findings, conclusions, and proposed solutions. The student is expected to:
 - 112.2.b.3.B: communicate explanations and solutions individually and collaboratively in a variety of settings and formats
 - 112.2.b.13: Organisms and environments. The student knows that organisms resemble their parents and have structures and undergo processes that help them interact and survive within their environments. The student is expected to:



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- 112.2.b.13.C: identify and record the changes from seed, seedling, plant, flower, and fruit in a simple plant life cycle
- 1st Grade:
 - 112.3.b.1: Scientific and engineering practices. The student asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:
 - 112.3.b.1.F: record and organize data using pictures, numbers, words, symbols, and simple graphs
 - 112.3.b.3: Scientific and engineering practices. The student develops evidence-based explanations and communicates findings, conclusions, and proposed solutions. The student is expected to:
 - 112.3.b.3.B: communicate explanations and solutions individually and collaboratively in a variety of settings and formats
- 2nd Grade:
 - 112.4.b.1: Scientific and engineering practices. The student asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:
 - 112.4.b.1.F: record and organize data using pictures, numbers, words, symbols, and simple graphs
 - 112.4.b.3: Scientific and engineering practices. The student develops evidence-based explanations and communicates findings, conclusions, and proposed solutions. The student is expected to:
 - 112.11.b.3.B: communicate explanations and solutions individually and collaboratively in a variety of settings and formats
 - 112.4.b.12: Organisms and environments. The student knows that living organisms have basic needs that must be met through interactions within their environment. The student is expected to:
 - 112.4.b.12.A: describe how the physical characteristics of environments, including the amount of rainfall, support plants and animals within an ecosystem

Social Studies

- Kindergarten:
 - 113.11.c.14: Social studies skills. The student communicates in oral and visual forms. The student is expected to:



- 112.11.c.14.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies
- 1st Grade:
 - 113.12.c.17: Social studies skills. The student communicates in oral, visual, and written forms. The student is expected to:
 - 113.12.c.17.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
- 2nd Grade:
 - 113.13.c.16: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
 - 113.13.c.16.E: communicate information visually, orally, or in writing based on knowledge and experiences in social studies

A SEARCH FOR THE SOURCE

English Language Arts

- Kindergarten:
 - 110.2.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.2.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including taking turns;
 - 110.2.b.5: Comprehension skills: listening, speaking, reading, writing, and thinking using multiple texts. The student uses metacognitive skills to both develop and deepen comprehension of increasingly complex texts. The student is expected to:
 - 110.2.b.5.H: synthesize information to create new understanding with adult assistance;
- 1st Grade:
 - 110.3.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.3.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including listening to others, speaking when recognized, and making appropriate contributions;
 - 110.3.b.6: Comprehension skills: listening, speaking, reading, writing, and thinking using multiple texts. The student uses metacognitive skills to both develop and deepen comprehension of increasingly complex texts. The student is expected to:



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- 110.3.b.6.H: synthesize information to create new understanding with adult assistance;
- 2nd Grade:
 - 110.4.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.4.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including listening to others, speaking when recognized, making appropriate contributions, and building on the ideas of others;
 - 110.4.b.6: Comprehension skills: listening, speaking, reading, writing, and thinking using multiple texts. The student uses metacognitive skills to both develop and deepen comprehension of increasingly complex texts. The student is expected to:
 - 110.4.b.6.H: synthesize information to create new understanding;

Math

- Kindergarten:
 - 111.2.b.8: Data analysis. The student applies mathematical process standards to collect and organize data to make it useful for interpreting information. The student is expected to:
 - 111.2.b.8.A: collect, sort, and organize data into two or three categories;

Science

- Kindergarten:
 - 112.2.b.1: Scientific and Engineering Practices: The student asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:
 - 112.2.b.1.F: record and organize data using pictures, numbers, words, symbols, and simple graphs
 - 112.2.b.5: Recurring Themes and Concepts: The student uses recurring themes and concepts to make connections across disciplines. The student is expected to:
 - 112.2.b.5.A: identify and use patterns to describe phenomena or design solutions
 - 112.2.b.5.G: describe how factors or conditions can cause objects, organisms, and systems to either change or stay the same



- 112.2.b.12: Organisms and Environments: The student knows that plants and animals depend on the environment to meet their basic needs for survival. The student is expected to:
 - 112.2.b.12.A: observe and identify the dependence of plants on air, sunlight, water, nutrients in the soil, and space to grow
 - 112.2.b.12.B: observe and identify the dependence of animals on air, water, food, space, and shelter
- 1st Grade:
 - 112.3.b.1: Scientific and Engineering Practices: The student asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:
 - 112.3.b.1.F: record and organize data using pictures, numbers, words, symbols, and simple graphs
 - 112.3.b.5: Recurring Themes and Concepts: The student uses recurring themes and concepts to make connections across disciplines. The student is expected to:
 - 112.3.b.5.A: identify and use patterns to describe phenomena or design solutions
 - 112.3.b.11: Earth and Space: The student knows that earth materials and products made from these materials are important to everyday life. The student is expected to:
 - 112.3.b.11.B: explain why water conservation is important
 - 112.3.b.12: Organisms and environments. The student knows that the environment is composed of relationships between living organisms and nonliving components. The student is expected to:
 - 112.3.b.12.A: classify living and nonliving things based upon whether they have basic needs and produce young
- 2nd Grade:
 - 112.4.b.1: Scientific and Engineering Practices: The student asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:
 - 112.4.b.1.F: record and organize data using pictures, numbers, words, symbols, and simple graphs
 - 112.4.b.5: Recurring Themes and Concepts: The student uses recurring themes and concepts to make connections across disciplines. The student is expected to:
 - 112.4.b.5.A: identify and use patterns to describe phenomena or design solutions



- 112.4.b.11: Earth and Space: The student knows that earth materials and products made from these materials are important to everyday life. The student is expected to:
 - 112.4.b.11.B: describe how human impact can be limited by making choices to conserve and properly dispose of materials such as reducing use of, reusing, or recycling paper, plastic, and metal.
- 112.4.b.12: Organisms and environments. The student describes patterns, cycles, systems, and relationships within environments. The student is expected to:
 - 112.4.b.12.A: describe how the physical characteristics of environments, including the amount of rainfall, support plants and animals within an ecosystem

Social Studies

- Kindergarten:
 - 113.11.c.4: Geography. The student understands physical and human characteristics of place to better understand self, home, family, classroom, and the world around them. The student is expected to:
 - 113.11.c.4.A: identify the physical characteristics of place such as landforms, bodies of water, Earth's resources, and weather;
 - 113.11.c.5: Economics. The student understands the difference between human needs and wants and how they are met. The student is expected to:
 - 113.12.c.5.B: explain the difference between needs and wants;
 - 113.11.c.13: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including technology. The student is expected to:
 - 113.12.c.13.D: sequence and categorize information.
- 1st Grade:
 - 113.12.c.5: Geography. The student understands physical and human characteristics of place to better understand their community and the world around them. The student is expected to:
 - 113.12.c.5.A: identify and describe the physical characteristics of place such as landforms, bodies of water, Earth's resources, and weather;
 - 113.12.c.9: Economics. The student understands the value of work. The student is expected to:
 - 113.12.c.9.B: describe how various jobs contribute to the production of goods and services.



- 113.12.c.16: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including technology. The student is expected to:
 - 113.12.c.16.D: sequence and categorize information.
- 2nd Grade:
 - 113.13.c.5: Geography. The student understands how humans use and modify the physical environment. The student is expected to:
 - 113.13.c.5.C: identify ways people can conserve and replenish Earth's resources.
 - 113.13.c.7: Economics. The student understands the roles of producers and consumers in the production of goods and services. The student is expected to:
 - 113.13.c.7.C: trace the development of a product from a natural resource to a finished product.
 - 113.13.c.15: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including technology. The student is expected to:
 - 113.13.c.15.D: interpret oral, visual, and print material by sequencing, categorizing, identifying the main idea, predicting, comparing, and contrasting.

A TAIL OF TWO SHEEP

English Language Arts

- Kindergarten:
 - 110.2.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.2.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including taking turns;
 - 110.2.b.5: Comprehension skills: listening, speaking, reading, writing, and thinking using multiple texts. The student uses metacognitive skills to both develop and deepen comprehension of increasingly complex texts. The student is expected to:
 - 110.2.b.5.H: synthesize information to create new understanding with adult assistance;
 - 110.2.b.6: Response skills: listening, speaking, reading, writing, and thinking using multiple texts. The student responds to an increasingly challenging variety of sources that are read, heard, or viewed. The student is expected to:
 - 110.2.b.6.B: provide an oral, pictorial, or written response to a text;



- 110.2.b.6.F: respond using newly acquired vocabulary as appropriate;
 - 110.2.b.12: Inquiry and research: listening, speaking, reading, writing, and thinking using multiple texts. The student engages in both short-term and sustained recursive inquiry processes for a variety of purposes. The student is expected to:
 - 110.2.b.12.B: develop and follow a research plan with adult assistance;
 - 110.2.b.12.D: demonstrate understanding of information gathered with adult assistance;
- 1st Grade:
 - 110.3.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.3.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including listening to others, speaking when recognized, and making appropriate contributions;
 - 110.3.b.6: Comprehension skills: listening, speaking, reading, writing, and thinking using multiple texts. The student uses metacognitive skills to both develop and deepen comprehension of increasingly complex texts. The student is expected to:
 - 110.3.b.6.H: synthesize information to create new understanding with adult assistance;
 - 110.3.b.7: Response skills: listening, speaking, reading, writing, and thinking using multiple texts. The student responds to an increasingly challenging variety of sources that are read, heard, or viewed. The student is expected to:
 - 110.3.b.7.D: retell texts in ways that maintain meaning;
 - 110.3.b.7.F: respond using newly acquired vocabulary as appropriate.
 - 110.3.b.13: Inquiry and research: listening, speaking, reading, writing, and thinking using multiple texts. The student engages in both short-term and sustained recursive inquiry processes for a variety of purposes. The student is expected to:
 - 110.3.b.13.B: develop and follow a research plan with adult assistance;
 - 110.3.b.13.D: demonstrate understanding of information gathered with adult assistance;
- 2nd Grade:
 - 110.4.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:



- 110.4.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including listening to others, speaking when recognized, making appropriate contributions, and building on the ideas of others;
- 110.4.b.6: Comprehension skills: listening, speaking, reading, writing, and thinking using multiple texts. The student uses metacognitive skills to both develop and deepen comprehension of increasingly complex texts. The student is expected to:
 - 110.4.b.6.H: synthesize information to create new understanding;
- 110.4.b.7: Response skills: listening, speaking, reading, writing, and thinking using multiple texts. The student responds to an increasingly challenging variety of sources that are read, heard, or viewed. The student is expected to:
 - 110.4.b.7.D: retell and paraphrase texts in ways that maintain meaning and logical order;
 - 110.4.b.7.F: respond using newly acquired vocabulary as appropriate.
- 110.4.b.13: Inquiry and research: listening, speaking, reading, writing, and thinking using multiple texts. The student engages in both short-term and sustained recursive inquiry processes for a variety of purposes. The student is expected to:
 - 110.4.b.13.B: develop and follow a research plan with adult assistance;
 - 110.4.b.13.E: demonstrate understanding of information gathered;

Math

- 2nd Grade:
 - 111.4.b.10: Data analysis. The student applies mathematical process standards to organize data to make it useful for interpreting information and solving problems. The student is expected to:
 - 111.4.b.10.D: draw conclusions and make predictions from information in a graph.

Science

- Kindergarten:
 - 112.2.b.1: Scientific and Engineering Practices: The student asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:
 - 112.2.b.1.A: ask questions and define problems based on observations or information from text, phenomena, models, or investigations



- 112.2.b.1.B: use scientific practices to plan and conduct simple descriptive investigations and use engineering practices to design solutions to problems
 - 112.2.b.1.F: record and organize data using pictures, numbers, words, symbols, and simple graphs
 - 112.2.b.3: Recurring Themes and Concepts: The student develops evidence-based explanations and communicates findings, conclusions, and proposed solutions. The student is expected to:
 - 112.2.b.3.B: communicate explanations and solutions individually and collaboratively in a variety of settings and formats
 - 112.2.b.3.C: listen actively to others' explanations to identify important evidence and engage respectfully in scientific discussion
 - 112.2.b.5: Recurring Themes and Concepts: The student uses recurring themes and concepts to make connections across disciplines. The student is expected to:
 - 112.2.b.5.A: identify and use patterns to describe phenomena or design solutions
 - 112.2.b.11: Organisms and Environments: The student knows that earth materials are important to everyday life. The student is expected to observe and generate examples of practical uses for rocks, soil, and water.
 - 112.2.b.12: Organisms and Environments: The student knows that plants and animals depend on the environment to meet their basic needs for survival. The student is expected to:
 - 112.2.b.12.B: observe and identify the dependence of animals on air, water, food, space, and shelter
 - 112.2.b.13: Organisms and Environments: The student knows that organisms resemble their parents and have structures and undergo processes that help them interact and survive within their environments. The student is expected to:
 - 112.2.b.13.b: identify the different structures that animals have that allow them to interact with their environment such as seeing, hearing, moving, and grasping objects
- 1st Grade:
 - 112.3.b.1: Scientific and Engineering Practices: The student asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:



- 112.3.b.1.A: ask questions and define problems based on observations or information from text, phenomena, models, or investigations
- 112.3.b.1.B: use scientific practices to plan and conduct simple descriptive investigations and use engineering practices to design solutions to problems
- 112.3.b.1.D: use tools, including hand lenses, goggles, heat-resistant gloves, trays, cups, bowls, beakers, sieves/sifters, tweezers, primary balance, notebooks, terrariums, aquariums, stream tables, soil samples (loam, sand, gravel, rocks, and clay), seeds, plants, windsock, pinwheel, student thermometer, demonstration thermometer, rain gauge, straws, ribbons, non-standard measuring items, flashlights, sandpaper, wax paper, items that are magnetic, nonmagnetic items, a variety of magnets, hot plate, aluminum foil, Sun-Moon-Earth model, and plant and animal life cycle models to observe, measure, test, and compare
- 112.3.b.1.F: record and organize data using pictures, numbers, words, symbols, and simple graphs
- 112.3.b.13: Organisms and Environments: The student knows that organisms resemble their parents and have structures and undergo processes that help them interact and survive within their environments. The student is expected to:
 - 112.3.b.13.A: identify the external structures of different animals and compare how those structures help different animals live, move, and meet basic needs for survival
 - 112.3.b.13.C: compare ways that young animals resemble their parents
- 2nd Grade:
 - 112.4.b.1: Scientific and Engineering Practices: The student asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:
 - 112.4.b.1.A: ask questions and define problems based on observations or information from text, phenomena, models, or investigations
 - 112.4.b.1.B: use scientific practices to plan and conduct simple descriptive investigations and use engineering practices to design solutions to problems
 - 112.4.b.1.D: use tools, including hand lenses, goggles, heat resistant gloves, trays, cups, bowls, beakers,



sieves/sifters, tweezers, primary balance, notebooks, terrariums, aquariums, stream tables, soil samples (loam, sand, gravel, rocks, and clay), seeds, plants, windsock, pinwheel, student thermometer, demonstration thermometer, rain gauge, straws, ribbons, non-standard measuring items, flashlights, sandpaper, wax paper, items that are magnetic, nonmagnetic items, a variety of magnets, hot plate, aluminum foil, Sun-Moon-Earth model, and plant and animal life cycle models to observe, measure, test, and compare

- 112.4.b.1.F: record and organize data using pictures, numbers, words, symbols, and simple graphs

Social Studies

○ Kindergarten:

- 113.11.c.5: Economics. The student understands the difference between human needs and wants and how they are met. The student is expected to:
 - 113.11.c.5.A: identify basic human needs of food, clothing, and shelter
- 113.11.c.13: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including technology. The student is expected to:
 - 113.11.c.13.D: sequence and categorize information.
- 113.11.c.14: Social studies skills. The student communicates in oral and visual forms. The student is expected to:
 - 113.11.c.14.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
 - 113.11.c.14.D: create and interpret visuals, including pictures and maps;

○ 1st Grade:

- 113.12.c.16: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including technology. The student is expected to:
 - 113.12.c.16.D: sequence and categorize information
- 113.12.c.17: Social studies skills. The student communicates in oral, visual, and written forms. The student is expected to:
 - 113.12.c.17.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;



- 113.12.c.17.D: create and interpret visual and written material;
- 2nd Grade:
 - 113.13.c.15: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including technology. The student is expected to:
 - 113.13.c.15.D: interpret oral, visual, and print material by sequencing, categorizing, identifying the main idea, predicting, comparing, and contrasting.
 - 113.13.c.16: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
 - 113.13.c.16.E: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
 - 113.13.c.16.F: create written and visual material such as stories, maps, and graphic organizers to express ideas;

Technology Applications

- Kindergarten:
 - 126.1.c.3: Creativity and innovation--innovative design process. The student takes an active role in learning by using a design process to solve authentic problems for a local or global audience, using a variety of technologies. The student is expected to:
 - 126.1.c.3.A: practice personal skills, including following directions, needed to successfully implement design processes;
- 1st Grade:
 - 126.2.c.3: Creativity and innovation--innovative design process. The student takes an active role in learning by using a design process to solve authentic problems for a local or global audience, using a variety of technologies. The student is expected to:
 - 126.2.c.3.A: practice personal skills and behaviors, including following directions and mental agility, needed to implement a design process successfully;
- 2nd Grade:
 - 126.3.c.3: Creativity and innovation--innovative design process. The student takes an active role in learning by using a design process to solve authentic problems for a local or global audience, using a variety of technologies. The student is expected to:



- 126.3.c.3.A: demonstrate personal skills and behaviors, including effective communication, following directions, and mental agility, needed to implement a design process successfully;

A TASTE OF LEAFY GREENS

English Language Arts

- Kindergarten:
 - 110.2.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.2.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including taking turns;
 - 110.2.b.6: Response skills: listening, speaking, reading, writing, and thinking using multiple texts. The student responds to an increasingly challenging variety of sources that are read, heard, or viewed. The student is expected to:
 - 110.2.b.6.E: interact with sources in meaningful ways such as illustrating or writing;
- 1st Grade:
 - 110.3.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.3.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including listening to others, speaking when recognized, and making appropriate contributions;
 - 110.3.b.7: Response skills: listening, speaking, reading, writing, and thinking using multiple texts. The student responds to an increasingly challenging variety of sources that are read, heard, or viewed. The student is expected to:
 - 110.3.b.7.E: interact with sources in meaningful ways such as illustrating or writing;
- 2nd Grade:
 - 110.4.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.4.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including listening to others, speaking when recognized, making appropriate contributions, and building on the ideas of others;



- 110.4.b.7: Response skills: listening, speaking, reading, writing, and thinking using multiple texts. The student responds to an increasingly challenging variety of sources that are read, heard, or viewed. The student is expected to:
 - 110.4.b.7.E: interact with sources in meaningful ways such as illustrating or writing;

Math

- Kindergarten:
 - 111.2.b.8: Data analysis. The student applies mathematical process standards to collect and organize data to make it useful for interpreting information. The student is expected to:
 - 111.2.b.8.A: collect, sort, and organize data into two or three categories;
- 1st Grade:
 - 111.3.b.8: Data analysis. The student applies mathematical process standards to organize data to make it useful for interpreting information and solving problems. The student is expected to:
 - 111.3.b.8.A: collect, sort, and organize data in up to three categories using models/representations such as tally marks or T-charts;

Science

- Kindergarten:
 - 112.2.b.1: Scientific and Engineering Practices: The student asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:
 - 112.2.b.1.C: identify, describe, and demonstrate safe practices during classroom and field investigations as outlined in Texas Education Agency-approved safety standards
 - 112.2.b.1.E: collect observations and measurements as evidence
 - 112.2.b.1.F: record and organize data using pictures, numbers, words, symbols, and simple graphs
 - 112.2.b.5: Recurring Themes and Concepts: The student uses recurring themes and concepts to make connections across disciplines. The student is expected to:
 - 112.2.b.5.F: describe the relationship between the structure and function of objects, organisms, and systems
 - 112.2.b.6: Matter and Its Properties: The student knows that objects have physical properties that determine how they are described and classified. The student is expected to identify and



record observable physical properties of objects, including shape, color, texture, and material, and generate ways to classify objects.

- 1st Grade:
 - 112.3.b.1: Scientific and Engineering Practices: The student asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:
 - 112.3.b.1.C: identify, describe, and demonstrate safe practices during classroom and field investigations as outlined in Texas Education Agency-approved safety standards
 - 112.3.b.1.E: collect observations and measurements as evidence
 - 112.3.b.1.F: record and organize data using pictures, numbers, words, symbols, and simple graphs
 - 112.3.b.5: Recurring Themes and Concepts: The student uses recurring themes and concepts to make connections across disciplines. The student is expected to:
 - 112.3.b.5.F: describe the relationship between the structure and function of objects, organisms, and systems
 - 112.3.b.6: Matter and Its Properties: The student knows that objects have physical properties that determine how they are described and classified. The student is expected to:
 - 112.3.b.6.A: classify objects by observable physical properties, including, shape, color, and texture, and attributes such as larger and smaller and heavier and lighter
 - 112.3.b.8: Matter and Its Properties: The student knows that energy is everywhere and can be observed in everyday life. The student is expected to:
 - 112.3.b.8.A: investigate and describe applications of heat in everyday life such as cooking food or using a clothes dryer
- 2nd Grade:
 - 112.4.b.1: Scientific and Engineering Practices: The student asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:
 - 112.4.b.1.C: identify, describe, and demonstrate safe practices during classroom and field investigations as



- outlined in Texas Education Agency-approved safety standards
- 112.4.b.1.E: collect observations and measurements as evidence
- 112.4.b.1.F: record and organize data using pictures, numbers, words, symbols, and simple graphs
- 112.4.b.5: Recurring Themes and Concepts: The student uses recurring themes and concepts to make connections across disciplines. The student is expected to:
 - 112.4.b.5.F: describe the relationship between the structure and function of objects, organisms, and systems
- 112.4.b.6: Matter and Its Properties: The student knows that matter has physical properties that determine how it is described, classified, and used. The student is expected to:
 - 112.4.b.6.C: demonstrate that small units such as building blocks can be combined or reassembled to form new objects for different purposes and explain the materials chosen based on their physical properties
- 112.4.b.13: Matter and Its Properties: The student knows that organisms undergo similar life processes and have structures that function to help them survive within their environments. The student is expected to:
 - 112.4.b.13.A: identify the roots, stems, leaves, flowers, fruits, and seeds of plants and compare how those structures help different plants meet their basic needs for survival

Social Studies

- Kindergarten:
 - 113.11.c.13: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including technology. The student is expected to:
 - 113.11.c.13.D: sequence and categorize information.
 - 113.11.c.14: Social studies skills. The student communicates in oral and visual forms. The student is expected to:
 - 113.11.c.14.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
 - 113.11.c.14.D: create and interpret visuals, including pictures and maps;
- 1st Grade:
 - 113.12.c.16: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a



variety of valid sources, including technology. The student is expected to:

- 113.12.c.16.D: sequence and categorize information.
- 113.12.c.17: Social studies skills. The student communicates in oral, visual, and written forms. The student is expected to:
 - 113.12.c.17.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
 - 113.12.c.17.D: create and interpret visual and written material;
- 2nd Grade:
 - 113.13.c.15: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including technology. The student is expected to:
 - 113.13.c.15.D: interpret oral, visual, and print material by sequencing, categorizing, identifying the main idea, predicting, comparing, and contrasting;
 - 113.13.c.16: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
 - 113.13.c.16.E: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
 - 113.13.c.16.F: create written and visual material such as stories, maps, and graphic organizers to express ideas;

AGRICULTURE AND ME

English Language Arts

- Kindergarten:
 - 110.2.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.2.b.1.C: share information and ideas by speaking audibly and clearly using the conventions of language
 - 110.2.b.5: Comprehension skills: listening, speaking, reading, writing, and thinking using multiple texts. The student uses metacognitive skills to both develop and deepen comprehension of increasingly complex texts. The student is expected to:
 - 110.2.b.5.H: synthesize information to create new understanding with adult assistance
- 1st Grade:



- 110.3.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.3.b.1.C: share information and ideas about the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language
- 110.3.b.2: Developing and sustaining foundational language skills: listening, speaking, reading, writing, and thinking--beginning reading and writing. The student develops word structure knowledge through phonological awareness, print concepts, phonics, and morphology to communicate, decode, and spell. The student is expected to:
 - 110.3.b.2.E: alphabetize a series of words to the first or second letter and use a dictionary to find words
 - 110.3.b.2.F: develop handwriting by printing words, sentences, and answers legibly leaving appropriate spaces between words
- 110.3.b.6: Comprehension skills: listening, speaking, reading, writing, and thinking using multiple texts. The student uses metacognitive skills to both develop and deepen comprehension of increasingly complex texts. The student is expected to:
 - 110.3.b.6.H: synthesize information to create new understanding with adult assistance
- 2nd Grade:
 - 110.4.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.4.b.1.C: share information and ideas that focus on the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language
 - 110.4.b.2: Developing and sustaining foundational language skills: listening, speaking, reading, writing, and thinking--beginning reading and writing. The student develops word structure knowledge through phonological awareness, print concepts, phonics, and morphology to communicate, decode, and spell. The student is expected to:
 - 110.4.b.2.D: alphabetize a series of words and use a dictionary or glossary to find words
 - 110.4.b.6: Comprehension skills: listening, speaking, reading, writing, and thinking using multiple texts. The student uses metacognitive skills to both develop and deepen comprehension of increasingly complex texts. The student is expected to:



TEXAS FARM BUREAU®

- 110.4.b.6.H: synthesize information to create new understanding

Technology Applications

- Kindergarten:
 - 126.1.c.3: Creativity and innovation--innovative design process. The student takes an active role in learning by using a design process to solve authentic problems for a local or global audience, using a variety of technologies. The student is expected to:
 - 126.1.c.3.A: practice personal skills, including following directions, needed to successfully implement design processes;
- 1st Grade:
 - 126.2.c.3: Creativity and innovation--innovative design process. The student takes an active role in learning by using a design process to solve authentic problems for a local or global audience, using a variety of technologies. The student is expected to:
 - 126.2.c.3.A: practice personal skills and behaviors, including following directions and mental agility, needed to implement a design process successfully;
- 2nd Grade:
 - 126.3.c.3: Creativity and innovation--innovative design process. The student takes an active role in learning by using a design process to solve authentic problems for a local or global audience, using a variety of technologies. The student is expected to:
 - 126.3.c.3.A: demonstrate personal skills and behaviors, including effective communication, following directions, and mental agility, needed to implement a design process successfully;

AGRICULTURE COUNTS

English Language Arts

- Kindergarten:
 - 110.2.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.2.b.1.C: share information and ideas by speaking audibly and clearly using the conventions of language



- 110.2.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including taking turns; and
- 1st Grade:
 - 110.3.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.3.b.1.C: share information and ideas about the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language
 - 110.3.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including listening to others, speaking when recognized, and making appropriate contributions; and
- 2nd Grade:
 - 110.4.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.4.b.1.C: share information and ideas that focus on the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language
 - 110.4.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including listening to others, speaking when recognized, making appropriate contributions, and building on the ideas of others; and

Math

- Kindergarten:
 - 111.2.b.1: Mathematical process standards. The student uses mathematical processes to acquire and demonstrate mathematical understanding. The student is expected to:
 - 111.2.b.1.A: apply mathematics to problems arising in everyday life, society, and the workplace;
 - 111.2.b.2: Number and operations. The student applies mathematical process standards to understand how to represent and compare whole numbers, the relative position and magnitude of whole numbers, and relationships within the numeration system. The student is expected to:
 - 111.2.b.2.A: count forward and backward to at least 20 with and without objects;
 - 111.2.b.2.B: read, write, and represent whole numbers from 0 to at least 20 with and without objects or pictures;
 - 111.2.b.2.C: count a set of objects up to at least 20 and demonstrate that the last number said tells the number of



- objects in the set regardless of their arrangement or order;
- 111.2.b.2.G: compare sets of objects up to at least 20 in each set using comparative language;
- 111.2.b.2.H: use comparative language to describe two numbers up to 20 presented as written numerals; and
- 111.2.b.8: Data analysis. The student applies mathematical process standards to collect and organize data to make it useful for interpreting information. The student is expected to:
 - 111.2.b.8.A: collect, sort, and organize data into two or three categories;
- 1st Grade:
 - 111.3.b.1: Mathematical process standards. The student uses mathematical processes to acquire and demonstrate mathematical understanding. The student is expected to:
 - 111.3.b.1.A: apply mathematics to problems arising in everyday life, society, and the workplace;
 - 111.3.b.2: Number and operations. The student applies mathematical process standards to represent and compare whole numbers, the relative position and magnitude of whole numbers, and relationships within the numeration system related to place value. The student is expected to:
 - 111.3.b.2.C: use objects, pictures, and expanded and standard forms to represent numbers up to 120;
 - 111.3.b.2.F: order whole numbers up to 120 using place value and open number lines; and
 - 111.3.b.8: Data analysis. The student applies mathematical process standards to organize data to make it useful for interpreting information and solving problems. The student is expected to:
 - 111.3.b.8.A: collect, sort, and organize data in up to three categories using models/representations such as tally marks or T-charts;
- 2nd Grade:
 - 111.4.b.1: Mathematical process standards. The student uses mathematical processes to acquire and demonstrate mathematical understanding. The student is expected to:
 - 111.4.b.1.A: apply mathematics to problems arising in everyday life, society, and the workplace;

Social Studies

- Kindergarten:
 - 113.11.c.2: History. The student understands how historical figures helped shape the state and nation. The student is expected to identify contributions of historical figures, including Stephen F. Austin, George Washington, Christopher Columbus,



and José Antonio Navarro, who helped to shape the state and nation.

- 113.11.c.13: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including technology. The student is expected to:
 - 113.11.c.13.D: sequence and categorize information.
- 113.11.c.14: Social studies skills. The student communicates in oral and visual forms. The student is expected to:
 - 113.11.c.14.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies
- 1st Grade:
 - 113.12.c.2: History. The student understands how historical figures helped shape the state and nation. The student is expected to:
 - 113.12.c.2.A: identify contributions of historical figures, including Sam Houston, George Washington, Abraham Lincoln, and Martin Luther King Jr., who have influenced the state and nation;
 - 113.12.c.16: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including technology. The student is expected to:
 - 113.12.c.16.D: sequence and categorize information.
 - 113.12.c.17: Social studies skills. The student communicates in oral, visual, and written forms. The student is expected to:
 - 113.12.c.17.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
- 2nd Grade:
 - 113.13.c.15: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including technology. The student is expected to:
 - 113.13.c.15.D: interpret oral, visual, and print material by sequencing, categorizing, identifying the main idea, predicting, comparing, and contrasting
 - 113.13.c.16: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
 - 113.13.c.16.E: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;



English Language Arts

- Kindergarten:
 - 110.2.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.2.b.1.C: share information and ideas by speaking audibly and clearly using the conventions of language
 - 110.2.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including taking turns
 - 110.2.b.5: Comprehension skills: listening, speaking, reading, writing, and thinking using multiple texts. The student uses metacognitive skills to both develop and deepen comprehension of increasingly complex texts. The student is expected to:
 - 110.2.b.5.G: evaluate details to determine what is most important with adult assistance
 - 110.2.b.5.H: synthesize information to create new understanding with adult assistance
 - 110.2.b.6: Response skills: listening, speaking, reading, writing, and thinking using multiple texts. The student responds to an increasingly challenging variety of sources that are read, heard, or viewed. The student is expected to:
 - 110.2.b.6.E: interact with sources in meaningful ways such as illustrating or writing
- 1st Grade:
 - 110.3.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.3.b.1.C: share information and ideas about the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language
 - 110.3.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including listening to others, speaking when recognized, and making appropriate contributions
 - 110.3.b.2: Developing and sustaining foundational language skills: listening, speaking, reading, writing, and thinking--beginning reading and writing. The student develops word structure knowledge through phonological awareness, print concepts, phonics, and morphology to communicate, decode, and spell. The student is expected to:
 - 110.3.b.2.F: develop handwriting by printing words, sentences, and answers legibly leaving appropriate spaces between words



- 110.3.b.6: Comprehension skills: listening, speaking, reading, writing, and thinking using multiple texts. The student uses metacognitive skills to both develop and deepen comprehension of increasingly complex texts. The student is expected to:
 - 110.3.b.6.G: evaluate details to determine what is most important with adult assistance
 - 110.3.b.6.H: synthesize information to create new understanding with adult assistance
- 110.3.b.7: Response skills: listening, speaking, reading, writing, and thinking using multiple texts. The student responds to an increasingly challenging variety of sources that are read, heard, or viewed. The student is expected to:
 - 110.3.b.7.E: interact with sources in meaningful ways such as illustrating or writing
- 2nd Grade:
 - 110.4.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.4.b.1.C: share information and ideas that focus on the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language
 - 110.4.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including listening to others, speaking when recognized, making appropriate contributions, and building on the ideas of others
 - 110.4.b.6: Comprehension skills: listening, speaking, reading, writing, and thinking using multiple texts. The student uses metacognitive skills to both develop and deepen comprehension of increasingly complex texts. The student is expected to:
 - 110.4.b.6.G: evaluate details read to determine key ideas
 - 110.4.b.6.H: synthesize information to create new understanding
 - 110.4.b.7: Response skills: listening, speaking, reading, writing, and thinking using multiple texts. The student responds to an increasingly challenging variety of sources that are read, heard, or viewed. The student is expected to:
 - 110.4.b.7.E: interact with sources in meaningful ways such as illustrating or writing

Social Studies

- Kindergarten:
 - 113.11.c.5: Economics. The student understands the difference between human needs and wants and how they are met. The student is expected to:



- 113.11.b.5.A: identify basic human needs of food, clothing, and shelter
- 113.11.b.5.C: explain how basic human needs and wants can be met
- 113.11.c.13: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including technology. The student is expected to:
 - 113.11.c.13.D: sequence and categorize information
- 113.11.c.14: Social studies skills. The student communicates in oral and visual forms. The student is expected to:
 - 113.11.c.14.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies
 - 113.11.c.14.D: create and interpret visuals, including pictures and maps
- 1st Grade:
 - 113.12.c.16: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including technology. The student is expected to:
 - 113.12.c.16.D: sequence and categorize information
 - 113.12.c.17: Social studies skills. The student communicates in oral, visual, and written forms. The student is expected to:
 - 113.12.c.17.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
 - 113.12.c.17.D: create and interpret visual and written material
- 2nd Grade:
 - 113.13.c.7: Economics. The student understands the roles of producers and consumers in the production of goods and services. The student is expected to:
 - 113.13.c.7.A: distinguish between producing and consuming
 - 113.13.c.7.B: identify ways in which people are both producers and consumers
 - 113.13.c.7.C: trace the development of a product from a natural resource to a finished product
 - 113.13.c.15: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including technology. The student is expected to:



- 113.13.c.15.D: interpret oral, visual, and print material by sequencing, categorizing, identifying the main idea, predicting, comparing, and contrasting
- 113.13.c.16: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
 - 113.13.c.16.E: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
 - 113.13.c.16.F: create written and visual material such as stories, maps, and graphic organizers to express ideas

ALL KINDS OF FARMS

English Language Arts

- Kindergarten:
 - 110.2.b.2: Developing and sustaining foundational language skills: listening, speaking, reading, writing, and thinking--beginning reading and writing. The student develops word structure knowledge through phonological awareness, print concepts, phonics, and morphology to communicate, decode, and spell. The student is expected to:
 - 110.2.b.2.A: demonstrate phonological awareness by:
 - 110.2.b.2.A.i: identifying and producing rhyming words;
 - 110.2.b.2.B: demonstrate and apply phonetic knowledge by:
 - 110.2.b.2.B.i: identifying and matching the common sounds that letters represent;
 - 110.2.b.3: Developing and sustaining foundational language skills: listening, speaking, reading, writing, and thinking--vocabulary. The student uses newly acquired vocabulary expressively. The student is expected to:
 - 110.2.b.3.B: use illustrations and texts the student is able to read or hear to learn or clarify word meanings;
 - 110.2.b.8: Multiple genres: listening, speaking, reading, writing, and thinking using multiple texts--genres. The student recognizes and analyzes genre-specific characteristics, structures, and purposes within and across increasingly complex traditional, contemporary, classical, and diverse texts. The student is expected to:
 - 110.2.b.8.B: discuss rhyme and rhythm in nursery rhymes and a variety of poems;
- 1st Grade:
 - 110.3.b.2: Developing and sustaining foundational language skills: listening, speaking, reading, writing, and thinking--



beginning reading and writing. The student develops word structure knowledge through phonological awareness, print concepts, phonics, and morphology to communicate, decode, and spell. The student is expected to:

- 110.3.b.2.A: demonstrate phonological awareness by:
 - 110.3.b.2.A.i: producing a series of rhyming words;
- 110.3.b.3: Developing and sustaining foundational language skills: listening, speaking, reading, writing, and thinking--vocabulary. The student uses newly acquired vocabulary expressively. The student is expected to:
 - 110.3.b.3.B: use illustrations and texts the student is able to read or hear to learn or clarify word meanings;
- 110.3.b.9: Multiple genres: listening, speaking, reading, writing, and thinking using multiple texts--genres. The student recognizes and analyzes genre-specific characteristics, structures, and purposes within and across increasingly complex traditional, contemporary, classical, and diverse texts. The student is expected to:
 - 110.3.b.9.B: discuss rhyme, rhythm, repetition, and alliteration in a variety of poems;
- 2nd Grade:
 - 110.4.b.2: Developing and sustaining foundational language skills: listening, speaking, reading, writing, and thinking--beginning reading and writing. The student develops word structure knowledge through phonological awareness, print concepts, phonics, and morphology to communicate, decode, and spell. The student is expected to:
 - 110.4.2.A: demonstrate phonological awareness by:
 - 110.4.2.A.i: producing a series of rhyming words;
 - 110.4.b.3: Developing and sustaining foundational language skills: listening, speaking, reading, writing, and thinking--vocabulary. The student uses newly acquired vocabulary expressively. The student is expected to:
 - 110.4.b.3.B: use context within and beyond a sentence to determine the meaning of unfamiliar words;

Math

- Kindergarten:
 - 111.2.b.1: Mathematical process standards. The student uses mathematical processes to acquire and demonstrate mathematical understanding. The student is expected to:
 - 111.2.b.1.C: select tools, including real objects, manipulatives, paper and pencil, and technology as



- appropriate, and techniques, including mental math, estimation, and number sense as appropriate, to solve problems;
- 111.2.b.1.E: create and use representations to organize, record, and communicate mathematical ideas;
- 111.2.b.2: Number and operations. The student applies mathematical process standards to understand how to represent and compare whole numbers, the relative position and magnitude of whole numbers, and relationships within the numeration system. The student is expected to:
 - 111.2.b.2.I: compose and decompose numbers up to 10 with objects and pictures.
- 1st Grade:
 - 111.3.b.1: Mathematical process standards. The student uses mathematical processes to acquire and demonstrate mathematical understanding. The student is expected to:
 - 111.3.b.1.C: select tools, including real objects, manipulatives, paper and pencil, and technology as appropriate, and techniques, including mental math, estimation, and number sense as appropriate, to solve problems;
 - 111.3.b.1.E: create and use representations to organize, record, and communicate mathematical ideas;
- 2nd Grade:
 - 111.4.b.1: Mathematical process standards. The student uses mathematical processes to acquire and demonstrate mathematical understanding. The student is expected to:
 - 111.4.b.1.C: select tools, including real objects, manipulatives, paper and pencil, and technology as appropriate, and techniques, including mental math, estimation, and number sense as appropriate, to solve problems;
 - 111.4.b.1.E: create and use representations to organize, record, and communicate mathematical ideas;

Science

- Kindergarten:
 - 112.2.b.1: Scientific and Engineering Practices: The student asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:
 - 112.2.b.1.E: collect observations and measurements as evidence
 - 112.2.b.4: Recurring Themes and Concepts: The student knows the contributions of scientists and recognizes the importance of



scientific research and innovation on society. The student is expected to:

- 112.2.b.4.A: explain how science or an innovation can help others
- 112.2.b.5: Recurring Themes and Concepts: The student uses recurring themes and concepts to make connections across disciplines. The student is expected to:
 - 112.2.b.5.A: identify and use patterns to describe phenomena or design solutions
- 112.2.b.10: Organisms and Environments: The student knows that the natural world includes earth materials and systems that can be observed. The student is expected to:
 - 112.2.b.10.B: observe and describe weather changes from day to day and over seasons
- 112.2.b.12: Organisms and Environments: The student knows that plants and animals depend on the environment to meet their basic needs for survival. The student is expected to:
 - 112.2.b.12.A: observe and identify the dependence of plants on air, sunlight, water, nutrients in the soil, and space to grow

Social Studies

- Kindergarten:
 - 113.11.c.14: Social studies skills. The student communicates in oral and visual forms. The student is expected to:
 - 113.11.c.14.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
 - 113.11.c.14.D: create and interpret visuals, including pictures and maps;
- 1st Grade:
 - 113.12.c.9: Economics. The student understands the value of work. The student is expected to:
 - 113.12.c.9.B: describe how various jobs contribute to the production of goods and services.
 - 113.12.c.17: Social studies skills. The student communicates in oral, visual, and written forms. The student is expected to:
 - 113.12.c.17.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
 - 113.12.c.17.D: create and interpret visual and written material;
- 2nd Grade:



- 113.13.c.7: Economics. The student understands the roles of producers and consumers in the production of goods and services. The student is expected to:
 - 113.13.c.7.C: trace the development of a product from a natural resource to a finished product.
- 113.13.c.16: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
 - 113.13.c.16.E: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;

ANIMAL OR PLANT?

English Language Arts

- Kindergarten:
 - 110.2.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.2.b.1.C: share information and ideas by speaking audibly and clearly using the conventions of language
 - 110.2.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including taking turns
 - 110.2.b.5: Comprehension skills: listening, speaking, reading, writing, and thinking using multiple texts. The student uses metacognitive skills to both develop and deepen comprehension of increasingly complex texts. The student is expected to:
 - 110.2.b.5.H: synthesize information to create new understanding with adult assistance
- 1st Grade:
 - 110.3.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.3.b.1.C: share information and ideas about the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language
 - 110.3.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including listening to others, speaking when recognized, and making appropriate contributions
 - 110.3.b.2: Developing and sustaining foundational language skills: listening, speaking, reading, writing, and thinking--beginning reading and writing. The student develops word



structure knowledge through phonological awareness, print concepts, phonics, and morphology to communicate, decode, and spell. The student is expected to:

- 110.3.b.2.F: develop handwriting by printing words, sentences, and answers legibly leaving appropriate spaces between words
- 110.4.b.6: Comprehension skills: listening, speaking, reading, writing, and thinking using multiple texts. The student uses metacognitive skills to both develop and deepen comprehension of increasingly complex texts. The student is expected to:
 - 110.4.b.6.H: synthesize information to create new understanding
- 2nd Grade:
 - 110.4.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.4.b.1.C: share information and ideas that focus on the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language
 - 110.4.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including listening to others, speaking when recognized, making appropriate contributions, and building on the ideas of others
 - 110.4.b.6: Comprehension skills: listening, speaking, reading, writing, and thinking using multiple texts. The student uses metacognitive skills to both develop and deepen comprehension of increasingly complex texts. The student is expected to:
 - 110.4.b.6.H: synthesize information to create new understanding

Social Studies

- Kindergarten:
 - 113.11.c.13: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including technology. The student is expected to:
 - 113.11.c.13.D: sequence and categorize information
 - 113.11.c.14: Social studies skills. The student communicates in oral and visual forms. The student is expected to:
 - 113.11.c.14.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies
- 1st Grade:
 - 113.12.c.16: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a



variety of valid sources, including technology. The student is expected to

- 113.12.c.16.D: sequence and categorize information
- 113.12.c.17: Social studies skills. The student communicates in oral, visual, and written forms. The student is expected to:
 - 113.12.c.17.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies
- 2nd Grade:
 - 113.13.c.15: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including technology. The student is expected to:
 - 113.13.c.15.D: interpret oral, visual, and print material by sequencing, categorizing, identifying the main idea, predicting, comparing, and contrasting.
 - 113.13.c.16: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
 - 113.13.c.16.E: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;

ANIMALS ON THE FARM

English Language Arts

- Kindergarten:
 - 110.2.b.2: Developing and sustaining foundational language skills: listening, speaking, reading, writing, and thinking--beginning reading and writing. The student develops word structure knowledge through phonological awareness, print concepts, phonics, and morphology to communicate, decode, and spell. The student is expected to:
 - 110.2.b.2.B: demonstrate and apply phonetic knowledge by:
 - 110.2.b.2.B.i: identifying and matching the common sounds that letters represent;
 - 110.2.b.2.B.ii: using letter-sound relationships to decode, including VC, CVC, CCVC, and CVCC words;
 - 110.2.b.3: Developing and sustaining foundational language skills: listening, speaking, reading, writing, and thinking--vocabulary. The student uses newly acquired vocabulary expressively. The student is expected to:
 - 110.2.b.3.B: use illustrations and texts the student is able to read or hear to learn or clarify word meanings;
- 1st Grade:



- 110.3.b.2: Developing and sustaining foundational language skills: listening, speaking, reading, writing, and thinking--beginning reading and writing. The student develops word structure knowledge through phonological awareness, print concepts, phonics, and morphology to communicate, decode, and spell. The student is expected to:
 - 110.3.b.2.B: demonstrate and apply phonetic knowledge by:
 - 110.3.b.2.B.i: decoding words in isolation and in context by applying common letter sound correspondences;
 - 110.3.b.2.B.ii: decoding words with initial and final consonant blends, digraphs, and trigraphs;
 - 110.3.b.2.B.iii: decoding words with closed syllables; open syllables; VCe syllables; vowel teams, including vowel digraphs and diphthongs; and r-controlled syllables;
- 110.3.b.3: Developing and sustaining foundational language skills: listening, speaking, reading, writing, and thinking--vocabulary. The student uses newly acquired vocabulary expressively. The student is expected to:
 - 110.3.b.3.B: use illustrations and texts the student is able to read or hear to learn or clarify word meanings;
- 2nd Grade:
 - 110.4.b.2: Developing and sustaining foundational language skills: listening, speaking, reading, writing, and thinking--beginning reading and writing. The student develops word structure knowledge through phonological awareness, print concepts, phonics, and morphology to communicate, decode, and spell. The student is expected to:
 - 110.4.b.2.B: demonstrate and apply phonetic knowledge by:
 - 110.4.b.2.B.i: decoding words with short, long, or variant vowels, trigraphs, and blends;
 - 110.4.b.3: Developing and sustaining foundational language skills: listening, speaking, reading, writing, and thinking--vocabulary. The student uses newly acquired vocabulary expressively. The student is expected to:
 - 110.4.b.3.B: use context within and beyond a sentence to determine the meaning of unfamiliar words;

Math

- Kindergarten:



- 111.2.b.1: Mathematical process standards. The student uses mathematical processes to acquire and demonstrate mathematical understanding. The student is expected to:
 - 111.2.b.1.C: select tools, including real objects, manipulatives, paper and pencil, and technology as appropriate, and techniques, including mental math, estimation, and number sense as appropriate, to solve problems;
- 111.2.b.3: Number and operations. The student applies mathematical process standards to develop an understanding of addition and subtraction situations in order to solve problems. The student is expected to:
 - 111.2.b.3.A: model the action of joining to represent addition and the action of separating to represent subtraction;
- 1st Grade:
 - 111.3.b.1: Mathematical process standards. The student uses mathematical processes to acquire and demonstrate mathematical understanding. The student is expected to:
 - 111.3.b.1.C: select tools, including real objects, manipulatives, paper and pencil, and technology as appropriate, and techniques, including mental math, estimation, and number sense as appropriate, to solve problems;
 - 111.3.b.4: Number and operations. The student applies mathematical process standards to develop and use strategies for whole number addition and subtraction computations in order to solve problems. The student is expected to:
 - 111.3.b.4.D: apply basic fact strategies to add and subtract within 20, including making 10 and decomposing a number leading to a 10;
- 2nd Grade:
 - 111.4.b.1: Mathematical process standards. The student uses mathematical processes to acquire and demonstrate mathematical understanding. The student is expected to:
 - 111.4.b.1.C: select tools, including real objects, manipulatives, paper and pencil, and technology as appropriate, and techniques, including mental math, estimation, and number sense as appropriate, to solve problems;
 - 111.4.b.4: Number and operations. The student applies mathematical process standards to develop and use strategies



and methods for whole number computations in order to solve addition and subtraction problems with efficiency and accuracy. The student is expected to:

- 111.4.b.4.A: recall basic facts to add and subtract within 20 with automaticity;

Science

- Kindergarten:
 - 112.2.b.4: Recurring Themes and Concepts: The student knows the contributions of scientists and recognizes the importance of scientific research and innovation on society. The student is expected to:
 - 112.2.b.4.A: explain how science or an innovation can help others
 - 112.2.b.12: Organisms and Environments: The student knows that plants and animals depend on the environment to meet their basic needs for survival. The student is expected to:
 - 112.2.b.12.B: observe and identify the dependence of animals on air, water, food, space, and shelter

Social Studies

- Kindergarten:
 - 113.11.c.14: Social studies skills. The student communicates in oral and visual forms. The student is expected to:
 - 113.11.c.14.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
 - 113.11.c.14.D: create and interpret visuals, including pictures and maps;
- 1st Grade:
 - 113.12.c.9: Economics. The student understands the value of work. The student is expected to:
 - 113.12.c.9.B: describe how various jobs contribute to the production of goods and services.
 - 113.12.c.17: Social studies skills. The student communicates in oral, visual, and written forms. The student is expected to:
 - 113.12.c.17.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
 - 113.12.c.17.D: create and interpret visual and written material;
- 2nd Grade:
 - 113.13.c.7: Economics. The student understands the roles of producers and consumers in the production of goods and services. The student is expected to:



- 113.13.c.7.C: trace the development of a product from a natural resource to a finished product.
- 113.13.c.16: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
 - 113.13.c.16.E: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;

BA, RAM, EWE...SHEEP TALES

English Language Arts

- Kindergarten:
 - 110.2.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.2.b.1.C: share information and ideas by speaking audibly and clearly using the conventions of language
 - 110.2.b.5: Comprehension skills: listening, speaking, reading, writing, and thinking using multiple texts. The student uses metacognitive skills to both develop and deepen comprehension of increasingly complex texts. The student is expected to:
 - 110.2.b.5.G: evaluate details to determine what is most important with adult assistance
 - 110.2.b.5.H: synthesize information to create new understanding with adult assistance
 - 110.2.b.6: Response skills: listening, speaking, reading, writing, and thinking using multiple texts. The student responds to an increasingly challenging variety of sources that are read, heard, or viewed. The student is expected to:
 - 110.2.b.6.E: interact with sources in meaningful ways such as illustrating or writing
 - 110.2.b.6.F: respond using newly acquired vocabulary as appropriate.
- 1st Grade:
 - 110.3.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.3.b.1.C: share information and ideas about the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language
 - 110.3.b.2: Developing and sustaining foundational language skills: listening, speaking, reading, writing, and thinking--



beginning reading and writing. The student develops word structure knowledge through phonological awareness, print concepts, phonics, and morphology to communicate, decode, and spell. The student is expected to:

- 110.3.b.2.F: develop handwriting by printing words, sentences, and answers legibly leaving appropriate spaces between words
- 110.3.b.6: Comprehension skills: listening, speaking, reading, writing, and thinking using multiple texts. The student uses metacognitive skills to both develop and deepen comprehension of increasingly complex texts. The student is expected to:
 - 110.3.b.6.G: evaluate details to determine what is most important with adult assistance
 - 110.3.b.6.H: synthesize information to create new understanding with adult assistance
- 110.3.b.7: Response skills: listening, speaking, reading, writing, and thinking using multiple texts. The student responds to an increasingly challenging variety of sources that are read, heard, or viewed. The student is expected to:
 - 110.3.b.7.E: interact with sources in meaningful ways such as illustrating or writing
 - 110.3.b.7.F: respond using newly acquired vocabulary as appropriate.
- 2nd Grade:
 - 110.4.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.4.b.1.C: share information and ideas that focus on the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language
 - 110.4.b.6: Comprehension skills: listening, speaking, reading, writing, and thinking using multiple texts. The student uses metacognitive skills to both develop and deepen comprehension of increasingly complex texts. The student is expected to:
 - 110.4.b.6.G: evaluate details read to determine key ideas
 - 110.4.b.6.H: synthesize information to create new understanding
 - 110.4.b.7: Response skills: listening, speaking, reading, writing, and thinking using multiple texts. The student responds to an increasingly challenging variety of sources that are read, heard, or viewed. The student is expected to:
 - 110.4.b.7.E: interact with sources in meaningful ways such as illustrating or writing



- 110.4.b.7.F: respond using newly acquired vocabulary as appropriate.

BE A DETEGGTIVE!

English Language Arts

- Kindergarten:
 - 110.2.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.2.b.1.C: share information and ideas by speaking audibly and clearly using the conventions of language;
 - 110.2.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including taking turns; and
 - 110.2.b.2: Developing and sustaining foundational language skills: listening, speaking, reading, writing, and thinking--beginning reading and writing. The student develops word structure knowledge through phonological awareness, print concepts, phonics, and morphology to communicate, decode, and spell. The student is expected to:
 - 110.2.b.2.E: develop handwriting by accurately forming all uppercase and lowercase letters using appropriate directionality.
- 1st Grade:
 - 110.3.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.3.b.1.C: share information and ideas about the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language;
 - 110.3.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including listening to others, speaking when recognized, and making appropriate contributions; and
 - 110.3.b.2: Developing and sustaining foundational language skills: listening, speaking, reading, writing, and thinking--beginning reading and writing. The student develops word structure knowledge through phonological awareness, print concepts, phonics, and morphology to communicate, decode, and spell. The student is expected to:
 - 110.3.b.2.F: develop handwriting by printing words, sentences, and answers legibly leaving appropriate spaces between words.



- 2nd Grade:
 - 110.4.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.4.b.1.C: share information and ideas that focus on the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language;
 - 110.4.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including listening to others, speaking when recognized, making appropriate contributions, and building on the ideas of others; and

Math

- Kindergarten:
 - 111.2.b.7: Geometry and measurement. The student applies mathematical process standards to directly compare measurable attributes. The student is expected to:
 - 111.2.b.7.A: give an example of a measurable attribute of a given object, including length, capacity, and weight; and
 - 111.2.b.7.B: compare two objects with a common measurable attribute to see which object has more of/less of the attribute and describe the difference.
- 1st Grade:
 - 111.3.b.7: Geometry and measurement. The student applies mathematical process standards to select and use units to describe length and time. The student is expected to:
 - 111.3.b.7.A: use measuring tools to measure the length of objects to reinforce the continuous nature of linear measurement;
 - 111.3.b.7.D: describe a length to the nearest whole unit using a number and a unit; and
 - 111.3.b.8: Data analysis. The student applies mathematical process standards to organize data to make it useful for interpreting information and solving problems. The student is expected to:
 - 111.3.b.8.A: collect, sort, and organize data in up to three categories using models/representations such as tally marks or T-charts;
- 2nd Grade:
 - 111.4.b.9: Geometry and measurement. The student applies mathematical process standards to select and use units to describe length, area, and time. The student is expected to:



- 111.4.b.9.D: determine the length of an object to the nearest marked unit using rulers, yardsticks, meter sticks, or measuring tapes;

Science

- Kindergarten:
 - 112.2.b.1: Scientific and engineering practices. The student asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:
 - 112.2.b.1.A: ask questions and define problems based on observations or information from text, phenomena, models, or investigations;
 - 112.2.b.1.B: use scientific practices to plan and conduct simple descriptive investigations and use engineering practices to design solutions to problems;
 - 112.2.b.1.E: collect observations and measurements as evidence;
 - 112.2.b.1.F: record and organize data using pictures, numbers, words, symbols, and simple graphs
 - 112.2.b.2: Scientific and engineering practices. The student analyzes and interprets data to derive meaning, identify features and patterns, and discover relationships or correlations to develop evidence-based arguments or evaluate designs. The student is expected to:
 - 112.2.b.2.B: analyze data by identifying significant features and patterns
 - 112.2.b.6: Matter and its properties. The student knows that objects have physical properties that determine how they are described and classified. The student is expected to identify and record observable physical properties of objects, including shape, color, texture, and material, and generate ways to classify objects.
- 1st Grade:
 - 112.3.b.1: Scientific and engineering practices. The student asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:
 - 112.3.b.1.A: ask questions and define problems based on observations or information from text, phenomena, models, or investigations



- 112.3.b.1.B: use scientific practices to plan and conduct simple descriptive investigations and use engineering practices to design solutions to problems
 - 112.3.b.1.E: collect observations and measurements as evidence;
 - 112.3.b.1.F: record and organize data using pictures, numbers, words, symbols, and simple graphs
 - 112.3.b.2: Scientific and engineering practices. The student analyzes and interprets data to derive meaning, identify features and patterns, and discover relationships or correlations to develop evidence-based arguments or evaluate designs. The student is expected to:
 - 112.3.b.2.B analyze data by identifying significant features and patterns;
 - 112.3.b.6: Matter and its properties. The student knows that objects have physical properties that determine how they are described and classified. The student is expected to:
 - 112.3.b.6.A: classify objects by observable physical properties, including shape, color, and texture, and attributes such as larger and smaller and heavier and lighter
- 2nd Grade:
 - 112.4.b.1: Scientific and engineering practices. The student asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:
 - 112.4.b.1.A: ask questions and define problems based on observations or information from text, phenomena, models, or investigations;
 - 112.4.b.1.B: use scientific practices to plan and conduct simple descriptive investigations and use engineering practices to design solutions to problems;
 - 112.4.b.1.E: collect observations and measurements as evidence;
 - 112.4.b.1.F: record and organize data using pictures, numbers, words, symbols, and simple graphs
 - 112.4.b.2: Scientific and engineering practices. The student analyzes and interprets data to derive meaning, identify features and patterns, and discover relationships or correlations to develop evidence-based arguments or evaluate designs. The student is expected to:



- 112.4.b.2.B analyze data by identifying significant features and patterns;
- 112.4.b.3: Scientific and engineering practices. The student develops evidence-based explanations and communicates findings, conclusions, and proposed solutions. The student is expected to:
 - 112.4.b.3.B communicate explanations and solutions individually and collaboratively in a variety of settings and formats

Social Studies

- Kindergarten:
 - 113.11.c.14: Social studies skills. The student communicates in oral and visual forms. The student is expected to:
 - 113.11.c.14.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
 - 113.11.c.14.D: create and interpret visuals, including pictures and maps
- 1st Grade:
 - 113.12.c.17: Social studies skills. The student communicates in oral, visual, and written forms. The student is expected to:
 - 113.112.c.17.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
 - 113.112.c.17.D: create and interpret visual and written material;
- 2nd Grade:
 - 113.13.c.16: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
 - 113.13.c.16.E: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
 - 113.13.c.16.F: create written and visual material such as stories, maps, and graphic organizers to express ideas;

BEAN SEED CYCLE

English Language Arts

- Kindergarten:
 - 110.2.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.2.b.1.C: share information and ideas by speaking audibly and clearly using the conventions of language



- 110.2.b.6: Response skills: listening, speaking, reading, writing, and thinking using multiple texts. The student responds to an increasingly challenging variety of sources that are read, heard, or viewed. The student is expected to:
 - 110.2.b.6.F: respond using newly acquired vocabulary as appropriate.
- 1st Grade:
 - 110.3.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.3.b.1.C: share information and ideas about the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language
 - 110.3.b.7: Response skills: listening, speaking, reading, writing, and thinking using multiple texts. The student responds to an increasingly challenging variety of sources that are read, heard, or viewed. The student is expected to:
 - 110.3.b.7.F: respond using newly acquired vocabulary as appropriate.
- 2nd Grade:
 - 110.4.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.4.b.1.C: share information and ideas that focus on the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language
 - 110.4.b.7: Response skills: listening, speaking, reading, writing, and thinking using multiple texts. The student responds to an increasingly challenging variety of sources that are read, heard, or viewed. The student is expected to:
 - 110.4.b.7.F: respond using newly acquired vocabulary as appropriate.

Science

- Kindergarten:
 - 112.2.b.2: Scientific and engineering practices. The student analyzes and interprets data to derive meaning, identify features and patterns, and discover relationships or correlations to develop evidence-based arguments or evaluate designs. The student is expected to:
 - 112.2.b.2.B: analyze data by identifying significant features and patterns
 - 112.2.b.13: Organisms and environments. The student knows that organisms resemble their parents and have structures and



undergo processes that help them interact and survive within their environments. The student is expected to:

- 112.2.b.13.A: identify the structures of plants, including roots, stems, leaves, flowers, and fruits;
- 112.2.b.13.B: identify the different structures that animals have that allow them to interact with their environment such as seeing, hearing, moving, and grasping objects
- 112.2.b.13.C: identify and record the changes from seed, seedling, plant, flower, and fruit in a simple plant life cycle
- 1st Grade:
 - 112.3.b.2: Scientific and engineering practices. The student analyzes and interprets data to derive meaning, identify features and patterns, and discover relationships or correlations to develop evidence-based arguments or evaluate designs. The student is expected to:
 - 112.3.b.2.B: analyze data by identifying significant features and patterns
- 2nd Grade:
 - 112.4.b.2: Scientific and engineering practices. The student analyzes and interprets data to derive meaning, identify features and patterns, and discover relationships or correlations to develop evidence-based arguments or evaluate designs. The student is expected to:
 - 112.4.b.2.B: analyze data by identifying significant features and patterns
 - 112.4.b.12: Organisms and environments. The student knows that living organisms have basic needs that must be met through interactions within their environment. The student is expected to:
 - 112.4.b.12.A: describe how the physical characteristics of environments, including the amount of rainfall, support plants and animals within an ecosystem

CULTURES, FOOD, AND COMMUNITIES AROUND THE WORLD

English Language Arts

- Kindergarten:
 - 110.2.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.2.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including taking turns;



- 1st Grade:
 - 110.3.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.3.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including listening to others, speaking when recognized, and making appropriate contributions;
- 2nd Grade:
 - 110.4.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.4.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including listening to others, speaking when recognized, making appropriate contributions, and building on the ideas of others;

Science

- Kindergarten:
 - 112.2.b.4: Scientific and Engineering Practices: The student knows the contributions of scientists and recognizes the importance of scientific research and innovation on society. The student is expected to:
 - 112.2.b.4.B: identify scientists and engineers such as Isaac Newton, Mae Jemison, and Ynes Mexia and explore what different scientists and engineers do.
 - 112.2.b.5: Recurring Themes and Concepts: The student uses recurring themes and concepts to make connections across disciplines. The student is expected to:
 - 112.2.b.5.G: describe how factors or conditions can cause objects, organisms, and systems to either change or stay the same
 - 112.2.b.10.: Matter and Its Properties:) The student knows that the natural world includes earth materials and systems that can be observed. The student is expected to:
 - 112.2.b.10.B: observe and describe weather changes from day to day and over seasons
- 1st Grade:
 - 112.3.b.5: Recurring Themes and Concepts: The student uses recurring themes and concepts to make connections across disciplines. The student is expected to:



- 112.3.b.5.G: describe how factors or conditions can cause objects, organisms, and systems to either change or stay the same
- 112.3.b.8: Matter and Its Properties: The student knows that energy is everywhere and can be observed in everyday life. The student is expected to:
 - 112.3.b.8.A: investigate and describe applications of heat in everyday life such as cooking food or using a clothes dryer
- 112.3.b.10.: Matter and Its Properties: The student knows that the natural world includes earth materials that can be observed in systems and processes. The student is expected to:
 - 112.3.b.10.B: investigate and describe how water can move rock and soil particles from one place to another
- 2nd Grade:
 - 112.4.b.5: Recurring Themes and Concepts: The student uses recurring themes and concepts to make connections across disciplines. The student is expected to:
 - 112.4.b.5.G: describe how factors or conditions can cause objects, organisms, and systems to either change or stay the same
 - 112.4.b.10.: Matter and Its Properties: The student knows that the natural world includes earth materials that can be observed in systems and processes. The student is expected to:
 - 112.4.b.10.B: measure, record, and graph weather information, including temperature and precipitation

Social Studies

- Kindergarten:
 - 113.11.c.11: Culture. The student understands the importance of family traditions. The student is expected to:
 - 113.11.c.11.B: compare traditions among families.
 - 113.11.c.12: Science, technology, and society. The student understands ways technology is used in the home and school and how technology affects people's lives. The student is expected to:
 - 113.11.c.12.B: describe how technology helps accomplish specific tasks and meet people's needs;
 - 113.11.c.12.C: describe how his or her life might be different without modern technology.
 - 113.11.c.14: Social studies skills. The student communicates in oral and visual forms. The student is expected to:



- 113.11.c.14.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
- 113.11.c.14.D: create and interpret visuals, including pictures and maps;
- 1st Grade:
 - 113.12.c.9: Economics. The student understands the value of work. The student is expected to:
 - 113.12.c.9.B: describe how various jobs contribute to the production of goods and services.
 - 113.12.c.15: Science, technology, and society. The student identifies individuals who created or invented new technology and understands how technology affects daily life, past and present. The student is expected to:
 - 113.12.c.15.A: describe how technology has affected the ways families live;
 - 113.12.c.17: Social studies skills. The student communicates in oral, visual, and written forms. The student is expected to:
 - 113.12.c.17.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
 - 113.12.c.17.D: create and interpret visual and written material;
- 2nd Grade:
 - 113.13.c.7: Economics. The student understands the roles of producers and consumers in the production of goods and services. The student is expected to:
 - 113.13.c.7.C: trace the development of a product from a natural resource to a finished product.
 - 113.13.c.12: Culture. The student understands ethnic and/or cultural celebrations. The student is expected to:
 - 113.13.c.12.B: compare ethnic and/or cultural celebrations.
 - 113.13.c.13: Science, technology, and society. The student understands how science and technology have affected life, past and present. The student is expected to:
 - 113.13.c.13.B: explain how science and technology have affected the ways in which people meet basic needs.
 - 113.13.c.16: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:



- 113.13.c.16.E: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;

DIG 'EM UP

English Language Arts

- Kindergarten:
 - 110.2.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.2.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including taking turns;
- 1st Grade:
 - 110.3.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.3.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including listening to others, speaking when recognized, and making appropriate contributions;
- 2nd Grade:
 - 110.4.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.4.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including listening to others, speaking when recognized, making appropriate contributions, and building on the ideas of others;

Math

- 1st Grade:
 - 111.3.b.7: Geometry and measurement. The student applies mathematical process standards to select and use units to describe length and time. The student is expected to:
 - 111.3.b.7.A: use measuring tools to measure the length of objects to reinforce the continuous nature of linear measurement;
 - 111.3.b.7.D: describe a length to the nearest whole unit using a number and a unit;
- 2nd Grade:



- 111.4.b.9: Geometry and measurement. The student applies mathematical process standards to select and use units to describe length, area, and time. The student is expected to:
 - 111.4.b.9.D: determine the length of an object to the nearest marked unit using rulers, yardsticks, meter sticks, or measuring tapes;

Science

- Kindergarten:
 - 112.2.b.1: Scientific and Engineering Practices: The student asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:
 - 112.2.b.1.A: ask questions and define problems based on observations or information from text, phenomena, models, or investigations
 - 112.2.b.1.D: use tools, including hand lenses, goggles, trays, cups, bowls, sieves or sifters, notebooks, terrariums, aquariums, samples (rocks, sand, soil, loam, gravel, clay, seeds, and plants), windsock, demonstration thermometer, rain gauge, straws, ribbons, nonstandard measuring items, blocks or cubes, tuning fork, various flashlights, small paper cups, items that roll, noise makers, hot plate, opaque objects, transparent objects, foil pie pans, foil muffin cups, wax paper, Sun-Moon-Earth model, and plant life cycle model to observe, measure, test, and compare
 - 112.2.b.1.E: collect observations and measurements as evidence
 - 112.2.b.1.F: record and organize data using pictures, numbers, words, symbols, and simple graphs
 - 112.2.b.1.G: develop and use models to represent phenomena, objects, and processes or design a prototype for a solution to a problem
 - 112.2.b.2: Recurring Themes and Concepts: The student analyzes and interprets data to derive meaning, identify features and patterns, and discover relationships or correlations to develop evidence-based arguments or evaluate designs. The student is expected to:
 - 112.2.b.2.B: analyze data by identifying significant features and patterns
 - 112.2.b.2.C: use mathematical concepts to compare two objects with common attributes



- 112.2.b.2.D: evaluate a design or object using criteria to determine if it works as intended
 - 112.2.b.3: Recurring Themes and Concepts: The student develops evidence-based explanations and communicates findings, conclusions, and proposed solutions. The student is expected to:
 - 112.2.b.3.A: develop explanations and propose solutions supported by data and models
 - 112.2.b.3.B: communicate explanations and solutions individually and collaboratively in a variety of settings and formats
 - 112.2.b.3.C: listen actively to others' explanations to identify important evidence and engage respectfully in scientific discussion
 - 112.2.b.5: Recurring Themes and Concepts: The student uses recurring themes and concepts to make connections across disciplines. The student is expected to:
 - 112.2.b.5.A: identify and use patterns to describe phenomena or design solutions
 - 112.2.b.5.F: describe the relationship between the structure and function of objects, organisms, and systems
 - 112.2.b.5.G: describe how factors or conditions can cause objects, organisms, and systems to either change or stay the same
 - 112.2.b.12: Organisms and Environments: The student knows that plants and animals depend on the environment to meet their basic needs for survival. The student is expected to:
 - 112.2.b.12.A: observe and identify the dependence of plants on air, sunlight, water, nutrients in the soil, and space to grow;
 - 112.2.b.13: Organisms and Environments: The student knows that organisms resemble their parents and have structures and undergo processes that help them interact and survive within their environments. The student is expected to:
 - 112.2.b.13.A: identify the structures of plants, including roots, stems, leaves, flowers, and fruits
- 1st Grade:
 - 112.3.b.1: Scientific and Engineering Practices: The student asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:



- 112.3.b.1.A: ask questions and define problems based on observations or information from text, phenomena, models, or investigations
- 112.3.b.1.D: use tools, including hand lenses, goggles, heat resistant gloves, trays, cups, bowls, beakers, sieves/sifters, tweezers, primary balance, notebooks, terrariums, aquariums, stream tables, soil samples (loam, sand, gravel, rocks, and clay), seeds, plants, windsock, pinwheel, student thermometer, demonstration thermometer, rain gauge, straws, ribbons, non-standard measuring items, flashlights, sandpaper, wax paper, items that are magnetic, nonmagnetic items, a variety of magnets, hot plate, aluminum foil, Sun-Moon-Earth model, and plant and animal life cycle models to observe, measure, test, and compare
- 112.3.b.1.E: collect observations and measurements as evidence
- 112.3.b.1.F: record and organize data using pictures, numbers, words, symbols, and simple graphs
- 112.3.b.1.G: develop and use models to represent phenomena, objects, and processes or design a prototype for a solution to a problem
- 112.3.b.2: Recurring Themes and Concepts: The student analyzes and interprets data to derive meaning, identify features and patterns, and discover relationships or correlations to develop evidence-based arguments or evaluate designs. The student is expected to:
 - 112.3.b.2.B: analyze data by identifying significant features and patterns
 - 112.3.b.2.C: use mathematical concepts to compare two objects with common attributes
 - 112.3.b.2.D: evaluate a design or object using criteria to determine if it works as intended
- 112.3.b.3: Recurring Themes and Concepts: The student develops evidence-based explanations and communicates findings, conclusions, and proposed solutions. The student is expected to:
 - 112.3.b.3.A: develop explanations and propose solutions supported by data and models
 - 112.3.b.3.B: communicate explanations and solutions individually and collaboratively in a variety of settings and formats



- 112.3.b.3.C: listen actively to others' explanations to identify important evidence and engage respectfully in scientific discussion
- 112.3.b.5: Recurring Themes and Concepts: The student uses recurring themes and concepts to make connections across disciplines. The student is expected to:
 - 112.3.b.5.A: identify and use patterns to describe phenomena or design solutions
 - 112.3.b.5.F: describe the relationship between the structure and function of objects, organisms, and systems
 - 112.3.b.5.G: describe how factors or conditions can cause objects, organisms, and systems to either change or stay the same
- 2nd Grade:
 - 112.4.b.1: Scientific and Engineering Practices: The student asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:
 - 112.4.b.1.A: ask questions and define problems based on observations or information from text, phenomena, models, or investigations
 - 112.4.b.1.D: use tools, including hand lenses, goggles, heat resistant gloves, trays, cups, bowls, beakers, sieves/sifters, tweezers, primary balance, notebooks, terrariums, aquariums, stream tables, soil samples (loam, sand, gravel, rocks, and clay), seeds, plants, windsock, pinwheel, student thermometer, demonstration thermometer, rain gauge, straws, ribbons, non-standard measuring items, flashlights, sandpaper, wax paper, items that are magnetic, nonmagnetic items, a variety of magnets, hot plate, aluminum foil, Sun-Moon-Earth model, and plant and animal life cycle models to observe, measure, test, and compare
 - 112.4.b.1.E: collect observations and measurements as evidence
 - 112.4.b.1.F: record and organize data using pictures, numbers, words, symbols, and simple graphs
 - 112.4.b.1.G: develop and use models to represent phenomena, objects, and processes or design a prototype for a solution to a problem
 - 112.4.b.2: Recurring Themes and Concepts: The student analyzes and interprets data to derive meaning, identify features and patterns, and discover relationships or correlations



to develop evidence-based arguments or evaluate designs. The student is expected to:

- 112.4.b.2.B: analyze data by identifying significant features and patterns
- 112.4.b.2.C: use mathematical concepts to compare two objects with common attributes
- 112.4.b.2.D: evaluate a design or object using criteria to determine if it works as intended
- 112.4.b.3: Recurring Themes and Concepts: The student develops evidence-based explanations and communicates findings, conclusions, and proposed solutions. The student is expected to:
 - 112.4.b.3.A: develop explanations and propose solutions supported by data and models
 - 112.4.b.3.B: communicate explanations and solutions individually and collaboratively in a variety of settings and formats
 - 112.4.b.3.C: listen actively to others' explanations to identify important evidence and engage respectfully in scientific discussion
- 112.4.b.5: Recurring Themes and Concepts: The student uses recurring themes and concepts to make connections across disciplines. The student is expected to:
 - 112.4.b.5.A: identify and use patterns to describe phenomena or design solutions
 - 112.4.b.5.F: describe the relationship between the structure and function of objects, organisms, and systems
 - 112.4.b.5.G: describe how factors or conditions can cause objects, organisms, and systems to either change or stay the same
- 112.4.b.13: Organisms and Environments: The student knows that organisms undergo similar life processes and have structures that function to help them survive within their environments. The student is expected to:
 - 112.4.b.13.A: identify the roots, stems, leaves, flowers, fruits, and seeds of plants and compare how those structures help different plants meet their basic needs for survival

Social Studies

- Kindergarten:
 - 113.11.c.14: Social studies skills. The student communicates in oral and visual forms. The student is expected to:



TEXAS FARM BUREAU®

- 113.11.c.14.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
- 113.11.c.14.D: create and interpret visuals, including pictures and maps;
- 1st Grade:
 - 113.12.c.9: Economics. The student understands the value of work. The student is expected to:
 - 113.12.c.9.B: describe how various jobs contribute to the production of goods and services.
 - 113.12.c.17: Social studies skills. The student communicates in oral, visual, and written forms. The student is expected to:
 - 113.12.c.17.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
 - 113.12.c.17.D: create and interpret visual and written material;
- 2nd Grade:
 - 113.13.c.7: Economics. The student understands the roles of producers and consumers in the production of goods and services. The student is expected to:
 - 113.13.c.7.C: trace the development of a product from a natural resource to a finished product.
 - 113.13.c.16: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
 - 113.13.c.16.E: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;

EAT 'EM UP

English Language Arts

- Kindergarten:
 - 110.2.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.2.b.1.C: share information and ideas by speaking audibly and clearly using the conventions of language
 - 110.2.b.5: Comprehension skills: listening, speaking, reading, writing, and thinking using multiple texts. The student uses metacognitive skills to both develop and deepen comprehension of increasingly complex texts. The student is expected to:



TEXAS FARM BUREAU®

- 110.2.b.5.G: evaluate details to determine what is most important with adult assistance
- 110.2.b.5.H: synthesize information to create new understanding with adult assistance
- 1st Grade:
 - 110.3.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.3.b.1.C: share information and ideas about the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language
 - 110.3.b.2: Developing and sustaining foundational language skills: listening, speaking, reading, writing, and thinking--beginning reading and writing. The student develops word structure knowledge through phonological awareness, print concepts, phonics, and morphology to communicate, decode, and spell. The student is expected to:
 - 110.3.b.2.F: develop handwriting by printing words, sentences, and answers legibly leaving appropriate spaces between words
 - 110.3.b.5: Developing and sustaining foundational language skills: listening, speaking, reading, writing, and thinking--self-sustained reading. The student reads grade-appropriate texts independently. The student is expected to self-select text and interact independently with text for increasing periods of time.
 - 110.3.b.6: Comprehension skills: listening, speaking, reading, writing, and thinking using multiple texts. The student uses metacognitive skills to both develop and deepen comprehension of increasingly complex texts. The student is expected to:
 - 110.3.b.6.G: evaluate details to determine what is most important with adult assistance
 - 110.3.b.6.H: synthesize information to create new understanding with adult assistance
- 2nd Grade:
 - 110.4.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.4.b.1.C: share information and ideas that focus on the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language
 - 110.4.b.5: Developing and sustaining foundational language skills: listening, speaking, reading, writing, and thinking--self-sustained reading. The student reads grade-appropriate texts



independently. The student is expected to self-select text and read independently for a sustained period of time.

- 110.4.b.6: Comprehension skills: listening, speaking, reading, writing, and thinking using multiple texts. The student uses metacognitive skills to both develop and deepen comprehension of increasingly complex texts. The student is expected to:
 - 110.4.b.6.G: evaluate details read to determine key ideas
 - 110.4.b.6.H: synthesize information to create new understanding

Science

- Kindergarten:
 - 112.2.b.13: Organisms and environments. The student knows that organisms resemble their parents and have structures and undergo processes that help them interact and survive within their environments. The student is expected to:
 - 112.2.b.13.A: identify the structures of plants, including roots, stems, leaves, flowers, and fruits
 - 112.2.b.13.B: identify the different structures that animals have that allow them to interact with their environment such as seeing, hearing, moving, and grasping objects

Social Studies

- Kindergarten:
 - 113.11.c.13: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including technology. The student is expected to:
 - 113.11.c.13.D: sequence and categorize information
 - 113.11.c.14: Social studies skills. The student communicates in oral and visual forms. The student is expected to:
 - 113.11.c.14.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
- 1st Grade:
 - 113.12.c.16: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including technology. The student is expected to:
 - 113.112.c.16.D: sequence and categorize information
 - 113.12.c.17: Social studies skills. The student communicates in oral, visual, and written forms. The student is expected to:
 - 113.12.c.17.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
- 2nd Grade:



- 113.13.c.15: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including technology. The student is expected to:
 - 112.13.c.15.D: interpret oral, visual, and print material by sequencing, categorizing, identifying the main idea, predicting, comparing, and contrasting.
- 113.13.c.16: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
 - 113.13.c.16.E: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;

EATING PLANTS

English Language Arts

- Kindergarten:
 - 110.2.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.2.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including taking turns;
 - 110.2.b.6: Response skills: listening, speaking, reading, writing, and thinking using multiple texts. The student responds to an increasingly challenging variety of sources that are read, heard, or viewed. The student is expected to:
 - 110.2.b.6.F: respond using newly acquired vocabulary as appropriate.
- 1st Grade:
 - 110.3.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.3.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including listening to others, speaking when recognized, and making appropriate contributions;
 - 110.3.b.7: Response skills: listening, speaking, reading, writing, and thinking using multiple texts. The student responds to an increasingly challenging variety of sources that are read, heard, or viewed. The student is expected to:
 - 110.3.b.7.F: respond using newly acquired vocabulary as appropriate.
- 2nd Grade:



- 110.4.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.4.b.1D: work collaboratively with others by following agreed-upon rules for discussion, including listening to others, speaking when recognized, making appropriate contributions, and building on the ideas of others;
- 110.4.b.7: Response skills: listening, speaking, reading, writing, and thinking using multiple texts. The student responds to an increasingly challenging variety of sources that are read, heard, or viewed. The student is expected to:
 - 110.4.b.7.F: respond using newly acquired vocabulary as appropriate.

Science

- Kindergarten:
 - 112.2.b.1: Scientific and Engineering Practices: The student asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:
 - 112.2.b.1.E: collect observations and measurements as evidence
 - 112.2.b.1.F: record and organize data using pictures, numbers, words, symbols, and simple graphs
 - 112.2.b.5: Recurring Themes and Concepts: The student uses recurring themes and concepts to make connections across disciplines. The student is expected to:
 - 112.2.b.5.F: describe the relationship between the structure and function of objects, organisms, and systems
 - 112.2.b.13: Organisms and Environments: The student knows that organisms resemble their parents and have structures and undergo processes that help them interact and survive within their environments. The student is expected to:
 - 112.2.b.13.A: identify the structures of plants, including roots, stems, leaves, flowers, and fruits
- 1st Grade:
 - 112.3.b.1: Scientific and Engineering Practices: The student asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:



- 112.3.b.1.E: collect observations and measurements as evidence
- 112.3.b.1.F: record and organize data using pictures, numbers, words, symbols, and simple graphs
- 112.3.b.5: Recurring Themes and Concepts: The student uses recurring themes and concepts to make connections across disciplines. The student is expected to:
 - 112.3.b.5.F: describe the relationship between the structure and function of objects, organisms, and systems
- 2nd Grade:
 - 112.4.b.1: Scientific and Engineering Practices: The student asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:
 - 112.4.b.1.E: collect observations and measurements as evidence
 - 112.4.b.1.F: record and organize data using pictures, numbers, words, symbols, and simple graphs
 - 112.4.b.5: Recurring Themes and Concepts: The student uses recurring themes and concepts to make connections across disciplines. The student is expected to:
 - 112.4.b.5.F: describe the relationship between the structure and function of objects, organisms, and systems
 - 112.4.b.13: Organisms and Environments: The student knows that organisms resemble their parents and have structures and undergo processes that help them interact and survive within their environments. The student is expected to:
 - 112.4.b.13.A: identify the roots, stems, leaves, flowers, fruits, and seeds of plants and compare how those structures help different plants meet their basic needs for survival

Social Studies

- Kindergarten:
 - 113.11.c.14: Social studies skills. The student communicates in oral and visual forms. The student is expected to:
 - 113.11.c.14.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
 - 113.11.c.14.D: create and interpret visuals, including pictures and maps;
- 1st Grade:



- 113.12.c.17: Social studies skills. The student communicates in oral, visual, and written forms. The student is expected to:
 - 113.12.c.17.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
 - 113.12.c.17.D: create and interpret visual and written material;
- 2nd Grade:
 - 113.13.c.16: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
 - 113.13.c.16.E: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
 - 113.13.c.16.F: create written and visual material such as stories, maps, and graphic organizers to express ideas;

EGGOLOGY

English Language Arts

- Kindergarten:
 - 110.2.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.2.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including taking turns;
 - 110.2.b.6: Response skills: listening, speaking, reading, writing, and thinking using multiple texts. The student responds to an increasingly challenging variety of sources that are read, heard, or viewed. The student is expected to:
 - 110.2.b.6.F: respond using newly acquired vocabulary as appropriate.
- 1st Grade:
 - 110.3.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.3.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including listening to others, speaking when recognized, and making appropriate contributions;
 - 110.3.b.7: Response skills: listening, speaking, reading, writing, and thinking using multiple texts. The student responds to an



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increasingly challenging variety of sources that are read, heard, or viewed. The student is expected to:

- 110.3.b.7.F: respond using newly acquired vocabulary as appropriate.
- 2nd Grade:
 - 110.4.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.4.b.1D: work collaboratively with others by following agreed-upon rules for discussion, including listening to others, speaking when recognized, making appropriate contributions, and building on the ideas of others;
 - 110.4.b.7: Response skills: listening, speaking, reading, writing, and thinking using multiple texts. The student responds to an increasingly challenging variety of sources that are read, heard, or viewed. The student is expected to:
 - 110.4.b.7.F: respond using newly acquired vocabulary as appropriate.

Science

- Kindergarten:
 - 112.2.b.1: Scientific and Engineering Practices: The student asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:
 - 112.2.b.1.E: collect observations and measurements as evidence
 - 112.2.b.1.F: record and organize data using pictures, numbers, words, symbols, and simple graphs
 - 112.2.b.5: Recurring Themes and Concepts: The student uses recurring themes and concepts to make connections across disciplines. The student is expected to:
 - 112.2.b.5.F: describe the relationship between the structure and function of objects, organisms, and systems
 - 112.2.b.12: Organisms and Environments: The student knows that plants and animals depend on the environment to meet their basic needs for survival. The student is expected to:
 - 112.2.b.12.B: observe and identify the dependence of animals on air, water, food, space, and shelter
- 1st Grade:
 - 112.3.b.1: Scientific and Engineering Practices: The student asks questions, identifies problems, and plans and safely



conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:

- 112.3.b.1.E: collect observations and measurements as evidence
- 112.3.b.1.F: record and organize data using pictures, numbers, words, symbols, and simple graphs
- 112.3.b.5: Recurring Themes and Concepts: The student uses recurring themes and concepts to make connections across disciplines. The student is expected to:
 - 112.3.b.5.F: describe the relationship between the structure and function of objects, organisms, and systems
- 112.3.b.12: Organisms and Environments: The student knows that the environment is composed of relationships between living organisms and nonliving components. The student is expected to:
 - 112.3.b.12.C: identify and illustrate how living organisms depend on each other through food chains
- 112.3.b.13: Organisms and Environments: The student knows that organisms resemble their parents and have structures and undergo processes that help them interact and survive within their environments. The student is expected to:
 - 112.3.b.13.A: identify the external structures of different animals and compare how those structures help different animals live, move, and meet basic needs for survival
 - 112.3.b.13.B: record observations of and describe basic life cycles of animals, including a bird, a mammal, and a fish
 - 112.3.b.13.C: compare ways that young animals resemble their parents
- 2nd Grade:
 - 112.4.b.1: Scientific and Engineering Practices: The student asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:
 - 112.4.b.1.E: collect observations and measurements as evidence
 - 112.4.b.1.F: record and organize data using pictures, numbers, words, symbols, and simple graphs
 - 112.4.b.5: Recurring Themes and Concepts: The student uses recurring themes and concepts to make connections across disciplines. The student is expected to:



- 112.4.b.5.F: describe the relationship between the structure and function of objects, organisms, and systems
- 112.4.b.13: Organisms and Environments: The student knows that organisms resemble their parents and have structures and undergo processes that help them interact and survive within their environments. The student is expected to:
 - 112.4.b.13.B: record and compare how the structures and behaviors of animals help them find and take in food, water, and air
 - 112.4.b.13.D: investigate and describe some of the unique life cycles of animals where young animals do not resemble their parents, including butterflies and frogs

Social Studies

- Kindergarten:
 - 113.11.c.14: Social studies skills. The student communicates in oral and visual forms. The student is expected to:
 - 113.11.c.14.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
 - 113.11.c.14.D: create and interpret visuals, including pictures and maps;
- 1st Grade:
 - 113.12.c.17: Social studies skills. The student communicates in oral, visual, and written forms. The student is expected to:
 - 113.12.c.17.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
 - 113.12.c.17.D: create and interpret visual and written material;
- 2nd Grade:
 - 113.13.c.16: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
 - 113.13.c.16.E: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
 - 113.13.c.16.F: create written and visual material such as stories, maps, and graphic organizers to express ideas;

EGGS: FROM HEN TO HOME

English Language Arts

- Kindergarten:



- 110.2.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.2.b.1.C: share information and ideas by speaking audibly and clearly using the conventions of language
- 110.2.b.6: Response skills: listening, speaking, reading, writing, and thinking using multiple texts. The student responds to an increasingly challenging variety of sources that are read, heard, or viewed. The student is expected to:
 - 110.2.b.6.E: interact with sources in meaningful ways such as illustrating or writing
- 1st Grade:
 - 110.3.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.3.b.1.C: share information and ideas about the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language
 - 110.3.b.4: Developing and sustaining foundational language skills: listening, speaking, reading, writing, and thinking--fluency. The student reads grade-level text with fluency and comprehension. The student is expected to use appropriate fluency (rate, accuracy, and prosody) when reading grade-level text.
 - 110.3.b.7: Response skills: listening, speaking, reading, writing, and thinking using multiple texts. The student responds to an increasingly challenging variety of sources that are read, heard, or viewed. The student is expected to:
 - 110.3.b.7.E: interact with sources in meaningful ways such as illustrating or writing
- 2nd Grade:
 - 110.4.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.4.b.1.C: share information and ideas that focus on the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language
 - 110.4.b.4: Developing and sustaining foundational language skills: listening, speaking, reading, writing, and thinking--fluency. The student reads grade-level text with fluency and comprehension. The student is expected to use appropriate



fluency (rate, accuracy, and prosody) when reading grade-level text.

- 110.4.b.7: Response skills: listening, speaking, reading, writing, and thinking using multiple texts. The student responds to an increasingly challenging variety of sources that are read, heard, or viewed. The student is expected to:
 - 110.4.b.7.E: interact with sources in meaningful ways such as illustrating or writing

Science

- 2nd Grade:
 - 112.4.b.12: Organisms and environments. The student knows that living organisms have basic needs that must be met through interactions within their environment. The student is expected to:
 - 112.4.b.12.A: describe how the physical characteristics of environments, including the amount of rainfall, support plants and animals within an ecosystem
- Social Studies
 - Kindergarten:
 - 113.11.c.13: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including technology. The student is expected to:
 - 113.11.c.13.D: sequence and categorize information.
 - 1st Grade:
 - 113.12.c.16: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including technology. The student is expected to:
 - 113.12.c.16.D: sequence and categorize information.
 - 2nd Grade:
 - 113.13.c.15: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including technology. The student is expected to:
 - 113.13.c.15.D: interpret oral, visual, and print material by sequencing, categorizing, identifying the main idea, predicting, comparing, and contrasting

EXPLORING AQUAPONICS

English Language Arts

- Kindergarten:
 - 110.2.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral



language. The student develops oral language through listening, speaking, and discussion. The student is expected to:

- 110.2.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including taking turns;
- 110.2.b.6: Response skills: listening, speaking, reading, writing, and thinking using multiple texts. The student responds to an increasingly challenging variety of sources that are read, heard, or viewed. The student is expected to:
 - 110.2.b.6.F: respond using newly acquired vocabulary as appropriate.
- 110.2.b.12: Inquiry and research: listening, speaking, reading, writing, and thinking using multiple texts. The student engages in both short-term and sustained recursive inquiry processes for a variety of purposes. The student is expected to:
 - 110.2.b.12.B: develop and follow a research plan with adult assistance;
- 1st Grade:
 - 110.3.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.3.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including listening to others, speaking when recognized, and making appropriate contributions;
 - 110.3.b.7: Response skills: listening, speaking, reading, writing, and thinking using multiple texts. The student responds to an increasingly challenging variety of sources that are read, heard, or viewed. The student is expected to:
 - 110.3.b.7.F: respond using newly acquired vocabulary as appropriate.
 - 110.3.b.13: Inquiry and research: listening, speaking, reading, writing, and thinking using multiple texts. The student engages in both short-term and sustained recursive inquiry processes for a variety of purposes. The student is expected to:
 - 110.3.b.13.B: develop and follow a research plan with adult assistance;
- 2nd Grade:
 - 110.4.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:



- 110.4.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including listening to others, speaking when recognized, making appropriate contributions, and building on the ideas of others;
- 110.4.b.7: Response skills: listening, speaking, reading, writing, and thinking using multiple texts. The student responds to an increasingly challenging variety of sources that are read, heard, or viewed. The student is expected to:
 - 110.4.b.7.F: respond using newly acquired vocabulary as appropriate.
- 110.4.b.13: Inquiry and research: listening, speaking, reading, writing, and thinking using multiple texts. The student engages in both short-term and sustained recursive inquiry processes for a variety of purposes. The student is expected to:
 - 110.4.b.13.B: develop and follow a research plan with adult assistance;

Math

- 1st Grade:
 - 111.3.b.7: Geometry and measurement. The student applies mathematical process standards to select and use units to describe length and time. The student is expected to:
 - 111.3.b.7.A: use measuring tools to measure the length of objects to reinforce the continuous nature of linear measurement;
 - 111.3.b.7.D: describe a length to the nearest whole unit using a number and a unit;
- 2nd Grade:
 - 111.4.b.9: Geometry and measurement. The student applies mathematical process standards to select and use units to describe length, area, and time. The student is expected to:
 - 111.4.b.9.D: determine the length of an object to the nearest marked unit using rulers, yardsticks, meter sticks, or measuring tapes;

Science

- Kindergarten:
 - 112.2.b.1: Scientific and engineering practices. The student asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:
 - 112.2.b.1.A: ask questions and define problems based on observations or information from text, phenomena, models, or investigations



- 112.2.b.1.B: use scientific practices to plan and conduct simple descriptive investigations and use engineering practices to design solutions to problems
- 112.2.b.1.C: identify, describe, and demonstrate safe practices during classroom and field investigations as outlined in Texas Education Agency-approved safety standards;
- 112.2.b.1.E: collect observations and measurements as evidence
- 112.2.b.1.F: record and organize data using pictures, numbers, words, symbols, and simple graphs
- 112.2.b.1.G: develop and use models to represent phenomena, objects, and processes or design a prototype for a solution to a problem
- 112.2.b.2: Scientific and engineering practices. The student analyzes and interprets data to derive meaning, identify features and patterns, and discover relationships or correlations to develop evidence-based arguments or evaluate designs. The student is expected to:
 - 112.2.b.2.B: analyze data by identifying significant features and patterns
 - 112.2.b.2.C: use mathematical concepts to compare two objects with common attributes
 - 112.2.b.2.D: evaluate a design or object using criteria to determine if it works as intended
- 112.2.b.3: Scientific and engineering practices. The student develops evidence-based explanations and communicates findings, conclusions, and proposed solutions. The student is expected to:
 - 112.2.b.3.B: communicate explanations and solutions individually and collaboratively in a variety of settings and formats
 - 112.2.b.3.C: listen actively to others' explanations to identify important evidence and engage respectfully in scientific discussion
- 112.2.b.4: Scientific and engineering practices. The student knows the contributions of scientists and recognizes the importance of scientific research and innovation on society. The student is expected to:
 - 112.2.b.4.A: explain how science or an innovation can help others
 - 112.2.b.4.B: identify scientists and engineers such as Isaac Newton, Mae Jemison, and Ynes Mexia and explore what different scientists and engineers do



- 112.2.b.5: Recurring Themes and Concepts. The student uses recurring themes and concepts to make connections across disciplines. The student is expected to:
 - 112.2.b.5.A: identify and use patterns to describe phenomena or design solutions
 - 112.2.b.5.C: describe the properties of objects in terms of relative size (scale) and relative quantity
 - 112.2.b.5.D: examine the parts of a whole to define or model a system
 - 112.2.b.5.G: describe how factors or conditions can cause objects, organisms, and systems to either change or stay the same
- 112.2.b.12: Organisms and Environments: The student knows that plants and animals depend on the environment to meet their basic needs for survival. The student is expected to:
 - 112.2.b.12.A: observe and identify the dependence of plants on air, sunlight, water, nutrients in the soil, and space to grow
 - 112.2.b.12.B: observe and identify the dependence of animals on air, water, food, space, and shelter.
- 1st Grade:
 - 112.3.b.1: Scientific and engineering practices. The student asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:
 - 112.13b.1.A: ask questions and define problems based on observations or information from text, phenomena, models, or investigations
 - 112.3.b.1.B: use scientific practices to plan and conduct simple descriptive investigations and use engineering practices to design solutions to problems
 - 112.3.b.1.C: identify, describe, and demonstrate safe practices and the use of safety equipment during classroom and field investigations as outlined in Texas Education Agency-approved safety standards
 - 112.3.b.1.E: collect observations and measurements as evidence
 - 112.3.b.1.F: record and organize data using pictures, numbers, words, symbols, and simple graphs
 - 112.3.b.1.G: develop and use models to represent phenomena, objects, and processes or design a prototype for a solution to a problem



- 112.3.b.2: Scientific and engineering practices. The student analyzes and interprets data to derive meaning, identify features and patterns, and discover relationships or correlations to develop evidence-based arguments or evaluate designs. The student is expected to:
 - 112.3.b.2.A: identify basic advantages and limitations of models such as their size, properties, and materials
 - 112.3.b.2.B: analyze data by identifying significant features and patterns
 - 112.4.b.2.C: use mathematical concepts to compare two objects with common attributes
- 112.3.b.3: Scientific and engineering practices. The student develops evidence-based explanations and communicates findings, conclusions, and proposed solutions. The student is expected to:
 - 112.3.b.3.B: communicate explanations and solutions individually and collaboratively in a variety of settings and formats
 - 112.3.b.3.C: listen actively to others' explanations to identify important evidence and engage respectfully in scientific discussion
- 112.3.b.4: Scientific and engineering practices. The student knows the contributions of scientists and recognizes the importance of scientific research and innovation on society. The student is expected to:
 - 112.3.b.4.A: explain how science or an innovation can help others
 - 112.3.b.4.B: identify scientists and engineers such as Katherine Johnson, Sally Ride, and Ernest Just and explore what different scientists and engineers do
- 112.3.b.5: Recurring Themes and Concepts. The student uses recurring themes and concepts to make connections across disciplines. The student is expected to:
 - 112.3.b.5.A: identify and use patterns to describe phenomena or design solutions
 - 112.3.b.5.C: describe the properties of objects in terms of relative size (scale) and relative quantity
 - 112.3.b.5.D: examine the parts of a whole to define or model a system
 - 112.3.b.5.G: describe how factors or conditions can cause objects, organisms, and systems to either change or stay the same



- 112.3.b.8: Force, Motion, and Energy: The student knows that energy is everywhere and can be observed in everyday life. The student is expected to:
 - 112.3.b.8.A: investigate and describe applications of heat in everyday life such as cooking food or using a clothes dryer
- 112.3.b.11: Organisms and Environments: The student knows that earth materials and products made from these materials are important to everyday life. The student is expected to:
 - 112.3.b.11.B: explain why water conservation is important
- 112.3.b.12: Organisms and Environments: The student knows that the environment is composed of relationships between living organisms and nonliving components. The student is expected to:
 - 112.3.b.12.A: classify living and nonliving things based upon whether they have basic needs and produce young
 - 112.3.b.12.B: describe and record examples of interactions and dependence between living and nonliving components in terrariums or aquariums
 - 112.3.b.12.C: identify and illustrate how living organisms depend on each other through food chains
- 2nd Grade:
 - 112.4.b.1: Scientific and engineering practices. The student asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:
 - 112.4.b.1.A: ask questions and define problems based on observations or information from text, phenomena, models, or investigations
 - 112.4.b.1.B: use scientific practices to plan and conduct simple descriptive investigations and use engineering practices to design solutions to problems
 - 112.4.b.1.C: identify, describe, and demonstrate safe practices during classroom and field investigations as outlined in Texas Education Agency-approved safety standards
 - 112.4.b.1.E: collect observations and measurements as evidence
 - 112.4.b.1.F: record and organize data using pictures, numbers, words, symbols, and simple graphs



- 112.4.b.1.G: develop and use models to represent phenomena, objects, and processes or design a prototype for a solution to a problem
- 112.4.b.2: Scientific and engineering practices. The student analyzes and interprets data to derive meaning, identify features and patterns, and discover relationships or correlations to develop evidence-based arguments or evaluate designs. The student is expected to:
 - 112.4.b.2.A: identify basic advantages and limitations of models such as their size, properties, and materials
 - 112.4.b.2.B: analyze data by identifying significant features and patterns
 - 112.4.b.2.C: use mathematical concepts to compare two objects with common attributes
- 112.4.b.3: Scientific and engineering practices. The student develops evidence-based explanations and communicates findings, conclusions, and proposed solutions. The student is expected to:
 - 112.4.b.3.B: communicate explanations and solutions individually and collaboratively in a variety of settings and formats
 - 112.4.b.3.C: listen actively to others' explanations to identify important evidence and engage respectfully in scientific discussion
- 112.4.b.4: Scientific and engineering practices. The student knows the contributions of scientists and recognizes the importance of scientific research and innovation on society. The student is expected to:
 - 112.4.b.4.A: explain how science or an innovation can help others
- 112.4.b.5: Recurring Themes and Concepts. The student uses recurring themes and concepts to make connections across disciplines. The student is expected to:
 - 112.4.b.5.A: identify and use patterns to describe phenomena or design solutions
 - 112.4.b.5.C: measure and describe the properties of objects in terms of size and quantity
 - 112.4.b.5.D: examine the parts of a whole to define or model a system
 - 112.4.b.5.G: describe how factors or conditions can cause objects, organisms, and systems to either change or stay the same



- 112.4.b.12: Organisms and Environments: The student describes patterns, cycles, systems, and relationships within environments. The student is expected to:
 - 112.4.b.12.C: explain and demonstrate how some plants depend on other living things, wind, or water for pollination and to move their seeds around
- 112.4.b.13: Organisms and Environments: The student knows that organisms resemble their parents and have structures and undergo processes that help them interact and survive within their environments. The student is expected to:
 - 112.4.b.13.A: identify the roots, stems, leaves, flowers, fruits, and seeds of plants and compare how those structures help different plants meet their basic needs for survival

Social Studies

- Kindergarten:
 - 113.11.c.5: Economics. The student understands the difference between human needs and wants and how they are met. The student is expected to:
 - 113.11.c.5.A: identify basic human needs of food, clothing, and shelter;
 - 113.11.c.14: Social studies skills. The student communicates in oral and visual forms. The student is expected to:
 - 113.11.c.14.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
 - 113.11.c.14.D: create and interpret visuals, including pictures and maps;
- 1st Grade:
 - 113.12.c.17: Social studies skills. The student communicates in oral, visual, and written forms. The student is expected to:
 - 113.12.c.17.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
 - 113.12.c.17.D: create and interpret visual and written material;
- 2nd Grade:
 - 113.13.c.13: Science, technology, and society. The student understands how science and technology have affected life, past and present. The student is expected to:
 - 113.13.c.13.B: explain how science and technology have affected the ways in which people meet basic needs.



- 113.13.c.16: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
 - 113.13.c.16.E: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
 - 113.13.c.16.F: create written and visual material such as stories, maps, and graphic organizers to express ideas;

Technology Applications

- Kindergarten:
 - 126.1.c.3: Creativity and innovation--innovative design process. The student takes an active role in learning by using a design process to solve authentic problems for a local or global audience, using a variety of technologies. The student is expected to:
 - 126.1.c.3.A: practice personal skills, including following directions, needed to successfully implement design processes;
- 1st Grade:
 - 126.2.c.3: Creativity and innovation--innovative design process. The student takes an active role in learning by using a design process to solve authentic problems for a local or global audience, using a variety of technologies. The student is expected to:
 - 126.2.c.3.A: practice personal skills and behaviors, including following directions and mental agility, needed to implement a design process successfully;
- 2nd Grade:
 - 126.3.c.3: Creativity and innovation--innovative design process. The student takes an active role in learning by using a design process to solve authentic problems for a local or global audience, using a variety of technologies. The student is expected to:
 - 126.3.c.3.A: demonstrate personal skills and behaviors, including effective communication, following directions, and mental agility, needed to implement a design process successfully;

EXPLORING TEXTURE IN THE GARDEN

English Language Arts

- Kindergarten:



- 110.2.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.2.b.1.C: share information and ideas by speaking audibly and clearly using the conventions of language
 - 110.2.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including taking turns
- 110.2.b.3: Developing and sustaining foundational language skills: listening, speaking, reading, writing, and thinking--vocabulary. The student uses newly acquired vocabulary expressively. The student is expected to:
 - 110.2.b.3.C: identify and use words that name actions; directions; positions; sequences; categories such as colors, shapes, and textures; and locations.
- 110.2.b.5: Comprehension skills: listening, speaking, reading, writing, and thinking using multiple texts. The student uses metacognitive skills to both develop and deepen comprehension of increasingly complex texts. The student is expected to:
 - 110.2.b.5.G: evaluate details to determine what is most important with adult assistance
 - 110.2.b.5.H: synthesize information to create new understanding with adult assistance
- 110.2.b.6: Response skills: listening, speaking, reading, writing, and thinking using multiple texts. The student responds to an increasingly challenging variety of sources that are read, heard, or viewed. The student is expected to:
 - 110.2.b.6.E: interact with sources in meaningful ways such as illustrating or writing
- 1st Grade:
 - 110.3.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.3.b.1.C: share information and ideas about the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language
 - 110.3.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including listening to others, speaking when recognized, and making appropriate contributions
 - 110.3.b.3: Developing and sustaining foundational language skills: listening, speaking, reading, writing, and thinking--vocabulary. The student uses newly acquired vocabulary expressively. The student is expected to:



- 110.3.b.3.D: identify and use words that name actions, directions, positions, sequences, categories, and locations
- 110.3.b.6: Comprehension skills: listening, speaking, reading, writing, and thinking using multiple texts. The student uses metacognitive skills to both develop and deepen comprehension of increasingly complex texts. The student is expected to:
 - 110.3.b.6.G: evaluate details to determine what is most important with adult assistance
 - 110.3.b.6.H: synthesize information to create new understanding with adult assistance
- 110.3.b.7: Response skills: listening, speaking, reading, writing, and thinking using multiple texts. The student responds to an increasingly challenging variety of sources that are read, heard, or viewed. The student is expected to:
 - 110.3.b.7.E: interact with sources in meaningful ways such as illustrating or writing
- 2nd Grade:
 - 110.4.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.4.b.1.C: share information and ideas that focus on the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language
 - 110.4.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including listening to others, speaking when recognized, making appropriate contributions, and building on the ideas of others
 - 110.4.b.6: Comprehension skills: listening, speaking, reading, writing, and thinking using multiple texts. The student uses metacognitive skills to both develop and deepen comprehension of increasingly complex texts. The student is expected to:
 - 110.4.b.6.G: evaluate details read to determine key ideas
 - 110.4.b.6.H: synthesize information to create new understanding
 - 110.4.b.7: Response skills: listening, speaking, reading, writing, and thinking using multiple texts. The student responds to an increasingly challenging variety of sources that are read, heard, or viewed. The student is expected to:
 - 110.4.b.7.E: interact with sources in meaningful ways such as illustrating or writing

Science

- Kindergarten:
 - 112.2.b.1: Scientific and engineering practices. The student asks questions, identifies problems, and plans and safely



conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:

- 112.2.b.1.A: ask questions and define problems based on observations or information from text, phenomena, models, or investigations
- 112.2.b.6: Matter and its properties. The student knows that objects have physical properties that determine how they are described and classified. The student is expected to identify and record observable physical properties of objects, including shape, color, texture, and material, and generate ways to classify objects.
- 112.2.b.10: Earth and space. The student knows that the natural world includes earth materials and systems that can be observed. The student is expected to:
 - 112.2.b.10.A: describe and classify rocks by the observable properties of size, shape, color, and texture
- 112.2.b.11: Earth and space. The student knows that earth materials are important to everyday life. The student is expected to observe and generate examples of practical uses for rocks, soil, and water.
- 112.2.b.12: Organisms and environments. The student knows that plants and animals depend on the environment to meet their basic needs for survival. The student is expected to:
 - 112.2.b.12.A: observe and identify the dependence of plants on air, sunlight, water, nutrients in the soil, and space to grow
- 1st Grade:
 - 112.3.b.1: Scientific and engineering practices. The student asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:
 - 112.3.b.1.A: ask questions and define problems based on observations or information from text, phenomena, models, or investigations
 - 112.3.b.6: Matter and its properties. The student knows that objects have physical properties that determine how they are described and classified. The student is expected to:
 - 112.3.b.6.A: classify objects by observable physical properties, including, shape, color, and texture, and attributes such as larger and smaller and heavier and lighter



- 112.3.b.10: Earth and space. The student knows that the natural world includes earth materials that can be observed in systems and processes. The student is expected to:
 - 112.3.b.10.A: investigate and document the properties of particle size, shape, texture, and color and the components of different types of soils such as topsoil, clay, and sand
- 112.3.b.11: Earth and space. The student knows that earth materials and products made from these materials are important to everyday life. The student is expected to:
 - 112.3.b.11.A: identify and describe how plants, animals, and humans use rocks, soil, and water
- 112.3.b.12: identify and describe how plants, animals, and humans use rocks, soil, and water
 - 112.3.b.12.A: classify living and nonliving things based upon whether they have basic needs and produce young
- 2nd Grade:
 - 112.4.b.1: Scientific and engineering practices. The student asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:
 - 112.4.b.1.A: ask questions and define problems based on observations or information from text, phenomena, models, or investigations

Social Studies

- Kindergarten:
 - 113.11.c.13: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including technology. The student is expected to:
 - 113.11.c.13.D: sequence and categorize information.
 - 113.11.c.14: Social studies skills. The student communicates in oral and visual forms. The student is expected to:
 - 113.11.c.14.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
 - 113.11.c.14.D: create and interpret visuals, including pictures and maps;
- 1st Grade:
 - 113.12.c.16: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including technology. The student is expected to:



- 113.12.c.16.D: sequence and categorize information.
- 113.12.c.17: Social studies skills. The student communicates in oral, visual, and written forms. The student is expected to:
 - 113.12.c.17.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
 - 113.12.c.17.D: create and interpret visual and written material;
- 2nd Grade:
 - 113.13.c.15: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including technology. The student is expected to:
 - 113.13.c.15.D: interpret oral, visual, and print material by sequencing, categorizing, identifying the main idea, predicting, comparing, and contrasting.
 - 113.13.c.16: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
 - 113.13.c.16.E: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
 - 113.13.c.16.F: create written and visual material such as stories, maps, and graphic organizers to express ideas;

FABULOUS FLOWERS

English Language Arts

- Kindergarten:
 - 110.2.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.2.b.1.C: share information and ideas by speaking audibly and clearly using the conventions of language
- 1st Grade:
 - 110.3.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.3.b.1.C: share information and ideas about the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language
- 2nd Grade:
 - 110.4.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral



language. The student develops oral language through listening, speaking, and discussion. The student is expected to:

- 110.4.b.1.C: share information and ideas that focus on the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language

Science

- Kindergarten:
 - 112.2.b.13: Organisms and environments. The student knows that organisms resemble their parents and have structures and undergo processes that help them interact and survive within their environments. The student is expected to:
 - 112.2.b.13.A: identify the structures of plants, including roots, stems, leaves, flowers, and fruits
 - 112.2.b.13.B: identify the different structures that animals have that allow them to interact with their environment such as seeing, hearing, moving, and grasping objects
 - 112.2.b.13.C: identify and record the changes from seed, seedling, plant, flower, and fruit in a simple plant life cycle

FARM ANIMAL LIFE CYCLES

English Language Arts

- Kindergarten:
 - 110.2.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.2.b.1.C: share information and ideas by speaking audibly and clearly using the conventions of language
 - 110.2.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including taking turns
- 1st Grade:
 - 110.3.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.3.b.1.C: share information and ideas about the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language
 - 110.3.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including listening to others, speaking when recognized, and making appropriate contributions



- 110.3.b.4: Developing and sustaining foundational language skills: listening, speaking, reading, writing, and thinking-- fluency. The student reads grade-level text with fluency and comprehension. The student is expected to use appropriate fluency (rate, accuracy, and prosody) when reading grade-level text.
- 2nd Grade:
 - 110.4.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.4.b.1.C: share information and ideas that focus on the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language
 - 110.4.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including listening to others, speaking when recognized, making appropriate contributions, and building on the ideas of others
 - 110.4.b.4: Developing and sustaining foundational language skills: listening, speaking, reading, writing, and thinking-- fluency. The student reads grade-level text with fluency and comprehension. The student is expected to use appropriate fluency (rate, accuracy, and prosody) when reading grade-level text.

Science

- Kindergarten:
 - 112.2.b.1: Scientific and engineering practices. The student asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:
 - 112.2.b.1.F: record and organize data using pictures, numbers, words, symbols, and simple graphs
 - 112.2.b.5: Recurring Themes and Concepts. The student uses recurring themes and concepts to make connections across disciplines. The student is expected to:
 - 112.2.b.5.A: identify and use patterns to describe phenomena or design solutions
 - 112.2.b.12: Organisms and Environments: The student knows that plants and animals depend on the environment to meet their basic needs for survival. The student is expected to:



- 112.2.b.12.B: observe and identify the dependence of animals on air, water, food, space, and shelter.
 - 112.2.b.13: Organisms and Environments: The student knows that organisms resemble their parents and have structures and undergo processes that help them interact and survive within their environments. The student is expected to:
 - 112.2.b.13.B: identify the different structures that animals have that allow them to interact with their environment such as seeing, hearing, moving, and grasping objects
- 1st Grade:
 - 112.3.b.1: Scientific and engineering practices. The student asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:
 - 112.3.b.1.F: record and organize data using pictures, numbers, words, symbols, and simple graphs
 - 112.3.b.5: Recurring Themes and Concepts. The student uses recurring themes and concepts to make connections across disciplines. The student is expected to:
 - 112.3.b.5.A: identify and use patterns to describe phenomena or design solutions
 - 112.3.b.12: Organisms and Environments: The student knows that the environment is composed of relationships between living organisms and nonliving components. The student is expected to:
 - 112.3.b.12.A: classify living and nonliving things based upon whether they have basic needs and produce young
 - 112.3.b.12.C: identify and illustrate how living organisms depend on each other through food chains
 - 112.3.b.13: Organisms and Environments: The student knows that organisms resemble their parents and have structures and undergo processes that help them interact and survive within their environments. The student is expected to:
 - 112.3.b.13.A: identify the external structures of different animals and compare how those structures help different animals live, move, and meet basic needs for survival
 - 112.3.b.13.B: record observations of and describe basic life cycles of animals, including a bird, a mammal, and a fish



TEXAS FARM BUREAU®

- 2nd Grade:
 - 112.4.b.1: Scientific and engineering practices. The student asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:
 - 112.4.b.1.F: record and organize data using pictures, numbers, words, symbols, and simple graphs
 - 112.4.b.5: Recurring Themes and Concepts. The student uses recurring themes and concepts to make connections across disciplines. The student is expected to:
 - 112.4.b.5.A: identify and use patterns to describe phenomena or design solutions
 - 112.4.b.12: Organisms and Environments: The student describes patterns, cycles, systems, and relationships within environments. The student is expected to:
 - 112.4.b.12.B: create and describe food chains identifying producers and consumers to demonstrate how animals depend on other living things
 - 112.4.b.13: Organisms and Environments: The student knows that organisms resemble their parents and have structures and undergo processes that help them interact and survive within their environments. The student is expected to:
 - 112.4.b.13.B: record and compare how the structures and behaviors of animals help them find and take in food, water, and air

Social Studies

- Kindergarten:
 - 113.11.c.5: Economics. The student understands the difference between human needs and wants and how they are met. The student is expected to:
 - 113.11.b.5.A: identify basic human needs of food, clothing, and shelter
 - 113.11.c.14: Social studies skills. The student communicates in oral and visual forms. The student is expected to:
 - 113.11.c.14.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
 - 113.11.c.14.D: create and interpret visuals, including pictures and maps;
- 1st Grade:



- 113.12.c.9: Economics. The student understands the value of work. The student is expected to:
 - 113.12.c.9.B: describe how various jobs contribute to the production of goods and services.
- 113.12.c.17: Social studies skills. The student communicates in oral, visual, and written forms. The student is expected to:
 - 113.12.c.17.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
 - 113.12.c.17.D: create and interpret visual and written material;
- 2nd Grade:
 - 113.13.c.7: Economics. The student understands the roles of producers and consumers in the production of goods and services. The student is expected to:
 - 113.13.c.7.C: trace the development of a product from a natural resource to a finished product.
 - 113.13.c.16: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
 - 113.13.c.16.E: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;

FARM ANIMAL MATCH

English Language Arts

- Kindergarten:
 - 110.2.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.2.b.1.C: share information and ideas by speaking audibly and clearly using the conventions of language
 - 110.2.b.3: Developing and sustaining foundational language skills: listening, speaking, reading, writing, and thinking--vocabulary. The student uses newly acquired vocabulary expressively. The student is expected to:
 - 110.2.b.3.C: identify and use words that name actions; directions; positions; sequences; categories such as colors, shapes, and textures; and locations.
- 1st Grade:
 - 110.3.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral



language. The student develops oral language through listening, speaking, and discussion. The student is expected to:

- 110.3.b.1.C: share information and ideas about the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language
- 110.3.b.3: Developing and sustaining foundational language skills: listening, speaking, reading, writing, and thinking--vocabulary. The student uses newly acquired vocabulary expressively. The student is expected to:
 - 110.3.b.3.D: identify and use words that name actions, directions, positions, sequences, categories, and locations
- 2nd Grade:
 - 110.4.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.4.b.1.C: share information and ideas that focus on the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language

Science

- Kindergarten:
 - 112.2.b.12: Organisms and environments. The student knows that plants and animals depend on the environment to meet their basic needs for survival. The student is expected to:
 - 112.2.b.12.A: observe and identify the dependence of plants on air, sunlight, water, nutrients in the soil, and space to grow
 - 112.2.b.12.B: observe and identify the dependence of animals on air, water, food, space, and shelter
- 1st Grade:
 - 112.3.b.13: Organisms and environments. The student knows that organisms resemble their parents and have structures and undergo processes that help them interact and survive within their environments. The student is expected to:
 - 112.3.b.13.C: compare ways that young animals resemble their parents
- 2nd Grade:
 - 112.4.b.12: Organisms and environments. The student knows that living organisms have basic needs that must be met through interactions within their environment. The student is expected to:
 - 112.4.b.12.A: describe how the physical characteristics of environments, including the amount of rainfall, support plants and animals within an ecosystem



Social Studies

- Kindergarten:
 - 113.11.c.3: Geography. The student understands the concept of location. The student is expected to:
 - 113.11.c.3.A: use spatial terms, including over, under, near, far, left, and right, to describe relative location
 - 113.11.c.5: Economics. The student understands the difference between human needs and wants and how they are met. The student is expected to:
 - 113.11.c.5.A: identify basic human needs of food, clothing, and shelter;
 - 113.11.c.13: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including technology. The student is expected to:
 - 113.11.c.13.D: sequence and categorize information
- 2nd Grade:
 - 113.13.c.15: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including technology. The student is expected to:
 - 113.13.c.15.D: interpret oral, visual, and print material by sequencing, categorizing, identifying the main idea, predicting, comparing, and contrasting.

FARMING IN A GLOVE

English Language Arts

- Kindergarten:
 - 110.2.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.2.b.1.C: share information and ideas by speaking audibly and clearly using the conventions of language
 - 110.2.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including taking turns
 - 110.2.b.3: Developing and sustaining foundational language skills: listening, speaking, reading, writing, and thinking--vocabulary. The student uses newly acquired vocabulary expressively. The student is expected to:
 - 110.2.b.3.C: identify and use words that name actions; directions; positions; sequences; categories such as colors, shapes, and textures; and locations
- 1st Grade:



- 110.3.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.3.b.1.C: share information and ideas about the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language
 - 110.3.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including listening to others, speaking when recognized, and making appropriate contributions
- 110.3.b.2: Developing and sustaining foundational language skills: listening, speaking, reading, writing, and thinking--beginning reading and writing. The student develops word structure knowledge through phonological awareness, print concepts, phonics, and morphology to communicate, decode, and spell. The student is expected to:
 - 110.3.b.2.F: develop handwriting by printing words, sentences, and answers legibly leaving appropriate spaces between words
- 110.3.b.3: Developing and sustaining foundational language skills: listening, speaking, reading, writing, and thinking--vocabulary. The student uses newly acquired vocabulary expressively. The student is expected to:
 - 110.3.b.3.D: identify and use words that name actions, directions, positions, sequences, categories, and locations
- 2nd Grade:
 - 110.4.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.4.b.1.C: share information and ideas that focus on the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language
 - 110.4.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including listening to others, speaking when recognized, making appropriate contributions, and building on the ideas of others

Math

- Kindergarten:
 - 111.2.b.7: Geometry and measurement. The student applies mathematical process standards to directly compare measurable attributes. The student is expected to:



- 111.2.b.7.B: compare two objects with a common measurable attribute to see which object has more of/less of the attribute and describe the difference
- 111.2.b.8: Data analysis. The student applies mathematical process standards to collect and organize data to make it useful for interpreting information. The student is expected to:
 - 111.2.b.8.A: collect, sort, and organize data into two or three categories
- 1st Grade:
 - 111.3.b.7: Geometry and measurement. The student applies mathematical process standards to select and use units to describe length and time. The student is expected to:
 - 111.3.b.7.A: use measuring tools to measure the length of objects to reinforce the continuous nature of linear measurement
 - 111.3.b.8: Data analysis. The student applies mathematical process standards to organize data to make it useful for interpreting information and solving problems. The student is expected to:
 - 111.3.b.8.A: collect, sort, and organize data in up to three categories using models/representations such as tally marks or T-charts
- 2nd Grade:
 - 111.4.b.9: Geometry and measurement. The student applies mathematical process standards to select and use units to describe length, area, and time. The student is expected to:
 - 111.4.b.9.D: determine the length of an object to the nearest marked unit using rulers, yardsticks, meter sticks, or measuring tapes

Science

- Kindergarten:
 - 112.2.b.1: Scientific investigation and reasoning. The student develops abilities to ask questions and seek answers in classroom and outdoor investigations. The student is expected to:
 - 112.2.b.1.A: ask questions about organisms, objects, and events observed in the natural world
 - 112.2.b.1.B: plan and conduct simple descriptive investigations
 - 112.2.b.1.E: collect observations and measurements as evidence
 - 112.2.b.1.F: record and organize data and observations using pictures, numbers, and words
 - 112.2.b.3: Scientific investigation and reasoning. The student develops abilities to ask questions and seek answers in



classroom and outdoor investigations. The student is expected to:

- 112.2.b.3.B: communicate explanations and solutions individually and collaboratively in a variety of settings and formats;
- 112.2.b.12: Organisms and environments. The student knows that plants and animals depend on the environment to meet their basic needs for survival. The student is expected to:
 - 112.2.b.12.A: observe and identify the dependence of plants on air, sunlight, water, nutrients in the soil, and space to grow
 - 112.2.b.12.B: observe and identify the dependence of animals on air, water, food, space, and shelter
- 112.2.b.13: Organisms and environments. The student knows that organisms resemble their parents and have structures and undergo processes that help them interact and survive within their environments. The student is expected to:
 - 112.2.b.13.A: identify the structures of plants, including roots, stems, leaves, flowers, and fruits;
 - 112.2.b.13.B: identify the different structures that animals have that allow them to interact with their environment such as seeing, hearing, moving, and grasping objects;
 - 112.2.b.13.C: identify and record the changes from seed, seedling, plant, flower, and fruit in a simple plant life cycle
- 1st Grade:
 - 112.3.b.1: Scientific investigation and reasoning. The student develops abilities to ask questions and seek answers in classroom and outdoor investigations. The student is expected to:
 - 112.3.b.1.A: ask questions and define problems based on observations or information from text, phenomena, models, or investigations;
 - 112.3.b.1.B: use scientific practices to plan and conduct simple descriptive investigations and use engineering practices to design solutions to problems;
 - 112.3.b.1.E: collect observations and measurements as evidence
 - 112.3.b.1.F: record and organize data and observations using pictures, numbers, and words
 - 112.3.b.3: Scientific investigation and reasoning. The student develops abilities to ask questions and seek answers in classroom and outdoor investigations. The student is expected to:



- 112.3.b.3.B: communicate explanations and solutions individually and collaboratively in a variety of settings and formats;
- 112.3.b.12: Organisms and environments. The student knows that the environment is composed of relationships between living organisms and nonliving components. The student is expected to:
 - 112.3.b.12.B: describe and record examples of interactions and dependence between living and nonliving components in terrariums or aquariums
- 2nd Grade:
 - 112.4.b.1: Scientific investigation and reasoning. The student develops abilities to ask questions and seek answers in classroom and outdoor investigations. The student is expected to:
 - 112.4.b.1.A: ask questions and define problems based on observations or information from text, phenomena, models, or investigations;
 - 112.4.b.1.B: use scientific practices to plan and conduct simple descriptive investigations and use engineering practices to design solutions to problems;
 - 112.4.b.1.E: collect observations and measurements as evidence;
 - 112.4.b.3: Scientific investigation and reasoning. The student develops abilities to ask questions and seek answers in classroom and outdoor investigations. The student is expected to:
 - 112.4.b.3.B: communicate explanations and solutions individually and collaboratively in a variety of settings and formats;
 - 112.4.b.12: Organisms and environments. The student knows that living organisms have basic needs that must be met through interactions within their environment. The student is expected to:
 - 112.4.b.12.A: describe how the physical characteristics of environments, including the amount of rainfall, support plants and animals within an ecosystem
 - 112.4.b.12.B: create and describe food chains identifying producers and consumers to demonstrate how animals depend on other living things

Social Studies

- Kindergarten:
 - 113.11.c.13: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a



variety of valid sources, including technology. The student is expected to:

- 113.11.c.13.D: sequence and categorize information.
- 113.11.c.14: Social studies skills. The student communicates in oral and visual forms. The student is expected to:
 - 113.11.c.14.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
- 1st Grade:
 - 113.12.c.16: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including technology. The student is expected to:
 - 113.12.c.16.D: sequence and categorize information.
 - 113.12.c.17: Social studies skills. The student communicates in oral, visual, and written forms. The student is expected to:
 - 113.12.c.17.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
- 2nd Grade:
 - 113.13.c.15: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including technology. The student is expected to:
 - 113.13.c.15.D: interpret oral, visual, and print material by sequencing, categorizing, identifying the main idea, predicting, comparing, and contrasting;
 - 113.13.c.16: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
 - 113.13.c.16.E: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;

FOUR SEASONS ON A FARM

English Language Arts

- Kindergarten:
 - 110.2.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.2.b.1.C: share information and ideas by speaking audibly and clearly using the conventions of language
 - 110.2.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including taking turns



- 110.2.b.6: Response skills: listening, speaking, reading, writing, and thinking using multiple texts. The student responds to an increasingly challenging variety of sources that are read, heard, or viewed. The student is expected to:
 - 110.2.b.6.F: respond using newly acquired vocabulary as appropriate.
- 110.2.b.8: Multiple genres: listening, speaking, reading, writing, and thinking using multiple texts--genres. The student recognizes and analyzes genre-specific characteristics, structures, and purposes within and across increasingly complex traditional, contemporary, classical, and diverse texts. The student is expected to:
 - 110.2.b.8.B: discuss rhyme and rhythm in nursery rhymes and a variety of poems;
- 1st Grade:
 - 110.3.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.3.b.1.C: share information and ideas about the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language
 - 110.3.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including listening to others, speaking when recognized, and making appropriate contributions
 - 110.3.b.12: Composition: listening, speaking, reading, writing, and thinking using multiple texts--genres. The student uses genre characteristics and craft to compose multiple texts that are meaningful. The student is expected to:
 - 110.3.b.12.A: dictate or compose literary texts, including personal narratives and poetry;
 - 110.3.b.7: Response skills: listening, speaking, reading, writing, and thinking using multiple texts. The student responds to an increasingly challenging variety of sources that are read, heard, or viewed. The student is expected to:
 - 110.3.b.7.F: respond using newly acquired vocabulary as appropriate.
- 2nd Grade:
 - 110.4.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:



- 110.4.b.1.C: share information and ideas that focus on the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language
- 110.4.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including listening to others, speaking when recognized, making appropriate contributions, and building on the ideas of others
- 110.4.b.12: Composition: listening, speaking, reading, writing, and thinking using multiple texts--genres. The student uses genre characteristics and craft to compose multiple texts that are meaningful. The student is expected to:
 - 110.4.b.12.A: compose literary texts, including personal narratives and poetry;
- 110.4.b.7: Response skills: listening, speaking, reading, writing, and thinking using multiple texts. The student responds to an increasingly challenging variety of sources that are read, heard, or viewed. The student is expected to:
 - 110.4.b.7.F: respond using newly acquired vocabulary as appropriate.

Math

- Kindergarten:
 - 111.2.b.8: Data analysis. The student applies mathematical process standards to collect and organize data to make it useful for interpreting information. The student is expected to:
 - 111.2.b.8.A: collect, sort, and organize data into two or three categories;
 - 111.2.b.8.C: draw conclusions from real-object and picture graphs;
- 1st Grade:
 - 111.3.b.8: Data analysis. The student applies mathematical process standards to organize data to make it useful for interpreting information and solving problems. The student is expected to:
 - 111.3.b.8.B: use data to create picture and bar-type graphs;
 - 111.3.b.8.C: draw conclusions and generate and answer questions using information from picture and bar-type graphs.
- 2nd Grade:
 - 111.4.b.10: Data analysis. The student applies mathematical process standards to organize data to make it useful for



interpreting information and solving problems. The student is expected to:

- 111.4.b.10.B: organize a collection of data with up to four categories using pictographs and bar graphs with intervals of one or more;
- 111.4.b.10.D: draw conclusions and make predictions from information in a graph.

Science

○ Kindergarten:

- 112.2.b.1: Scientific and engineering practices. The student asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:
 - 112.2.b.1.A: ask questions and define problems based on observations or information from text, phenomena, models, or investigations
 - 112.2.b.1.E: collect observations and measurements as evidence
 - 112.2.b.1.F: record and organize data using pictures, numbers, words, symbols, and simple graphs
- 112.2.b.5: Recurring Themes and Concepts. The student uses recurring themes and concepts to make connections across disciplines. The student is expected to:
 - 112.2.b.5.G: describe how factors or conditions can cause objects, organisms, and systems to either change or stay the same
- 112.2.b.10: Earth and space. The student knows that the natural world includes earth materials and systems that can be observed. The student is expected to:
 - 112.2.b.10.B: observe and describe weather changes from day to day and over seasons

○ 1st Grade:

- 112.3.b.1: Scientific and engineering practices. The student asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:
 - 112.3.b.1.A: ask questions and define problems based on observations or information from text, phenomena, models, or investigations
 - 112.3.b.1.E: collect observations and measurements as evidence



- 112.3.b.1.F: record and organize data using pictures, numbers, words, symbols, and simple graphs
- 112.3.b.5: Recurring Themes and Concepts. The student uses recurring themes and concepts to make connections across disciplines. The student is expected to:
 - 112.3.b.5.G: describe how factors or conditions can cause objects, organisms, and systems to either change or stay the same
- 112.3.b.10: Earth and space. The student knows that the natural world includes earth materials that can be observed in systems and processes. The student is expected to:
 - 112.3.b.10.D: describe and record observable characteristics of weather, including hot or cold, clear or cloudy, calm or windy, and rainy or icy, and explain the impact of weather on daily choices
- 2nd Grade:
 - 112.4.b.1: Scientific and engineering practices. The student asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:
 - 112.4.b.1.A: ask questions and define problems based on observations or information from text, phenomena, models, or investigations
 - 112.4.b.1.E: collect observations and measurements as evidence
 - 112.4.b.1.F: record and organize data using pictures, numbers, words, symbols, and simple graphs
 - 112.4.b.5: Recurring Themes and Concepts. The student uses recurring themes and concepts to make connections across disciplines. The student is expected to:
 - 112.4.b.5.G: describe how factors or conditions can cause objects, organisms, and systems to either change or stay the same
 - 112.4.b.10: Earth and space. The student knows that the natural world includes earth materials that can be observed in systems and processes. The student is expected to:
 - 112.4.b.10.B: measure, record, and graph weather information, including temperature and precipitation

Social Studies

- Kindergarten:
 - 113.11.c.14: Social studies skills. The student communicates in oral and visual forms. The student is expected to:
 - 113.11.c.14.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;



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- 113.11.c.14.D: create and interpret visuals, including pictures and maps;
- 1st Grade:
 - 113.12.c.9: Economics. The student understands the value of work. The student is expected to:
 - 113.12.c.9.B: describe how various jobs contribute to the production of goods and services.
 - 113.12.c.17: Social studies skills. The student communicates in oral, visual, and written forms. The student is expected to:
 - 113.12.c.17.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
 - 113.12.c.17.D: create and interpret visual and written material;
- 2nd Grade:
 - 113.13.c.16: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
 - 113.13.c.16.E: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;

FRESHEST FRUITS

English Language Arts

- Kindergarten:
 - 110.2.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.2.b.1.C: share information and ideas by speaking audibly and clearly using the conventions of language
 - 110.2.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including taking turns
- 1st Grade:
 - 110.3.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.3.b.1.C: share information and ideas about the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language
 - 110.3.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including listening to



others, speaking when recognized, and making appropriate contributions

- 2nd Grade:
 - 110.4.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.4.b.1.C: share information and ideas that focus on the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language
 - 110.4.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including listening to others, speaking when recognized, making appropriate contributions, and building on the ideas of others

Math

- Kindergarten:
 - 111.2.b.3: Number and operations. The student applies mathematical process standards to develop and use strategies for whole number addition and subtraction computations in order to solve problems. The student is expected to:
 - 111.2.b.3.B: solve word problems using objects and drawings to find sums up to 10 and differences within 10;
 - 111.2.b.8: Data analysis. The student applies mathematical process standards to collect and organize data to make it useful for interpreting information. The student is expected to:
 - 111.2.b.8.B: use data to create real-object and picture graphs;
 - 111.2.b.8.C: draw conclusions from real-object and picture graph
- 1st Grade:
 - 111.3.b.3: Number and operations. The student applies mathematical process standards to develop and use strategies for whole number addition and subtraction computations in order to solve problems. The student is expected to:
 - 111.3.b.3.D: apply basic fact strategies to add and subtract within 20, including making 10 and decomposing a number leading to a 10;
 - 111.3.b.8: Data analysis. The student applies mathematical process standards to organize data to make it useful for interpreting information and solving problems. The student is expected to:
 - 111.3.b.8.B: use data to create picture and bar-type graphs;



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- 111.3.b.8.C: draw conclusions and generate and answer questions using information from picture and bar-type graphs.
- 2nd Grade:
 - 111.4.b.4: Number and operations. The student applies mathematical process standards to develop and use strategies and methods for whole number computations in order to solve addition and subtraction problems with efficiency and accuracy. The student is expected to:
 - 111.4.b.4.A: recall basic facts to add and subtract within 20 with automaticity;
 - 111.4.b.10: Data analysis. The student applies mathematical process standards to organize data to make it useful for interpreting information and solving problems. The student is expected to:
 - 111.4.b.10.B: organize a collection of data with up to four categories using pictographs and bar graphs with intervals of one or more;
 - 111.4.b.10.D: draw conclusions and make predictions from information in a graph.

Science

- Kindergarten:
 - 112.2.b.1: Scientific and engineering practices. The student asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:
 - 112.2.b.1.A: ask questions and define problems based on observations or information from text, phenomena, models, or investigations
 - 112.2.b.1.E: collect observations and measurements as evidence
 - 112.2.b.1.F: record and organize data using pictures, numbers, words, symbols, and simple graphs
 - 112.2.b.3: Scientific and engineering practices. The student develops evidence-based explanations and communicates findings, conclusions, and proposed solutions. The student is expected to:
 - 112.2.b.3.A: develop explanations and propose solutions supported by data and models
 - 112.2.b.3.B: communicate explanations and solutions individually and collaboratively in a variety of settings and formats
 - 112.2.b.4: Scientific and engineering practices. The student knows the contributions of scientists and recognizes the



importance of scientific research and innovation on society. The student is expected to:

- 112.2.b.4.A: explain how science or an innovation can help others
- 112.2.b.5: Recurring Themes and Concepts. The student uses recurring themes and concepts to make connections across disciplines. The student is expected to:
 - 112.2.b.5.A: identify and use patterns to describe phenomena or design solutions
 - 112.2.b.5.F: describe the relationship between the structure and function of objects, organisms, and systems
 - 112.2.b.5.G: describe how factors or conditions can cause objects, organisms, and systems to either change or stay the same;
- 112.2.b.6: Matter and Its Properties: The student knows that objects have physical properties that determine how they are described and classified. The student is expected to identify and record observable physical properties of objects, including shape, color, texture, and material, and generate ways to classify objects
- 112.2.b.12: Organisms and Environments: The student knows that plants and animals depend on the environment to meet their basic needs for survival. The student is expected to:
 - 112.2.b.12.A: observe and identify the dependence of plants on air, sunlight, water, nutrients in the soil, and space to grow
- 112.2.b.13: Organisms and Environments: The student knows that organisms resemble their parents and have structures and undergo processes that help them interact and survive within their environments. The student is expected to:
 - 112.2.b.13.A: identify the structures of plants, including roots, stems, leaves, flowers, and fruits
 - 112.2.b.13.C: identify and record the changes from seed, seedling, plant, flower, and fruit in a simple plant life cycle
 - 112.2.b.13.D: identify ways that young plants resemble the parent plant
- 1st Grade:
 - 112.3.b.1: Scientific and engineering practices. The student asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:



- 112.3.b.1.A: ask questions and define problems based on observations or information from text, phenomena, models, or investigations
- 112.3.b.1.E: collect observations and measurements as evidence
- 112.3.b.1.F: record and organize data using pictures, numbers, words, symbols, and simple graphs
- 112.3.b.3: Scientific and engineering practices. The student develops evidence-based explanations and communicates findings, conclusions, and proposed solutions. The student is expected to:
 - 112.3.b.3.A: develop explanations and propose solutions supported by data and models
 - 112.3.b.3.B: communicate explanations and solutions individually and collaboratively in a variety of settings and formats
- 112.3.b.4: Scientific and engineering practices. The student knows the contributions of scientists and recognizes the importance of scientific research and innovation on society. The student is expected to:
 - 112.3.b.4.A: explain how science or an innovation can help others
- 112.3.b.5: Recurring Themes and Concepts. The student uses recurring themes and concepts to make connections across disciplines. The student is expected to:
 - 112.3.b.5.A: identify and use patterns to describe phenomena or design solutions
 - 112.3.b.5.F: describe the relationship between the structure and function of objects, organisms, and systems
 - 112.3.b.5.G: describe how factors or conditions can cause objects, organisms, and systems to either change or stay the same;
- 112.3.b.6: Matter and Its Properties: The student knows that objects have physical properties that determine how they are described and classified. The student is expected to:
 - 12.3.b.6.A: classify objects by observable physical properties, including, shape, color, and texture, and attributes such as larger and smaller and heavier and lighter
- 112.3.b.11: Organisms and Environments: The student knows that earth materials and products made from these materials are important to everyday life. The student is expected to:



- 112.3.b.11.A: identify and describe how plants, animals, and humans use rocks, soil, and water
 - 112.3.b.12: Organisms and Environments: The student knows that the environment is composed of relationships between living organisms and nonliving components. The student is expected to:
 - 112.3.b.12.A: classify living and nonliving things based upon whether they have basic needs and produce young
 - 112.3.b.12.C: identify and illustrate how living organisms depend on each other through food chains
- 2nd Grade:
 - 112.4.b.1: Scientific and engineering practices. The student asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:
 - 112.4.b.1.A: ask questions and define problems based on observations or information from text, phenomena, models, or investigations
 - 112.4.b.1.E: collect observations and measurements as evidence
 - 112.4.b.1.F: record and organize data using pictures, numbers, words, symbols, and simple graphs
 - 112.4.b.3: Scientific and engineering practices. The student develops evidence-based explanations and communicates findings, conclusions, and proposed solutions. The student is expected to:
 - 112.4.b.3.A: develop explanations and propose solutions supported by data and models
 - 112.4.b.3.B: communicate explanations and solutions individually and collaboratively in a variety of settings and formats
 - 112.4.b.4: Scientific and engineering practices. The student knows the contributions of scientists and recognizes the importance of scientific research and innovation on society. The student is expected to:
 - 112.4.b.4.A: explain how science or an innovation can help others
 - 112.4.b.5: Recurring Themes and Concepts. The student uses recurring themes and concepts to make connections across disciplines. The student is expected to:



- 112.4.b.5.A: identify and use patterns to describe phenomena or design solutions
- 112.4.b.5.F: describe the relationship between the structure and function of objects, organisms, and systems
- 112.4.b.13: Organisms and Environments: The student knows that organisms resemble their parents and have structures and undergo processes that help them interact and survive within their environments. The student is expected to:
 - 112.4.b.13.A: identify the roots, stems, leaves, flowers, fruits, and seeds of plants and compare how those structures help different plants meet their basic needs for survival

Social Studies

- Kindergarten:
 - 113.11.c.14: Social studies skills. The student communicates in oral and visual forms. The student is expected to:
 - 113.11.c.14.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
 - 113.11.c.14.D: create and interpret visuals, including pictures and maps;
- 1st Grade:
 - 113.12.c.9: Economics. The student understands the value of work. The student is expected to:
 - 113.12.c.9.B: describe how various jobs contribute to the production of goods and services.
 - 113.12.c.17: Social studies skills. The student communicates in oral, visual, and written forms. The student is expected to:
 - 113.12.c.17.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
 - 113.12.c.17.D: create and interpret visual and written material;
- 2nd Grade:
 - 113.13.c.16: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
 - 113.13.c.16.E: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;



FROM CHICKEN LITTLE TO CHICKEN BIG

English Language Arts

- Kindergarten:
 - 110.2.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.2.b.1.C: share information and ideas by speaking audibly and clearly using the conventions of language
 - 110.2.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including taking turns
 - 110.2.b.3: Developing and sustaining foundational language skills: listening, speaking, reading, writing, and thinking--vocabulary. The student uses newly acquired vocabulary expressively. The student is expected to:
 - 110.2.b.3.B: use illustrations and texts the student is able to read or hear to learn or clarify word meanings
 - 110.2.b.5: Comprehension skills: listening, speaking, reading, writing, and thinking using multiple texts. The student uses metacognitive skills to both develop and deepen comprehension of increasingly complex texts. The student is expected to:
 - 110.2.b.5.G: evaluate details to determine what is most important with adult assistance
 - 110.2.b.5.H: synthesize information to create new understanding with adult assistance
 - 110.2.b.6: Response skills: listening, speaking, reading, writing, and thinking using multiple texts. The student responds to an increasingly challenging variety of sources that are read, heard, or viewed. The student is expected to:
 - 110.2.b.6.E: interact with sources in meaningful ways such as illustrating or writing
 - 110.2.b.6.F: respond using newly acquired vocabulary as appropriate
- 1st Grade:
 - 110.3.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.3.b.1.C: share information and ideas about the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language
 - 110.3.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including listening to others, speaking when recognized, and making appropriate contributions



- 110.3.b.2: Developing and sustaining foundational language skills: listening, speaking, reading, writing, and thinking--beginning reading and writing. The student develops word structure knowledge through phonological awareness, print concepts, phonics, and morphology to communicate, decode, and spell. The student is expected to:
 - 110.3.b.2.F: develop handwriting by printing words, sentences, and answers legibly leaving appropriate spaces between words
- 110.3.b.3: Developing and sustaining foundational language skills: listening, speaking, reading, writing, and thinking--vocabulary. The student uses newly acquired vocabulary expressively. The student is expected to:
 - 110.3.b.3.B: use illustrations and texts the student is able to read or hear to learn or clarify word meanings
- 110.3.b.6: Comprehension skills: listening, speaking, reading, writing, and thinking using multiple texts. The student uses metacognitive skills to both develop and deepen comprehension of increasingly complex texts. The student is expected to:
 - 110.3.b.6.G: evaluate details to determine what is most important with adult assistance
 - 110.3.b.6.H: synthesize information to create new understanding with adult assistance
- 110.3.b.7: Response skills: listening, speaking, reading, writing, and thinking using multiple texts. The student responds to an increasingly challenging variety of sources that are read, heard, or viewed. The student is expected to:
 - 110.3.b.7.E: interact with sources in meaningful ways such as illustrating or writing
 - 110.3.b.7.F: respond using newly acquired vocabulary as appropriate
- 2nd Grade:
 - 110.4.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.4.b.1.C: share information and ideas that focus on the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language
 - 110.4.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including listening to others, speaking when recognized, making appropriate contributions, and building on the ideas of others
 - 110.4.b.3: Developing and sustaining foundational language skills: listening, speaking, reading, writing, and thinking--



vocabulary. The student uses newly acquired vocabulary expressively. The student is expected to:

- 110.4.b.3.B: use context within and beyond a sentence to determine the meaning of unfamiliar words
- 110.4.b.6: Comprehension skills: listening, speaking, reading, writing, and thinking using multiple texts. The student uses metacognitive skills to both develop and deepen comprehension of increasingly complex texts. The student is expected to:
 - 110.4.b.6.G: evaluate details read to determine key ideas
 - 110.4.b.6.H: synthesize information to create new understanding
- 110.4.b.7: Response skills: listening, speaking, reading, writing, and thinking using multiple texts. The student responds to an increasingly challenging variety of sources that are read, heard, or viewed. The student is expected to:
 - 110.4.b.7.E: interact with sources in meaningful ways such as illustrating or writing
 - 110.4.b.7.F: respond using newly acquired vocabulary as appropriate

Science

- Kindergarten:
 - 112.2.b.13: Organisms and environments. The student knows that organisms resemble their parents and have structures and undergo processes that help them interact and survive within their environments. The student is expected to:
 - 112.2.b.13.B: identify the different structures that animals have that allow them to interact with their environment such as seeing, hearing, moving, and grasping objects
- 1st Grade:
 - 112.3.b.13: Organisms and environments. The student knows that organisms resemble their parents and have structures and undergo processes that help them interact and survive within their environments. The student is expected to:
 - 112.3.b.13.B: record observations of and describe basic life cycles of animals, including a bird, a mammal, and a fish

Social Studies

- Kindergarten:
 - 113.11.c.13: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including technology. The student is expected to:
 - 113.11.c.13.D: sequence and categorize information.



- 113.11.c.14: Social studies skills. The student communicates in oral and visual forms. The student is expected to:
 - 113.11.c.14.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
- 1st Grade:
 - 113.12.c.16: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including technology. The student is expected to:
 - 113.12.c.16.D: sequence and categorize information.
 - 113.12.c.17: Social studies skills. The student communicates in oral, visual, and written forms. The student is expected to:
 - 113.12.c.17.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
- 2nd Grade:
 - 113.13.c.15: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including technology. The student is expected to:
 - 113.13.c.15.D: interpret oral, visual, and print material by sequencing, categorizing, identifying the main idea, predicting, comparing, and contrasting;
 - 113.13.c.16: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
 - 113.13.c.16.E: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;

FRUIT AND VEGETABLE BINGO

English Language Arts

- Kindergarten:
 - 110.2.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.2.b.1.C: share information and ideas by speaking audibly and clearly using the conventions of language;
 - 110.2.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including taking turns; and
 - 110.2.b.2: Developing and sustaining foundational language skills: listening, speaking, reading, writing, and thinking--beginning reading and writing. The student develops word



structure knowledge through phonological awareness, print concepts, phonics, and morphology to communicate, decode, and spell. The student is expected to:

- 110.2.b.2.E: develop handwriting by accurately forming all uppercase and lowercase letters using appropriate directionality.
- 110.2.b.6: Response skills: listening, speaking, reading, writing, and thinking using multiple texts. The student responds to an increasingly challenging variety of sources that are read, heard, or viewed. The student is expected to:
 - 110.2.b.6.F: respond using newly acquired vocabulary as appropriate.
- 110.2.b.11: Composition: listening, speaking, reading, writing, and thinking using multiple texts--genres. The student uses genre characteristics and craft to compose multiple texts that are meaningful. The student is expected to:
 - 110.2.b.11.B: dictate or compose informational texts.
- 1st Grade:
 - 110.3.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.3.b.1.C: share information and ideas about the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language;
 - 110.3.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including listening to others, speaking when recognized, and making appropriate contributions; and
 - 110.3.b.2: Developing and sustaining foundational language skills: listening, speaking, reading, writing, and thinking--beginning reading and writing. The student develops word structure knowledge through phonological awareness, print concepts, phonics, and morphology to communicate, decode, and spell. The student is expected to:
 - 110.3.b.2.F: develop handwriting by printing words, sentences, and answers legibly leaving appropriate spaces between words.
 - 110.3.b.7: Response skills: listening, speaking, reading, writing, and thinking using multiple texts. The student responds to an increasingly challenging variety of sources that are read, heard, or viewed. The student is expected to:
 - 110.3.b.7.F: respond using newly acquired vocabulary as appropriate.



- 110.3.b.12: Composition: listening, speaking, reading, writing, and thinking using multiple texts--genres. The student uses genre characteristics and craft to compose multiple texts that are meaningful. The student is expected to:
 - 110.3.b.12.B: dictate or compose informational texts, including procedural texts; and
- 2nd Grade:
 - 110.4.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.4.b.1.C: share information and ideas that focus on the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language;
 - 110.4.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including listening to others, speaking when recognized, making appropriate contributions, and building on the ideas of others; and
 - 110.4.b.7: Response skills: listening, speaking, reading, writing, and thinking using multiple texts. The student responds to an increasingly challenging variety of sources that are read, heard, or viewed. The student is expected to:
 - 110.4.b.7.F: respond using newly acquired vocabulary as appropriate.
 - 110.4.b.12: Composition: listening, speaking, reading, writing, and thinking using multiple texts--genres. The student uses genre characteristics and craft to compose multiple texts that are meaningful. The student is expected to:
 - 110.4.b.12.B: compose informational texts, including procedural texts and reports; and

Social Studies

- Kindergarten:
 - 113.11.c.13: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including technology. The student is expected to:
 - 113.11.c.13.D: sequence and categorize information
 - 113.11.c.14: Social studies skills. The student communicates in oral and visual forms. The student is expected to:
 - 113.11.c.14.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
- 1st Grade:
 - 113.12.c.16: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a



variety of valid sources, including technology. The student is expected to:

- 113.12.c.16.D: sequence and categorize information.
- 113.12.c.17: Social studies skills. The student communicates in oral, visual, and written forms. The student is expected to:
 - 113.12.c.17.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
- 2nd Grade:
 - 113.13.c.15: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including technology. The student is expected to:
 - 113.13.c.15.D: interpret oral, visual, and print material by sequencing, categorizing, identifying the main idea, predicting, comparing, and contrasting.
 - 113.13.c.16: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
 - 113.13.c.16.E: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
 - 113.13.c.16.F: create written and visual material such as stories, maps, and graphic organizers to express ideas;

FRUITS OF OUR LABOR

English Language Arts

- Kindergarten:
 - 110.2.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.2.b.1.C: share information and ideas by speaking audibly and clearly using the conventions of language
 - 110.2.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including taking turns
 - 110.2.b.5: Comprehension skills: listening, speaking, reading, writing, and thinking using multiple texts. The student uses metacognitive skills to both develop and deepen comprehension of increasingly complex texts. The student is expected to:
 - 110.2.b.5.E: make connections to personal experiences, ideas in other texts, and society with adult assistance;
- 1st Grade:



- 110.3.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.3.b.1.C: share information and ideas about the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language
 - 110.3.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including listening to others, speaking when recognized, and making appropriate contributions
- 110.3.b.6: Comprehension skills: listening, speaking, reading, writing, and thinking using multiple texts. The student uses metacognitive skills to both develop and deepen comprehension of increasingly complex texts. The student is expected to:
 - 110.3.b.6.E: make connections to personal experiences, ideas in other texts, and society with adult assistance;
- 2nd Grade:
 - 110.4.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.4.b.1.C: share information and ideas that focus on the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language
 - 110.4.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including listening to others, speaking when recognized, making appropriate contributions, and building on the ideas of others
 - 110.4.b.6: Comprehension skills: listening, speaking, reading, writing, and thinking using multiple texts. The student uses metacognitive skills to both develop and deepen comprehension of increasingly complex texts. The student is expected to:
 - 110.4.b.6.E: make connections to personal experiences, ideas in other texts, and society;

Science

- Kindergarten:



- 112.2.b.1: Scientific and engineering practices. The student asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:
 - 112.2.b.1.A: ask questions and define problems based on observations or information from text, phenomena, models, or investigations
 - 112.2.b.1.D: use tools, including hand lenses, goggles, trays, cups, bowls, sieves or sifters, notebooks, terrariums, aquariums, samples (rocks, sand, soil, loam, gravel, clay, seeds, and plants), windsock, demonstration thermometer, rain gauge, straws, ribbons, nonstandard measuring items, blocks or cubes, tuning fork, various flashlights, small paper cups, items that roll, noise makers, hot plate, opaque objects, transparent objects, foil pie pans, foil muffin cups, wax paper, Sun-Moon-Earth model, and plant life cycle model to observe, measure, test, and compare
- 112.2.b.4: Scientific and engineering practices. The student knows the contributions of scientists and recognizes the importance of scientific research and innovation on society. The student is expected to:
 - 112.2.b.4.B: identify scientists and engineers such as Isaac Newton, Mae Jemison, and Ynes Mexia and explore what different scientists and engineers do
- 112.2.b.5: Recurring Themes and Concepts. The student uses recurring themes and concepts to make connections across disciplines. The student is expected to:
 - 112.2.b.5.G: describe how factors or conditions can cause objects, organisms, and systems to either change or stay the same
- 112.2.b.10: Earth and space. The student knows that the natural world includes earth materials and systems that can be observed. The student is expected to:
 - 112.2.b.10.B: observe and describe weather changes from day to day and over seasons
- 112.2.b.12: Organisms and Environments: The student knows that plants and animals depend on the environment to meet their basic needs for survival. The student is expected to:
 - 112.2.b.12.A: observe and identify the dependence of plants on air, sunlight, water, nutrients in the soil, and space to grow



- 112.2.b.13: Organisms and Environments: The student knows that organisms resemble their parents and have structures and undergo processes that help them interact and survive within their environments. The student is expected to:
 - 112.2.b.13.A: identify the structures of plants, including roots, stems, leaves, flowers, and fruits
 - 112.2.b.13.C: identify and record the changes from seed, seedling, plant, flower, and fruit in a simple plant life cycle
- 1st Grade:
 - 112.3.b.1: Scientific and engineering practices. The student asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:
 - 112.3.b.1.A: ask questions and define problems based on observations or information from text, phenomena, models, or investigations
 - 112.3.b.1.D: use tools, including hand lenses, goggles, heat resistant gloves, trays, cups, bowls, beakers, sieves/sifters, tweezers, primary balance, notebooks, terrariums, aquariums, stream tables, soil samples (loam, sand, gravel, rocks, and clay), seeds, plants, windsock, pinwheel, student thermometer, demonstration thermometer, rain gauge, straws, ribbons, non-standard measuring items, flashlights, sandpaper, wax paper, items that are magnetic, nonmagnetic items, a variety of magnets, hot plate, aluminum foil, Sun-Moon-Earth model, and plant and animal life cycle models to observe, measure, test, and compare
 - 112.3.b.5: Recurring Themes and Concepts. The student uses recurring themes and concepts to make connections across disciplines. The student is expected to:
 - 112.3.b.5.G: describe how factors or conditions can cause objects, organisms, and systems to either change or stay the same
 - 112.3.b.11: Organisms and Environments: The student knows that earth materials and products made from these materials are important to everyday life. The student is expected to:
 - 112.3.b.11.A: identify and describe how plants, animals, and humans use rocks, soil, and water
- 2nd Grade:



- 112.4.b.1: Scientific and engineering practices. The student asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:
 - 112.4.b.1.A: ask questions and define problems based on observations or information from text, phenomena, models, or investigations
 - 112.4.b.1.D: use tools, including hand lenses, goggles, heat resistant gloves, trays, cups, bowls, beakers, notebooks, stream tables, soil, sand, gravel, flowering plants, student thermometer, demonstration thermometer, rain gauge, flashlights, ramps, balls, spinning tops, drums, tuning forks, sandpaper, wax paper, items that are flexible, non-flexible items, magnets, hot plate, aluminum foil, Sun-Moon-Earth model, and frog and butterfly life cycle models to observe, measure, test, and compare
- 112.4.b.5: Recurring Themes and Concepts. The student uses recurring themes and concepts to make connections across disciplines. The student is expected to:
 - 112.4.b.5.G: describe how factors or conditions can cause objects, organisms, and systems to either change or stay the same
- 112.4.b.12: Organisms and Environments: The student describes patterns, cycles, systems, and relationships within environments. The student is expected to:
 - 112.4.b.12.A: describe how the physical characteristics of environments, including the amount of rainfall, support plants and animals within an ecosystem

Social Studies

- Kindergarten:
 - 113.11.c.5: Economics. The student understands the difference between human needs and wants and how they are met. The student is expected to:
 - 113.11.b.5.C: explain how basic human needs and wants can be met
 - 113.11.c.14: Social studies skills. The student communicates in oral and visual forms. The student is expected to:
 - 113.11.c.14.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;



TEXAS FARM BUREAU®

- 113.11.c.14.D: create and interpret visuals, including pictures and maps;
- 1st Grade:
 - 113.12.c.9: Economics. The student understands the value of work. The student is expected to:
 - 113.12.c.9.B: describe how various jobs contribute to the production of goods and services.
 - 113.12.c.17: Social studies skills. The student communicates in oral, visual, and written forms. The student is expected to:
 - 113.12.c.17.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
 - 113.12.c.17.D: create and interpret visual and written material;
- 2nd Grade:
 - 113.13.c.7: Economics. The student understands the roles of producers and consumers in the production of goods and services. The student is expected to:
 - 113.13.c.7.C: trace the development of a product from a natural resource to a finished product
 - 113.13.c.16: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
 - 113.13.c.16.E: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;

GROWING PLANTS IN SCIENCE AND LITERACY, MORE THAN AN EMPTY POT English Language Arts

- Kindergarten:
 - 110.2.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.2.b.1.C: share information and ideas by speaking audibly and clearly using the conventions of language
 - 110.2.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including taking turns
 - 110.2.b.5: Comprehension skills: listening, speaking, reading, writing, and thinking using multiple texts. The student uses metacognitive skills to both develop and deepen comprehension of increasingly complex texts. The student is expected to:
 - 110.2.b.5.G: evaluate details to determine what is most important with adult assistance



- 110.2.b.5.H: synthesize information to create new understanding with adult assistance
- 110.2.b.6: Response skills: listening, speaking, reading, writing, and thinking using multiple texts. The student responds to an increasingly challenging variety of sources that are read, heard, or viewed. The student is expected to:
 - 110.2.b.6.D: retell texts in ways that maintain meaning
 - 110.2.b.6.E: interact with sources in meaningful ways such as illustrating or writing
- 110.2.b.7: Multiple genres: listening, speaking, reading, writing, and thinking using multiple texts--literary elements. The student recognizes and analyzes literary elements within and across increasingly complex traditional, contemporary, classical, and diverse literary texts. The student is expected to:
 - 110.2.b.7.B: identify and describe the main character(s)
 - 110.2.b.7.C: describe the elements of plot development, including the main events, the problem, and the resolution for texts read aloud with adult assistance
 - 110.2.b.7.D: describe the setting.
- 110.2.b.8: Multiple genres: listening, speaking, reading, writing, and thinking using multiple texts--genres. The student recognizes and analyzes genre-specific characteristics, structures, and purposes within and across increasingly complex traditional, contemporary, classical, and diverse texts. The student is expected to:
 - 110.2.b.8.A: demonstrate knowledge of distinguishing characteristics of well-known children's literature such as folktales, fables, fairy tales, and nursery rhymes
- 1st Grade:
 - 110.3.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.3.b.1.C: share information and ideas about the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language
 - 110.3.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including listening to others, speaking when recognized, and making appropriate contributions
 - 110.3.b.2: Developing and sustaining foundational language skills: listening, speaking, reading, writing, and thinking--beginning reading and writing. The student develops word structure knowledge through phonological awareness, print



concepts, phonics, and morphology to communicate, decode, and spell. The student is expected to:

- 110.3.b.2.F: develop handwriting by printing words, sentences, and answers legibly leaving appropriate spaces between words
 - 110.3.b.6: Comprehension skills: listening, speaking, reading, writing, and thinking using multiple texts. The student uses metacognitive skills to both develop and deepen comprehension of increasingly complex texts. The student is expected to:
 - 110.3.b.6.G: evaluate details to determine what is most important with adult assistance
 - 110.3.b.6.H: synthesize information to create new understanding with adult assistance
 - 110.3.b.7: Response skills: listening, speaking, reading, writing, and thinking using multiple texts. The student responds to an increasingly challenging variety of sources that are read, heard, or viewed. The student is expected to:
 - 110.3.b.7.D: retell texts in ways that maintain meaning
 - 110.3.b.7.E: interact with sources in meaningful ways such as illustrating or writing
 - 110.3.b.8: Multiple genres: listening, speaking, reading, writing, and thinking using multiple texts--literary elements. The student recognizes and analyzes literary elements within and across increasingly complex traditional, contemporary, classical, and diverse literary texts. The student is expected to:
 - 110.3.b.8.B: describe the main character(s) and the reason(s) for their actions
 - 110.3.b.8.C: describe plot elements, including the main events, the problem, and the resolution, for texts read aloud and independently
 - 110.3.b.8.D: describe the setting
 - 110.3.b.9: Multiple genres: listening, speaking, reading, writing, and thinking using multiple texts--genres. The student recognizes and analyzes genre-specific characteristics, structures, and purposes within and across increasingly complex traditional, contemporary, classical, and diverse texts. The student is expected to:
 - 110.3.b.9.A: demonstrate knowledge of distinguishing characteristics of well-known children's literature such as folktales, fables, fairy tales, and nursery rhymes
- 2nd Grade:
- 110.4.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral



language. The student develops oral language through listening, speaking, and discussion. The student is expected to:

- 110.4.b.1.C: share information and ideas that focus on the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language
- 110.4.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including listening to others, speaking when recognized, making appropriate contributions, and building on the ideas of others
- 110.4.b.6: Comprehension skills: listening, speaking, reading, writing, and thinking using multiple texts. The student uses metacognitive skills to both develop and deepen comprehension of increasingly complex texts. The student is expected to:
 - 110.4.b.6.G: evaluate details read to determine key ideas
 - 110.4.b.6.H: synthesize information to create new understanding
- 110.4.b.7: Response skills: listening, speaking, reading, writing, and thinking using multiple texts. The student responds to an increasingly challenging variety of sources that are read, heard, or viewed. The student is expected to:
 - 110.4.b.7.D: retell and paraphrase texts in ways that maintain meaning and logical order
 - 110.4.b.7.E: interact with sources in meaningful ways such as illustrating or writing
- 110.4.b.8: Multiple genres: listening, speaking, reading, writing, and thinking using multiple texts--literary elements. The student recognizes and analyzes literary elements within and across increasingly complex traditional, contemporary, classical, and diverse literary texts. The student is expected to:
 - 110.4.b.8.B: describe the main character's (characters') internal and external traits
 - 110.4.b.8.C: describe and understand plot elements, including the main events, the conflict, and the resolution, for texts read aloud and independently
 - 110.4.b.8.D: describe the importance of the setting
- 110.4.b.9: Multiple genres: listening, speaking, reading, writing, and thinking using multiple texts--genres. The student recognizes and analyzes genre-specific characteristics, structures, and purposes within and across increasingly complex traditional, contemporary, classical, and diverse texts. The student is expected to:
 - 110.4.b.9.A: demonstrate knowledge of distinguishing characteristics of well-known children's literature such as folktales, fables, and fairy tales



- Kindergarten:
 - 112.2.b.1: Scientific investigation and reasoning. The student develops abilities to ask questions and seek answers in classroom and outdoor investigations. The student is expected to:
 - 112.2.b.1.A: ask questions and define problems based on observations or information from text, phenomena, models, or investigations;
 - 112.2.b.1.B: plan and conduct simple descriptive investigations
 - 112.2.b.1.E: collect observations and measurements as evidence;
 - 112.2.b.1.F: record and organize data and observations using pictures, numbers, and words
 - 112.2.b.3: Scientific investigation and reasoning. The student develops abilities to ask questions and seek answers in classroom and outdoor investigations. The student is expected to:
 - 112.2.b.3.B: communicate explanations and solutions individually and collaboratively in a variety of settings and formats;
 - 112.2.b.11: Earth and space. The student knows that earth materials are important to everyday life. The student is expected to observe and generate examples of practical uses for rocks, soil, and water.
 - 112.2.b.12: Organisms and environments. The student knows that plants and animals depend on the environment to meet their basic needs for survival. The student is expected to:
 - 112.2.b.12.A: observe and identify the dependence of plants on air, sunlight, water, nutrients in the soil, and space to grow
 - 112.2.b.12.B: observe and identify the dependence of animals on air, water, food, space, and shelter
 - 112.2.b.13: Organisms and environments. The student knows that organisms resemble their parents and have structures and undergo processes that help them interact and survive within their environments. The student is expected to:
 - 112.2.b.13.C: identify and record the changes from seed, seedling, plant, flower, and fruit in a simple plant life cycle
- 1st Grade:
 - 112.3.b.1: Scientific investigation and reasoning. The student develops abilities to ask questions and seek answers in



classroom and outdoor investigations. The student is expected to:

- 112.3.b.1.A: ask questions and define problems based on observations or information from text, phenomena, models, or investigations;
- 112.3.b.1.B: use scientific practices to plan and conduct simple descriptive investigations and use engineering practices to design solutions to problems;
- 112.3.b.1.E: collect observations and measurements as evidence;
- 112.3.b.1.F: record and organize data and observations using pictures, numbers, and words
- 112.3.b.3: Scientific investigation and reasoning. The student develops abilities to ask questions and seek answers in classroom and outdoor investigations. The student is expected to:
 - 112.3.b.3.B: communicate explanations and solutions individually and collaboratively in a variety of settings and formats;
- 112.3.b.13: Organisms and environments. The student knows that organisms resemble their parents and have structures and undergo processes that help them interact and survive within their environments. The student is expected to:
 - 112.3.b.13.A: identify the external structures of different animals and compare how those structures help different animals live, move, and meet basic needs for survival
 - 112.3.b.13.B: record observations of and describe basic life cycles of animals, including a bird, a mammal, and a fish
- 2nd Grade:
 - 112.4.b.1: Scientific investigation and reasoning. The student develops abilities to ask questions and seek answers in classroom and outdoor investigations. The student is expected to:
 - 112.4.b.1.A: ask questions and define problems based on observations or information from text, phenomena, models, or investigations;
 - 112.4.b.1.B: use scientific practices to plan and conduct simple descriptive investigations and use engineering practices to design solutions to problems;
 - 112.4.b.1.E: collect observations and measurements as evidence;
 - 112.4.b.1.F: record and organize data using pictures, numbers, words, symbols, and simple graphs;



- 112.4.b.3: Scientific investigation and reasoning. The student develops abilities to ask questions and seek answers in classroom and outdoor investigations. The student is expected to:
 - 112.4.b.3.B: communicate explanations and solutions individually and collaboratively in a variety of settings and formats;
- 112.4.b.12: Organisms and environments. The student knows that living organisms have basic needs that must be met through interactions within their environment. The student is expected to:
 - 112.4.b.12.A: describe how the physical characteristics of environments, including the amount of rainfall, support plants and animals within an ecosystem
 - 112.4.b.12.B: create and describe food chains identifying producers and consumers to demonstrate how animals depend on other living things

Social Studies

- Kindergarten:
 - 113.11.c.13: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including technology. The student is expected to:
 - 113.11.c.13.D: sequence and categorize information.
 - 113.11.c.14: Social studies skills. The student communicates in oral and visual forms. The student is expected to:
 - 113.11.c.14.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
 - 113.11.c.14.D: create and interpret visuals, including pictures and maps;
- 1st Grade:
 - 113.12.c.17: Social studies skills. The student communicates in oral, visual, and written forms. The student is expected to:
 - 113.12.c.17.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
 - 113.12.c.17.D: create and interpret visual and written material;
- 2nd Grade:
 - 113.13.c.15: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including technology. The student is expected to:



- 113.13.c.15.D: interpret oral, visual, and print material by sequencing, categorizing, identifying the main idea, predicting, comparing, and contrasting;
- 113.13.c.16: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
 - 113.13.c.16.E: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
 - 113.13.c.16.F: create written and visual material such as stories, maps, and graphic organizers to express ideas;

HATCHING SCIENCE WITH CLASSROOM CHICKS

English Language Arts

- Kindergarten:
 - 110.2.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.2.b.1.C: share information and ideas by speaking audibly and clearly using the conventions of language
 - 110.2.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including taking turns
- 1st Grade:
 - 110.3.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.3.b.1.C: share information and ideas about the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language
 - 110.3.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including listening to others, speaking when recognized, and making appropriate contributions
- 2nd Grade:
 - 110.4.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.4.b.1.C: share information and ideas that focus on the topic under discussion, speaking clearly at an



appropriate pace and using the conventions of language

- 110.4.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including listening to others, speaking when recognized, making appropriate contributions, and building on the ideas of others

Science

- Kindergarten:
 - 112.2.b.1: Scientific and engineering practices. The student asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:
 - 112.2.b.1.A: ask questions and define problems based on observations or information from text, phenomena, models, or investigations
 - 112.2.b.1.B: use scientific practices to plan and conduct simple descriptive investigations and use engineering practices to design solutions to problems
 - 112.2.b.1.E: collect observations and measurements as evidence
 - 112.2.b.5: Recurring Themes and Concepts. The student uses recurring themes and concepts to make connections across disciplines. The student is expected to:
 - 112.2.b.5.A: identify and use patterns to describe phenomena or design solutions
 - 112.2.b.12: Organisms and environments. The student knows that plants and animals depend on the environment to meet their basic needs for survival. The student is expected to:
 - 112.2.b.12.B: observe and identify the dependence of animals on air, water, food, space, and shelter
 - 112.2.b.13: Organisms and environments. The student knows that organisms resemble their parents and have structures and undergo processes that help them interact and survive within their environments. The student is expected to:
 - 112.2.b.13.B: identify the different structures that animals have that allow them to interact with their environment such as seeing, hearing, moving, and grasping objects
- 1st Grade:
 - 112.3.b.1: Scientific and engineering practices. The student asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to



answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:

- 112.3.b.1.A: ask questions and define problems based on observations or information from text, phenomena, models, or investigations
- 112.3.b.1.B: use scientific practices to plan and conduct simple descriptive investigations and use engineering practices to design solutions to problems
- 112.3.b.1.E: collect observations and measurements as evidence
- 112.3.b.5: Recurring Themes and Concepts. The student uses recurring themes and concepts to make connections across disciplines. The student is expected to:
 - 112.3.b.5.A: identify and use patterns to describe phenomena or design solutions
- 112.3.b.13: Organisms and Environments: The student knows that organisms resemble their parents and have structures and undergo processes that help them interact and survive within their environments. The student is expected to:
 - 112.3.b.13.C: compare ways that young animals resemble their parents
- 2nd Grade:
 - 112.4.b.1: Scientific and engineering practices. The student asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:
 - 112.4.b.1.A: ask questions and define problems based on observations or information from text, phenomena, models, or investigations
 - 112.4.b.1.B: use scientific practices to plan and conduct simple descriptive investigations and use engineering practices to design solutions to problems
 - 112.4.b.1.E: collect observations and measurements as evidence
 - 112.4.b.5: Recurring Themes and Concepts. The student uses recurring themes and concepts to make connections across disciplines. The student is expected to:
 - 112.4.b.5.A: identify and use patterns to describe phenomena or design solutions
 - 112.4.b.5.C: measure and describe the properties of objects in terms of size and quantity
 - 112.4.b.5.D: examine the parts of a whole to define or model a system



- 112.4.b.5.G: describe how factors or conditions can cause objects, organisms, and systems to either change or stay the same
- 112.4.b.10: Earth and space. The student knows that the natural world includes earth materials that can be observed in systems and processes. The student is expected to:
 - 112.4.b.10.B: measure, record, and graph weather information, including temperature and precipitation
- 112.4.b.12: Organisms and Environments: The student describes patterns, cycles, systems, and relationships within environments. The student is expected to:
 - 112.4.b.12.A: describe how the physical characteristics of environments, including the amount of rainfall, support plants and animals within an ecosystem
- 112.4.b.13: Organisms and Environments: The student knows that organisms resemble their parents and have structures and undergo processes that help them interact and survive within their environments. The student is expected to:
 - 112.4.b.13.D: investigate and describe some of the unique life cycles of animals where young animals do not resemble their parents, including butterflies and frogs

Social Studies

- Kindergarten:
 - 113.11.c.14: Social studies skills. The student communicates in oral and visual forms. The student is expected to:
 - 113.11.c.14.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
- 1st Grade:
 - 113.12.c.9: Economics. The student understands the value of work. The student is expected to:
 - 113.12.c.9.B: describe how various jobs contribute to the production of goods and services.
 - 113.12.c.17: Social studies skills. The student communicates in oral, visual, and written forms. The student is expected to:
 - 113.12.c.17.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
- 2nd Grade:
 - 113.13.c.16: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:



- 113.13.c.16.E: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;

HOW DOES YOUR GARDEN GROW?

English Language Arts

- Kindergarten:
 - 110.2.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.2.b.1.C: share information and ideas by speaking audibly and clearly using the conventions of language
 - 110.2.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including taking turns
 - 110.2.b.5: Comprehension skills: listening, speaking, reading, writing, and thinking using multiple texts. The student uses metacognitive skills to both develop and deepen comprehension of increasingly complex texts. The student is expected to:
 - 110.2.b.5.G: evaluate details to determine what is most important with adult assistance
- 1st Grade:
 - 110.3.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.3.b.1.C: share information and ideas about the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language
 - 110.3.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including listening to others, speaking when recognized, and making appropriate contributions
 - 110.3.b.6: Comprehension skills: listening, speaking, reading, writing, and thinking using multiple texts. The student uses metacognitive skills to both develop and deepen comprehension of increasingly complex texts. The student is expected to:
 - 110.3.b.6.G: evaluate details to determine what is most important with adult assistance
- 2nd Grade:
 - 110.4.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:



- 110.4.b.1.C: share information and ideas that focus on the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language
- 110.4.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including listening to others, speaking when recognized, making appropriate contributions, and building on the ideas of others
- 110.4.b.6: Comprehension skills: listening, speaking, reading, writing, and thinking using multiple texts. The student uses metacognitive skills to both develop and deepen comprehension of increasingly complex texts. The student is expected to:
 - 110.4.b.6.G: evaluate details read to determine key ideas

Math

- Kindergarten:
 - 111.2.b.2: Number and operations. The student applies mathematical process standards to understand how to represent and compare whole numbers, the relative position and magnitude of whole numbers, and relationships within the numeration system. The student is expected to:
 - 111.2.b.2.A: count forward and backward to at least 20 with and without objects;
 - 111.2.b.2.B: read, write, and represent whole numbers from 0 to at least 20 with and without objects or pictures;
 - 111.2.b.2.C: count a set of objects up to at least 20 and demonstrate that the last number said tells the number of objects in the set regardless of their arrangement or order;
 - 111.2.b.3: Number and operations. The student applies mathematical process standards to develop an understanding of addition and subtraction situations in order to solve problems. The student is expected to:
 - 111.2.b.3.A: model the action of joining to represent addition and the action of separating to represent subtraction;
- 1st Grade:
 - 111.3.b.2: Number and operations. The student applies mathematical process standards to represent and compare whole numbers, the relative position and magnitude of whole numbers, and relationships within the numeration system related to place value. The student is expected to:
 - 111.3.b.2.C: use objects, pictures, and expanded and standard forms to represent numbers up to 120;
 - 111.3.b.3: Number and operations. The student applies mathematical process standards to develop and use strategies



for whole number addition and subtraction computations in order to solve problems. The student is expected to:

- 111.3.b.3.B: use objects and pictorial models to solve word problems involving joining, separating, and comparing sets within 20 and unknowns as any one of the terms in the problem such as $2 + 4 = []$; $3 + [] = 7$; and $5 = [] - 3$;
- 111.3.b.3.D: apply basic fact strategies to add and subtract within 20, including making 10 and decomposing a number leading to a 10;

○ 2nd Grade:

- 111.4.b.4: Number and operations. The student applies mathematical process standards to develop and use strategies and methods for whole number computations in order to solve addition and subtraction problems with efficiency and accuracy. The student is expected to:
 - 111.4.b.4.A: recall basic facts to add and subtract within 20 with automaticity;
 - 111.4.b.4.C: solve one-step and multi-step word problems involving addition and subtraction within 1,000 using a variety of strategies based on place value, including algorithms; and

Science

○ Kindergarten:

- 112.2.b.11: Earth and space. The student knows that earth materials are important to everyday life. The student is expected to observe and generate examples of practical uses for rocks, soil, and water.
- 112.2.b.12: Organisms and environments. The student knows that plants and animals depend on the environment to meet their basic needs for survival. The student is expected to:
 - 112.2.b.12.A: observe and identify the dependence of plants on air, sunlight, water, nutrients in the soil, and space to grow
- 112.2.b.13: Organisms and environments. The student knows that organisms resemble their parents and have structures and undergo processes that help them interact and survive within their environments. The student is expected to:
 - 112.2.b.13.A: identify the structures of plants, including roots, stems, leaves, flowers, and fruits
 - 112.2.b.13.C: identify and record the changes from seed, seedling, plant, flower, and fruit in a simple plant life cycle

○ 1st Grade:



- 112.3.b.11: Earth and space. The student knows that earth materials and products made from these materials are important to everyday life. The student is expected to:
 - 112.3.b.11.A: identify and describe how plants, animals, and humans use rocks, soil, and water
- 2nd Grade:
 - 112.4.b.12: Organisms and environments. The student knows that living organisms have basic needs that must be met through interactions within their environment. The student is expected to:
 - 112.4.b.12.A: describe how the physical characteristics of environments, including the amount of rainfall, support plants and animals within an ecosystem

Social Studies

- Kindergarten:
 - 113.11.c.13: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including technology. The student is expected to:
 - 113.11.c.13.D: sequence and categorize information.
 - 113.11.c.14: Social studies skills. The student communicates in oral and visual forms. The student is expected to:
 - 113.11.c.14.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
- 1st Grade:
 - 113.12.c.16: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including technology. The student is expected to:
 - 113.12.c.16.D: sequence and categorize information
 - 113.12.c.17: Social studies skills. The student communicates in oral, visual, and written forms. The student is expected to:
 - 113.12.c.17.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
- 2nd Grade:
 - 113.13.c.15: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including technology. The student is expected to:
 - 113.13.c.15.D: interpret oral, visual, and print material by sequencing, categorizing, identifying the main idea, predicting, comparing, and contrasting.



- 113.13.c.16: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
 - 113.13.c.16.E: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;

HOW TO GROW A MONSTER: THE NEEDS OF A ZUCCHINI PLANT

English Language Arts

- Kindergarten:
 - 110.2.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.2.b.1.C: share information and ideas by speaking audibly and clearly using the conventions of language
 - 110.2.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including taking turns
- 1st Grade:
 - 110.3.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.3.b.1.C: share information and ideas about the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language
 - 110.3.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including listening to others, speaking when recognized, and making appropriate contributions
- 2nd Grade:
 - 110.4.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.4.b.1.C: share information and ideas that focus on the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language
 - 110.4.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including listening to others, speaking when recognized, making appropriate contributions, and building on the ideas of others

Science

- Kindergarten:
 - 112.14.b.1: Scientific and engineering practices. The student asks questions, identifies problems, and plans and safely



conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:

- 112.2.b.1.A: ask questions and define problems based on observations or information from text, phenomena, models, or investigations
- 112.2.b.1.B: use scientific practices to plan and conduct simple descriptive investigations and use engineering practices to design solutions to problems
- 112.2.b.1.C: identify, describe, and demonstrate safe practices during classroom and field investigations as outlined in Texas Education Agency-approved safety standards
- 112.2.b.1.D: use tools, including hand lenses, goggles, trays, cups, bowls, sieves or sifters, notebooks, terrariums, aquariums, samples (rocks, sand, soil, loam, gravel, clay, seeds, and plants), windsock, demonstration thermometer, rain gauge, straws, ribbons, nonstandard measuring items, blocks or cubes, tuning fork, various flashlights, small paper cups, items that roll, noise makers, hot plate, opaque objects, transparent objects, foil pie pans, foil muffin cups, wax paper, Sun-Moon-Earth model, and plant life cycle model to observe, measure, test, and compare
- 112.2.b.1.E: collect observations and measurements as evidence
- 112.2.b.1.F: record and organize data using pictures, numbers, words, symbols, and simple graphs
- 112.2.b.5: Recurring Themes and Concepts. The student uses recurring themes and concepts to make connections across disciplines. The student is expected to:
 - 112.2.b.5.F: describe the relationship between the structure and function of objects, organisms, and systems
- 112.2.b.12: Organisms and Environments: The student knows that plants and animals depend on the environment to meet their basic needs for survival. The student is expected to:
 - 112.2.b.12.A: observe and identify the dependence of plants on air, sunlight, water, nutrients in the soil, and space to grow
- 112.2.b.13: Organisms and Environments: The student knows that organisms resemble their parents and have structures and undergo processes that help them interact and survive within their environments. The student is expected to:



- 112.2.b.13.C: identify and record the changes from seed, seedling, plant, flower, and fruit in a simple plant life cycle
- 1st Grade:
 - 112.13.b.1: Scientific and engineering practices. The student asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:
 - 112.3.b.1.A: ask questions and define problems based on observations or information from text, phenomena, models, or investigations
 - 112.3.b.1.B: use scientific practices to plan and conduct simple descriptive investigations and use engineering practices to design solutions to problems
 - 112.3.b.1.C: identify, describe, and demonstrate safe practices and the use of safety equipment during classroom and field investigations as outlined in Texas Education Agency-approved safety standards
 - 112.3.b.1.D: use tools, including hand lenses, goggles, gloves, trays, cups, bowls, beakers, sieves/sifters, tweezers, primary balance, notebooks, terrariums, aquariums, stream tables, soil samples (loam, sand, gravel, rocks, and clay), seeds, plants, windsock, pinwheel, student thermometer, demonstration thermometer, rain gauge, straws, ribbons, non-standard measuring items, flashlights, sandpaper, wax paper, items that are magnetic, nonmagnetic items, a variety of magnets, hot plate, aluminum foil, Sun-Moon-Earth model, and plant and animal life cycle models to observe, measure, test, and compare
 - 112.3.b.1.E: collect observations and measurements as evidence
 - 112.3.b.1.F: record and organize data using pictures, numbers, words, symbols, and simple graphs
 - 112.3.b.5: Recurring Themes and Concepts. The student uses recurring themes and concepts to make connections across disciplines. The student is expected to:
 - 112.3.b.5.F: describe the relationship between the structure and function of objects, organisms, and systems
 - 112.3.b.12: Organisms and Environments: The student knows that the environment is composed of relationships between living organisms and nonliving components. The student is expected to:



- 112.3.b.12.A: classify living and nonliving things based upon whether they have basic needs and produce young
- 2nd Grade:
 - 112.4.b.1: Scientific and engineering practices. The student asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:
 - 112.4.b.1.A: ask questions and define problems based on observations or information from text, phenomena, models, or investigations
 - 112.4.b.1.B: use scientific practices to plan and conduct simple descriptive investigations and use engineering practices to design solutions to problems
 - 112.4.b.1.C: identify, describe, and demonstrate safe practices and the use of safety equipment during classroom and field investigations as outlined in Texas Education Agency-approved safety standards
 - 112.4.b.1.D: use tools, including hand lenses, goggles, heat resistant gloves, trays, cups, bowls, beakers, notebooks, stream tables, soil, sand, gravel, flowering plants, student thermometer, demonstration thermometer, rain gauge, flashlights, ramps, balls, spinning tops, drums, tuning forks, sandpaper, wax paper, items that are flexible, non-flexible items, magnets, hot plate, aluminum foil, Sun-Moon-Earth model, and frog and butterfly life cycle models to observe, measure, test, and compare
 - 112.4.b.1.E: collect observations and measurements as evidence
 - 112.4.b.1.F: record and organize data using pictures, numbers, words, symbols, and simple graphs
 - 112.4.b.5: Recurring Themes and Concepts. The student uses recurring themes and concepts to make connections across disciplines. The student is expected to:
 - 112.4.b.5.F: describe the relationship between the structure and function of objects, organisms, and systems
 - 112.4.b.12: Organisms and Environments: The student describes patterns, cycles, systems, and relationships within environments. The student is expected to:
 - 112.4.b.12.A: describe how the physical characteristics of environments, including the amount of rainfall, support plants and animals within an ecosystem



- 112.4.b.12.C: explain and demonstrate how some plants depend on other living things, wind, or water for pollination and to move their seeds around

Social Studies

- Kindergarten:
 - 113.11.c.14: Social studies skills. The student communicates in oral and visual forms. The student is expected to:
 - 113.11.c.14.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
- 1st Grade:
 - 113.12.c.9: Economics. The student understands the value of work. The student is expected to:
 - 113.12.c.9.B: describe how various jobs contribute to the production of goods and services.
 - 113.12.c.17: Social studies skills. The student communicates in oral, visual, and written forms. The student is expected to:
 - 113.12.c.17.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
- 2nd Grade:
 - 113.13.c.16: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
 - 113.13.c.16.E: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;

INSIDE THE EGG, HATCHING CHICKS

English Language Arts

- Kindergarten:
 - 110.2.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.2.b.1.C: share information and ideas by speaking audibly and clearly using the conventions of language
- 1st Grade:
 - 110.3.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:



- 110.3.b.1.C: share information and ideas about the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language
- 2nd Grade:
 - 110.4.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.4.b.1.C: share information and ideas that focus on the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language

Science

- Kindergarten:
 - 112.2.b.13: Organisms and environments. The student knows that organisms resemble their parents and have structures and undergo processes that help them interact and survive within their environments. The student is expected to:
 - 112.2.b.13.B: identify the different structures that animals have that allow them to interact with their environment such as seeing, hearing, moving, and grasping objects
- 1st Grade:
 - 112.3.b.12: Organisms and environments. The student knows that the environment is composed of relationships between living organisms and nonliving components. The student is expected to:
 - 112.3.b.12.A: classify living and nonliving things based upon whether they have basic needs and produce young
 - 112.3.b.12.B: describe and record examples of interactions and dependence between living and nonliving components in terrariums or aquariums
 - 112.3.b.13: Organisms and environments. The student knows that organisms resemble their parents and have structures and undergo processes that help them interact and survive within their environments. The student is expected to:
 - 112.3.b.13.B: record observations of and describe basic life cycles of animals, including a bird, a mammal, and a fish
- 2nd Grade:
 - 112.4.b.12: Organisms and environments. The student knows that living organisms have basic needs that must be met through interactions within their environment. The student is expected to:



- 112.4.b.12.A: describe how the physical characteristics of environments, including the amount of rainfall, support plants and animals within an ecosystem
- 112.4.b.13: Organisms and environments. The student knows that organisms have structures and undergo processes that help them interact and survive within their environments. The student is expected to:
 - 112.4.b.13.B: record and compare how the structures and behaviors of animals help them find and take in food, water, and air

Social Studies

- Kindergarten:
 - 113.11.c.13: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including technology. The student is expected to:
 - 113.11.c.13.D: sequence and categorize information.
 - 113.11.c.14: Social studies skills. The student communicates in oral and visual forms. The student is expected to:
 - 113.11.c.14.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
 - 113.11.c.14.D: create and interpret visuals, including pictures and maps;
- 1st Grade:
 - 113.12.c.16: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including technology. The student is expected to:
 - 113.12.c.16.D: sequence and categorize information.
 - 113.12.c.17: Social studies skills. The student communicates in oral, visual, and written forms. The student is expected to:
 - 113.12.c.17.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
 - 113.12.c.17.D: create and interpret visual and written material;
- 2nd Grade:
 - 113.13.c.15: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including technology. The student is expected to:
 - 113.13.c.15.D: interpret oral, visual, and print material by sequencing, categorizing, identifying the main idea, predicting, comparing, and contrasting.



- 113.13.c.16: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
 - 113.13.c.16.E: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
 - 113.13.c.16.F: create written and visual material such as stories, maps, and graphic organizers to express ideas;

IT'S A MOO-STERY

English Language Arts

- Kindergarten:
 - 110.2.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.2.b.1.C: share information and ideas by speaking audibly and clearly using the conventions of language
 - 110.2.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including taking turns
 - 110.2.b.11: Composition: listening, speaking, reading, writing, and thinking using multiple texts--genres. The student uses genre characteristics and craft to compose multiple texts that are meaningful. The student is expected to:
 - 110.2.b.11.B: dictate or compose informational texts.
 - 110.2.b.12: Inquiry and research: listening, speaking, reading, writing, and thinking using multiple texts. The student engages in both short-term and sustained recursive inquiry processes for a variety of purposes. The student is expected to:
 - 110.b.12.C: gather information from a variety of sources with adult assistance;
 - 110.b.12.D: demonstrate understanding of information gathered with adult assistance;
- 1st Grade:
 - 110.3.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.3.b.1.C: share information and ideas about the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language
 - 110.3.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including



listening to others, speaking when recognized, and making appropriate contributions

- 110.3.b.12: Composition: listening, speaking, reading, writing, and thinking using multiple texts--genres. The student uses genre characteristics and craft to compose multiple texts that are meaningful. The student is expected to:
 - 110.3.b.12.B: dictate or compose informational texts, including procedural texts;
- 110.3.b.13: Inquiry and research: listening, speaking, reading, writing, and thinking using multiple texts. The student engages in both short-term and sustained recursive inquiry processes for a variety of purposes. The student is expected to:
 - 110.3.b.13.C: identify and gather relevant sources and information to answer the questions with adult assistance;
 - 110.3.b.13.D: demonstrate understanding of information gathered with adult assistance;
- 2nd Grade:
 - 110.4.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.4.b.1.C: share information and ideas that focus on the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language
 - 110.4.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including listening to others, speaking when recognized, making appropriate contributions, and building on the ideas of others
 - 110.4.b.12: Composition: listening, speaking, reading, writing, and thinking using multiple texts--genres. The student uses genre characteristics and craft to compose multiple texts that are meaningful. The student is expected to:
 - 110.4.b.12.B: compose informational texts, including procedural texts and reports;
 - 110.4.b.13: Inquiry and research: listening, speaking, reading, writing, and thinking using multiple texts. The student engages in both short-term and sustained recursive inquiry processes for a variety of purposes. The student is expected to:
 - 110.4.b.13.C: identify and gather relevant sources and information to answer the questions;
 - 110.4.b.13.E: demonstrate understanding of information gathered;



Science

- Kindergarten:
 - 112.2.b.1: Scientific and engineering practices. The student asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:
 - 112.2.b.1.A: ask questions and define problems based on observations or information from text, phenomena, models, or investigations
 - 112.2.b.1.E: collect observations and measurements as evidence
 - 112.2.b.1.F: record and organize data using pictures, numbers, words, symbols, and simple graphs
 - 112.2.b.3: Scientific and engineering practices. The student develops evidence-based explanations and communicates findings, conclusions, and proposed solutions. The student is expected to:
 - 112.2.b.3.A: develop explanations and propose solutions supported by data and models
 - 112.2.b.3.B: communicate explanations and solutions individually and collaboratively in a variety of settings and formats
 - 112.2.b.3.C: listen actively to others' explanations to identify important evidence and engage respectfully in scientific discussion
 - 112.2.b.4: Scientific and engineering practices. The student knows the contributions of scientists and recognizes the importance of scientific research and innovation on society. The student is expected to:
 - 112.2.b.4.A: explain how science or an innovation can help others
 - 112.2.b.5: Recurring Themes and Concepts. The student uses recurring themes and concepts to make connections across disciplines. The student is expected to:
 - 112.2.b.5.A: identify and use patterns to describe phenomena or design solutions
 - 112.2.b.5.F: describe the relationship between the structure and function of objects, organisms, and systems
- 1st Grade:
 - 112.3.b.1: Scientific and engineering practices. The student asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:



- 112.3.b.1.A: ask questions and define problems based on observations or information from text, phenomena, models, or investigations
- 112.3.b.1.E: collect observations and measurements as evidence
- 112.3.b.1.F: record and organize data using pictures, numbers, words, symbols, and simple graphs
- 112.3.b.3: Scientific and engineering practices. The student develops evidence-based explanations and communicates findings, conclusions, and proposed solutions. The student is expected to:
 - 112.3.b.3.A: develop explanations and propose solutions supported by data and models
 - 112.3.b.3.B: communicate explanations and solutions individually and collaboratively in a variety of settings and formats
 - 112.3.b.3.C: listen actively to others' explanations to identify important evidence and engage respectfully in scientific discussion
- 112.3.b.4: Scientific and engineering practices. The student knows the contributions of scientists and recognizes the importance of scientific research and innovation on society. The student is expected to:
 - 112.3.b.4.A: explain how science or an innovation can help others
- 112.3.b.5: Recurring Themes and Concepts. The student uses recurring themes and concepts to make connections across disciplines. The student is expected to:
 - 112.3.b.5.A: identify and use patterns to describe phenomena or design solutions
 - 112.3.b.5.F: describe the relationship between the structure and function of objects, organisms, and systems
- 112.3.b.7: Force, Motion, and Energy: The student knows that forces cause changes in motion and position in everyday life. The student is expected to:
 - 112.3.b.7.A: explain how pushes and pulls can start, stop, or change the speed or direction of an object's motion
- 112.3.b.12: Organisms and Environments: The student knows that the environment is composed of relationships between living organisms and nonliving components. The student is expected to:
 - 112.3.b.12.C: identify and illustrate how living organisms depend on each other through food chains



- 2nd Grade:
 - 112.4.b.1: Scientific and engineering practices. The student asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:
 - 112.4.b.1.A: ask questions and define problems based on observations or information from text, phenomena, models, or investigations
 - 112.4.b.1.E: collect observations and measurements as evidence
 - 112.4.b.1.F: record and organize data using pictures, numbers, words, symbols, and simple graphs
 - 112.4.b.3: Scientific and engineering practices. The student develops evidence-based explanations and communicates findings, conclusions, and proposed solutions. The student is expected to:
 - 112.4.b.3.A: develop explanations and propose solutions supported by data and models
 - 112.4.b.3.B: communicate explanations and solutions individually and collaboratively in a variety of settings and formats
 - 112.4.b.3.C: listen actively to others' explanations to identify important evidence and engage respectfully in scientific discussion
 - 112.4.b.4: Scientific and engineering practices. The student knows the contributions of scientists and recognizes the importance of scientific research and innovation on society. The student is expected to:
 - 112.4.b.4.A: explain how science or an innovation can help others
 - 112.4.b.5: Recurring Themes and Concepts. The student uses recurring themes and concepts to make connections across disciplines. The student is expected to:
 - 112.4.b.5.A: identify and use patterns to describe phenomena or design solutions
 - 112.4.b.5.E: identify forms of energy and properties of matter
 - 112.4.b.5.F: describe the relationship between the structure and function of objects, organisms, and systems
 - 112.4.b.7: Force, Motion, and Energy: The student knows that forces cause changes in motion and position in everyday life. The student is expected:
 - 112.4.b.7.A: explain how objects push on each other and may change shape when they touch or collide



- 112.4.b.12: Organisms and Environments: The student describes patterns, cycles, systems, and relationships within environments. The student is expected to:
 - 112.4.b.12.B: create and describe food chains identifying producers and consumers to demonstrate how animals depend on other living things

Social Studies

- Kindergarten:
 - 113.11.c.12: Science, technology, and society. The student understands ways technology is used in the home and school and how technology affects people's lives. The student is expected to:
 - 113.11.c.12.B: describe how technology helps accomplish specific tasks and meet people's needs;
 - 113.11.c.14: Social studies skills. The student communicates in oral and visual forms. The student is expected to:
 - 113.11.c.14.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
- 1st Grade:
 - 113.12.c.9: Economics. The student understands the value of work. The student is expected to:
 - 113.12.c.9.B: describe how various jobs contribute to the production of goods and services.
 - 113.12.15: Science, technology, and society. The student identifies individuals who created or invented new technology and understands how technology affects daily life, past and present. The student is expected to:
 - 113.12.15.A: describe how technology has affected the ways families live;
 - 113.12.c.17: Social studies skills. The student communicates in oral, visual, and written forms. The student is expected to:
 - 113.12.c.17.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
- 2nd Grade:
 - 113.13.c.13: Science, technology, and society. The student understands how science and technology have affected life, past and present. The student is expected to:



- 113.13.c.13.B: explain how science and technology have affected the ways in which people meet basic needs.
- 113.13.c.16: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
 - 113.13.c.16.E: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;

Technology Applications

- Kindergarten:

- 126.1.c.3: Creativity and innovation--innovative design process. The student takes an active role in learning by using a design process to solve authentic problems for a local or global audience, using a variety of technologies. The student is expected to:
 - 126.1.c.3.A: practice personal skills, including following directions, needed to successfully implement design processes;

- 1st Grade:

- 126.2.c.3: Creativity and innovation--innovative design process. The student takes an active role in learning by using a design process to solve authentic problems for a local or global audience, using a variety of technologies. The student is expected to:
 - 126.2.c.3.A: practice personal skills and behaviors, including following directions and mental agility, needed to implement a design process successfully;

- 2nd Grade:

- 126.3.c.3: Creativity and innovation--innovative design process. The student takes an active role in learning by using a design process to solve authentic problems for a local or global audience, using a variety of technologies. The student is expected to:
 - 126.3.c.3.A: demonstrate personal skills and behaviors, including effective communication, following directions, and mental agility, needed to implement a design process successfully;

JOHN DEERE, THAT'S WHO!

English Language Arts

- Kindergarten:



- 110.2.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.2.b.1.C: share information and ideas by speaking audibly and clearly using the conventions of language
- 110.2.b.5: Comprehension skills: listening, speaking, reading, writing, and thinking using multiple texts. The student uses metacognitive skills to both develop and deepen comprehension of increasingly complex texts. The student is expected to:
 - 110.2.b.5.G: evaluate details to determine what is most important with adult assistance
 - 110.2.b.5.H: synthesize information to create new understanding with adult assistance
- 110.2.b.6: Response skills: listening, speaking, reading, writing, and thinking using multiple texts. The student responds to an increasingly challenging variety of sources that are read, heard, or viewed. The student is expected to:
 - 110.2.b.6.E: interact with sources in meaningful ways such as illustrating or writing
- 110.2.b.7: Multiple genres: listening, speaking, reading, writing, and thinking using multiple texts--literary elements. The student recognizes and analyzes literary elements within and across increasingly complex traditional, contemporary, classical, and diverse literary texts. The student is expected to:
 - 110.2.b.7.B: identify and describe the main character(s)
- 1st Grade:
 - 110.3.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.3.b.1.C: share information and ideas about the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language
 - 110.3.b.6: Comprehension skills: listening, speaking, reading, writing, and thinking using multiple texts. The student uses metacognitive skills to both develop and deepen comprehension of increasingly complex texts. The student is expected to:
 - 110.3.b.6.G: evaluate details to determine what is most important with adult assistance
 - 110.3.b.6.H: synthesize information to create new understanding with adult assistance
 - 110.3.b.7: Response skills: listening, speaking, reading, writing, and thinking using multiple texts. The student responds to an



increasingly challenging variety of sources that are read, heard, or viewed. The student is expected to:

- 110.3.b.7.E: interact with sources in meaningful ways such as illustrating or writing
- 110.3.b.8: Multiple genres: listening, speaking, reading, writing, and thinking using multiple texts--literary elements. The student recognizes and analyzes literary elements within and across increasingly complex traditional, contemporary, classical, and diverse literary texts. The student is expected to:
 - 110.3.b.8.B: describe the main character(s) and the reason(s) for their actions
- 2nd Grade:
 - 110.4.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.4.b.1.C: share information and ideas that focus on the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language
 - 110.4.b.6: Comprehension skills: listening, speaking, reading, writing, and thinking using multiple texts. The student uses metacognitive skills to both develop and deepen comprehension of increasingly complex texts. The student is expected to:
 - 110.4.b.6.G: evaluate details read to determine key ideas
 - 110.4.b.6.H: synthesize information to create new understanding
 - 110.4.b.7: Response skills: listening, speaking, reading, writing, and thinking using multiple texts. The student responds to an increasingly challenging variety of sources that are read, heard, or viewed. The student is expected to:
 - 110.4.b.7.E: interact with sources in meaningful ways such as illustrating or writing
 - 110.4.b.8: Multiple genres: listening, speaking, reading, writing, and thinking using multiple texts--literary elements. The student recognizes and analyzes literary elements within and across increasingly complex traditional, contemporary, classical, and diverse literary texts. The student is expected to:
 - 110.4.b.8.B: describe the main character's (characters') internal and external traits

Social Studies

- Kindergarten:
 - 113.11.c.2: History. The student understands how historical figures helped shape the state and nation. The student is expected to identify contributions of historical figures, including Stephen F. Austin, George Washington, Christopher Columbus,



and José Antonio Navarro, who helped to shape the state and nation.

- 113.11.c.5: Economics. The student understands the difference between human needs and wants and how they are met. The student is expected to:
 - 113.11.c.5.C: explain how basic human needs and wants can be met
- 113.11.c.14: Social studies skills. The student communicates in oral and visual forms. The student is expected to:
 - 113.11.c.14.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
- 1st Grade:
 - 113.12.c.2: History. The student understands how historical figures helped shape the state and nation. The student is expected to:
 - 113.12.c.2.A: identify contributions of historical figures, including Sam Houston, George Washington, Abraham Lincoln, and Martin Luther King Jr., who have influenced the state and nation;
 - 113.12.c.7: Economics. The student understands the concepts of goods and services. The student is expected to:
 - 113.12.c.7.B: identify ways people exchange goods and services;
 - 113.12.c.9: Economics. The student understands the value of work. The student is expected to:
 - 113.12.c.9.B: describe how various jobs contribute to the production of goods and services.
 - 113.12.c.17: Social studies skills. The student communicates in oral, visual, and written forms. The student is expected to:
 - 113.12.c.17.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
- 2nd Grade:
 - 113.13.c.7: Economics. The student understands the roles of producers and consumers in the production of goods and services. The student is expected to:
 - 113.13.c.7.A: distinguish between producing and consuming;
 - 113.13.c.7.B: identify ways in which people are both producers and consumers;
 - 113.13.c.16: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:



- 113.13.c.16.E: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;

LET'S GO SHOPPING

English Language Arts

- Kindergarten:
 - 110.2.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.2.b.1.C: share information and ideas by speaking audibly and clearly using the conventions of language
 - 110.2.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including taking turns
 - 110.2.b.5: Comprehension skills: listening, speaking, reading, writing, and thinking using multiple texts. The student uses metacognitive skills to both develop and deepen comprehension of increasingly complex texts. The student is expected to:
 - 110.2.b.5.H: synthesize information to create new understanding with adult assistance
- 1st Grade:
 - 110.3.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.3.b.1.C: share information and ideas about the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language
 - 110.3.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including listening to others, speaking when recognized, and making appropriate contributions
 - 110.3.b.6: Comprehension skills: listening, speaking, reading, writing, and thinking using multiple texts. The student uses metacognitive skills to both develop and deepen comprehension of increasingly complex texts. The student is expected to:
 - 110.3.b.6.H: synthesize information to create new understanding with adult assistance
- 2nd Grade:
 - 110.4.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student dev



- 110.4.b.1.C: share information and ideas that focus on the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language
- 110.4.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including listening to others, speaking when recognized, making appropriate contributions, and building on the ideas of others
- 110.4.b.6: Comprehension skills: listening, speaking, reading, writing, and thinking using multiple texts. The student uses metacognitive skills to both develop and deepen comprehension of increasingly complex texts. The student is expected to:
 - 110.4.b.6.H: synthesize information to create new understanding

Math

- Kindergarten:
 - 111.2.b.3: Number and operations. The student applies mathematical process standards to develop an understanding of addition and subtraction situations in order to solve problems. The student is expected to:
 - 111.2.b.3.A: model the action of joining to represent addition and the action of separating to represent subtraction
 - 111.2.b.9: Personal financial literacy. The student applies mathematical process standards to manage one's financial resources effectively for lifetime financial security. The student is expected to:
 - 111.2.b.9.D: distinguish between wants and needs and identify income as a source to meet one's wants and needs
- 1st Grade:
 - 111.3.b.3: Number and operations. The student applies mathematical process standards to develop and use strategies for whole number addition and subtraction computations in order to solve problems. The student is expected to:
 - 111.3.b.3.D: apply basic fact strategies to add and subtract within 20, including making 10 and decomposing a number leading to a 10
 - 111.3.b.4: Number and operations. The student applies mathematical process standards to identify coins, their values, and the relationships among them in order to recognize the need for monetary transactions. The student is expected to:
 - 111.3.b.4.C: use relationships to count by twos, fives, and tens to determine the value of a collection of pennies, nickels, and/or dimes



- 111.3.b.9: Personal financial literacy. The student applies mathematical process standards to manage one's financial resources effectively for lifetime financial security. The student is expected to:
 - 111.3.b.9.A: define money earned as income
 - 111.3.b.9.B: identify income as a means of obtaining goods and services, oftentimes making choices between wants and needs
- 2nd Grade:
 - 111.4.b.4: Number and operations. The student applies mathematical process standards to develop and use strategies and methods for whole number computations in order to solve addition and subtraction problems with efficiency and accuracy. The student is expected to:
 - 111.4.b.4.A: recall basic facts to add and subtract within 20 with automaticity
 - 111.4.b.5: Number and operations. The student applies mathematical process standards to determine the value of coins in order to solve monetary transactions. The student is expected to:
 - 111.4.b.5.A: determine the value of a collection of coins up to one dollar
 - 111.4.b.5.B: use the cent symbol, dollar sign, and the decimal point to name the value of a collection of coins
 - 111.4.b.11: Personal financial literacy. The student applies mathematical process standards to manage one's financial resources effectively for lifetime financial security. The student is expected to:
 - 111.4.b.11.F: differentiate between producers and consumers and calculate the cost to produce a simple item

Social Studies

- Kindergarten:
 - 113.11.c.5: Economics. The student understands the difference between human needs and wants and how they are met. The student is expected to:
 - 113.11.c.5.B: explain the difference between needs and wants;
 - 113.11.c.5.C: explain how basic human needs and wants can be met.
 - 113.11.c.6: Economics. The student understands the value of jobs. The student is expected to:
 - 113.11.c.6.B: explain why people have jobs.
 - 113.11.c.14: Social studies skills. The student communicates in oral and visual forms. The student is expected to:



- 113.11.c.14.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
- 113.11.c.14.D: create and interpret visuals, including pictures and maps;
- 1st Grade:
 - 113.12.c.7: Economics. The student understands the concepts of goods and services. The student is expected to:
 - 113.12.c.7.A: identify examples of goods and services in the home, school, and community;
 - 113.12.c.7.B: identify ways people exchange goods and services;
 - 113.12.c.8: Economics. The student understands the condition of not being able to have all the goods and services one wants. The student is expected to:
 - 113.12.c.8.C: identify examples of choices families make when buying goods and services.
 - 113.12.c.9: Economics. The student understands the value of work. The student is expected to:
 - 113.12.c.9.B: describe how various jobs contribute to the production of goods and services.
 - 113.12.c.17: Social studies skills. The student communicates in oral, visual, and written forms. The student is expected to:
 - 113.12.c.17.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
 - 113.12.c.17.D: create and interpret visual and written material;
- 2nd Grade:
 - 113.13.c.6: Economics. The student understands the value of work. The student is expected to:
 - 113.13.c.6.A: explain how work provides income to purchase goods and services;
 - 113.13.c.7: Economics. The student understands the roles of producers and consumers in the production of goods and services. The student is expected to:
 - 113.13.c.7.A: distinguish between producing and consuming;
 - 113.13.c.7.B: identify ways in which people are both producers and consumers;
 - 113.13.c.7.C: trace the development of a product from a natural resource to a finished product.
 - 113.13.c.16: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:



- 113.13.c.16.E: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
- 113.13.c.16.F: create written and visual material such as stories, maps, and graphic organizers to express ideas;

LITTLE RED HEN

English Language Arts

- Kindergarten:
 - 110.2.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.2.b.1.C: share information and ideas by speaking audibly and clearly using the conventions of language
 - 110.2.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including taking turns
 - 110.2.b.5: Comprehension skills: listening, speaking, reading, writing, and thinking using multiple texts. The student uses metacognitive skills to both develop and deepen comprehension of increasingly complex texts. The student is expected to:
 - 110.2.b.5.G: evaluate details to determine what is most important with adult assistance;
 - 110.2.b.6: Response skills: listening, speaking, reading, writing, and thinking using multiple texts. The student responds to an increasingly challenging variety of sources that are read, heard, or viewed. The student is expected to:
 - 110.2.b.6.D: retell texts in ways that maintain meaning;
- 1st Grade:
 - 110.3.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.3.b.1.C: share information and ideas about the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language
 - 110.3.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including listening to others, speaking when recognized, and making appropriate contributions



- 110.3.b.6: Comprehension skills: listening, speaking, reading, writing, and thinking using multiple texts. The student uses metacognitive skills to both develop and deepen comprehension of increasingly complex texts. The student is expected to:
 - 110.3.b.6.G: evaluate details to determine what is most important with adult assistance;
- 110.3.b.7: Response skills: listening, speaking, reading, writing, and thinking using multiple texts. The student responds to an increasingly challenging variety of sources that are read, heard, or viewed. The student is expected to:
 - 110.3.b.7.D: retell texts in ways that maintain meaning;
- 2nd Grade:
 - 110.4.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.4.b.1.C: share information and ideas that focus on the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language
 - 110.4.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including listening to others, speaking when recognized, making appropriate contributions, and building on the ideas of others
 - 110.4.b.6: Comprehension skills: listening, speaking, reading, writing, and thinking using multiple texts. The student uses metacognitive skills to both develop and deepen comprehension of increasingly complex texts. The student is expected to:
 - 110.4.b.6.G: evaluate details read to determine key ideas;
 - 110.4.b.7: Response skills: listening, speaking, reading, writing, and thinking using multiple texts. The student responds to an increasingly challenging variety of sources that are read, heard, or viewed. The student is expected to:
 - 110.4.b.7.D: retell and paraphrase texts in ways that maintain meaning and logical order;

Science

- Kindergarten:
 - 112.2.b.1: Scientific and engineering practices. The student asks questions, identifies problems, and plans and safely



conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:

- 112.2.b.1.A: ask questions and define problems based on observations or information from text, phenomena, models, or investigations
- 112.2.b.1.B: use scientific practices to plan and conduct simple descriptive investigations and use engineering practices to design solutions to problems
- 112.2.b.1.C: identify, describe, and demonstrate safe practices during classroom and field investigations as outlined in Texas Education Agency-approved safety standards
- 112.2.b.1.D: use tools, including hand lenses, goggles, trays, cups, bowls, sieves or sifters, notebooks, terrariums, aquariums, samples (rocks, sand, soil, loam, gravel, clay, seeds, and plants), windsock, demonstration thermometer, rain gauge, straws, ribbons, nonstandard measuring items, blocks or cubes, tuning fork, various flashlights, small paper cups, items that roll, noise makers, hot plate, opaque objects, transparent objects, foil pie pans, foil muffin cups, wax paper, Sun-Moon-Earth model, and plant life cycle model to observe, measure, test, and compare
- 112.2.b.1.E: collect observations and measurements as evidence
- 112.2.b.1.F: record and organize data using pictures, numbers, words, symbols, and simple graphs
- 112.2.b.3: Scientific and engineering practices. The student develops evidence-based explanations and communicates findings, conclusions, and proposed solutions. The student is expected to:
 - 112.2.b.3.B: communicate explanations and solutions individually and collaboratively in a variety of settings and formats
- 112.2.b.4: Scientific and engineering practices. The student knows the contributions of scientists and recognizes the importance of scientific research and innovation on society. The student is expected to:
 - 112.2.b.4.B: identify scientists and engineers such as Isaac Newton, Mae Jemison, and Ynes Mexia and explore what different scientists and engineers do



- 112.2.b.5: Recurring Themes and Concepts. The student uses recurring themes and concepts to make connections across disciplines. The student is expected to:
 - 112.2.b.5.A: identify and use patterns to describe phenomena or design solutions
- 112.2.b.10: Earth and space. The student knows that the natural world includes earth materials and systems that can be observed. The student is expected to:
 - 112.2.b.10.B: observe and describe weather changes from day to day and over seasons
- 112.2.b.12: Organisms and Environments: The student knows that plants and animals depend on the environment to meet their basic needs for survival. The student is expected to:
 - 112.2.b.12.A: observe and identify the dependence of plants on air, sunlight, water, nutrients in the soil, and space to grow
- 112.2.b.13: Organisms and Environments: The student knows that organisms resemble their parents and have structures and undergo processes that help them interact and survive within their environments. The student is expected to:
 - 112.2.b.13.C: identify and record the changes from seed, seedling, plant, flower, and fruit in a simple plant life cycle
- 1st Grade:
 - 112.3.b.1: Scientific and engineering practices. The student asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:
 - 112.3.b.1.A: ask questions and define problems based on observations or information from text, phenomena, models, or investigations
 - 112.3.b.1.B: use scientific practices to plan and conduct simple descriptive investigations and use engineering practices to design solutions to problems
 - 112.3.b.1.C: identify, describe and demonstrate safe practices and the use of safety equipment during classroom and field investigations as outlined in Texas Education Agency-approved safety standards
 - 112.3.b.1.D: use tools, including hand lenses, goggles, gloves, trays, cups, bowls, beakers, sieves/sifters, tweezers, primary balance, notebooks, terrariums, aquariums, stream tables, soil samples (loam, sand, gravel, rocks, and clay), seeds, plants, windsock,



pinwheel, student thermometer, demonstration thermometer, rain gauge, straws, ribbons, non-standard measuring items, flashlights, sandpaper, wax paper, items that are magnetic, nonmagnetic items, a variety of magnets, hot plate, aluminum foil, Sun-Moon-Earth model, and plant and animal life cycle models to observe, measure, test, and compare

- 112.13.b.1.E: collect observations and measurements as evidence
- 112.3.b.1.F: record and organize data using pictures, numbers, words, symbols, and simple graphs
- 112.3.b.3: Scientific and engineering practices. The student develops evidence-based explanations and communicates findings, conclusions, and proposed solutions. The student is expected to:
 - 112.3.b.3.B: communicate explanations and solutions individually and collaboratively in a variety of settings and formats
- 112.3.b.5: Recurring Themes and Concepts. The student uses recurring themes and concepts to make connections across disciplines. The student is expected to:
 - 112.3.b.5.A: identify and use patterns to describe phenomena or design solutions
 - 112.3.b.5.B: investigate and predict cause-and-effect relationships in science
- 112.3.b.8: Force, Motion, and Energy: The student knows that energy is everywhere and can be observed in everyday life. The student is expected to:
 - 112.3.b.8.A: investigate and describe applications of heat in everyday life such as cooking food or using a clothes dryer
- 112.3.b.12: Organisms and Environments: The student knows that the environment is composed of relationships between living organisms and nonliving components. The student is expected to:
 - 112.3.b.12.A: classify living and nonliving things based upon whether they have basic needs and produce young
- 2nd Grade:
 - 112.4.b.1: Scientific and engineering practices. The student asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:



- 112.4.b.1.A: ask questions and define problems based on observations or information from text, phenomena, models, or investigations
- 112.4.b.1.B: use scientific practices to plan and conduct simple descriptive investigations and use engineering practices to design solutions to problems
- 112.4.b.1.C: identify, describe, and demonstrate safe practices and the use of safety equipment during classroom and field investigations as outlined in Texas Education Agency-approved safety standards
- 112.4.b.1.D: use tools, including hand lenses, goggles, heat resistant gloves, trays, cups, bowls, beakers, notebooks, stream tables, soil, sand, gravel, flowering plants, student thermometer, demonstration thermometer, rain gauge, flashlights, ramps, balls, spinning tops, drums, tuning forks, sandpaper, wax paper, items that are flexible, non-flexible items, magnets, hot plate, aluminum foil, Sun-Moon-Earth model, and frog and butterfly life cycle models to observe, measure, test, and compare
- 112.4.b.1.E: collect observations and measurements as evidence
- 112.4.b.1.F: record and organize data using pictures, numbers, words, symbols, and simple graphs
- 112.4.b.3: Scientific and engineering practices. The student develops evidence-based explanations and communicates findings, conclusions, and proposed solutions. The student is expected to:
 - 112.4.b.3.B: communicate explanations and solutions individually and collaboratively in a variety of settings and formats
- 112.4.b.4: Scientific and engineering practices. The student knows the contributions of scientists and recognizes the importance of scientific research and innovation on society. The student is expected to:
 - 112.4.b.4.B: identify scientists and or engineers such as Alexander Graham Bell, Marie Daly, Mario Molina, and Jane Goodall and explore what different scientists and engineers do
- 112.4.b.5: Recurring Themes and Concepts. The student uses recurring themes and concepts to make connections across disciplines. The student is expected to:
 - 112.4.b.5.A: identify and use patterns to describe phenomena or design solutions



- 112.4.b.5.B: investigate and predict cause-and-effect relationships in science
- 112.4.b.13: Organisms and Environments: The student knows that organisms resemble their parents and have structures and undergo processes that help them interact and survive within their environments. The student is expected to:
 - 112.4.b.13.A: identify the roots, stems, leaves, flowers, fruits, and seeds of plants and compare how those structures help different plants meet their basic needs for survival

Social Studies

- Kindergarten:
 - 113.11.c.14: Social studies skills. The student communicates in oral and visual forms. The student is expected to:
 - 113.11.c.14.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
 - 113.11.c.14.D: create and interpret visuals, including pictures and maps;
- 1st Grade:
 - 113.12.c.9: Economics. The student understands the value of work. The student is expected to:
 - 113.12.c.9.B: describe how various jobs contribute to the production of goods and services.
 - 113.12.c.17: Social studies skills. The student communicates in oral, visual, and written forms. The student is expected to:
 - 113.12.c.17.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
 - 113.12.c.17.D: create and interpret visual and written material;
- 2nd Grade:
 - 113.13.c.16: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
 - 113.13.c.16.E: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;

MACHINES ON THE FARM

English Language Arts

- Kindergarten:



- 110.2.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.2.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including taking turns;
- 110.2.b.2: Developing and sustaining foundational language skills: listening, speaking, reading, writing, and thinking--beginning reading and writing. The student develops word structure knowledge through phonological awareness, print concepts, phonics, and morphology to communicate, decode, and spell. The student is expected to:
 - 110.2.b.2.E: develop handwriting by accurately forming all uppercase and lowercase letters using appropriate directionality.
- 110.2.b.6: Response skills: listening, speaking, reading, writing, and thinking using multiple texts. The student responds to an increasingly challenging variety of sources that are read, heard, or viewed. The student is expected to:
 - 110.2.b.6.F: respond using newly acquired vocabulary as appropriate.
- 110.2.b.8: Multiple genres: listening, speaking, reading, writing, and thinking using multiple texts--genres. The student recognizes and analyzes genre-specific characteristics, structures, and purposes within and across increasingly complex traditional, contemporary, classical, and diverse texts. The student is expected to:
 - 110.2.b.8.B: discuss rhyme and rhythm in nursery rhymes and a variety of poems;

Math

- Kindergarten:
 - 111.2.b.2: Number and operations. The student applies mathematical process standards to understand how to represent and compare whole numbers, the relative position and magnitude of whole numbers, and relationships within the numeration system. The student is expected to:
 - 111.2.B.2.E: generate a set using concrete and pictorial models that represents a number that is more than, less than, and equal to a given number up to 20;
 - 111.2.B.2.H: use comparative language to describe two numbers up to 20 presented as written numerals;

Science

- Kindergarten:



- 112.2.b.1: Scientific and engineering practices. The student asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:
 - 112.2.b.1.A: ask questions and define problems based on observations or information from text, phenomena, models, or investigations
- 112.2.b.2: Scientific and engineering practices. The student analyzes and interprets data to derive meaning, identify features and patterns, and discover relationships or correlations to develop evidence-based arguments or evaluate designs. The student is expected to:
 - 112.2.b.2.A: identify basic advantages and limitations of models such as their size, properties, and materials
 - 112.2.b.2.D: evaluate a design or object using criteria to determine if it works as intended
- 112.2.b.4: Scientific and engineering practices. The student knows the contributions of scientists and recognizes the importance of scientific research and innovation on society. The student is expected to:
 - 112.2.b.4.A: explain how science or an innovation can help others
- 112.2.b.5: Recurring Themes and Concepts. The student uses recurring themes and concepts to make connections across disciplines. The student is expected to:
 - 112.2.b.5.D: examine the parts of a whole to define or model a system
- 112.2.b.7: Force, Motion, and Energy: The student knows that forces cause changes in motion and position in everyday life. The student is expected to describe and predict how a magnet interacts with various materials and how magnets can be used to push or pull.

Social Studies

- Kindergarten:
 - 113.11.c.14: Social studies skills. The student communicates in oral and visual forms. The student is expected to:
 - 113.11.c.14.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
 - 113.11.c.14.D: create and interpret visuals, including pictures and maps;



English Language Arts

- Kindergarten:
 - 110.2.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.2.b.1.C: share information and ideas by speaking audibly and clearly using the conventions of language
 - 110.2.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including taking turns
 - 110.2.b.12: Inquiry and research: listening, speaking, reading, writing, and thinking using multiple texts. The student engages in both short-term and sustained recursive inquiry processes for a variety of purposes. The student is expected to:
 - 110.2.b.12.D: demonstrate understanding of information gathered with adult assistance;
 - 110.2.b.12.E: use an appropriate mode of delivery, whether written, oral, or multimodal, to present results.
- 1st Grade:
 - 110.3.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.3.b.1.C: share information and ideas about the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language
 - 110.3.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including listening to others, speaking when recognized, and making appropriate contributions
 - 110.3.b.12: Inquiry and research: listening, speaking, reading, writing, and thinking using multiple texts. The student engages in both short-term and sustained recursive inquiry processes for a variety of purposes. The student is expected to:
 - 110.3.b.12.D: demonstrate understanding of information gathered with adult assistance;
 - 110.3.b.12.E: use an appropriate mode of delivery, whether written, oral, or multimodal, to present results.
- 2nd Grade:
 - 110.4.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:



- 110.4.b.1.C: share information and ideas that focus on the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language
- 110.4.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including listening to others, speaking when recognized, making appropriate contributions, and building on the ideas of others
- 110.4.b.13: Inquiry and research: listening, speaking, reading, writing, and thinking using multiple texts. The student engages in both short-term and sustained recursive inquiry processes for a variety of purposes. The student is expected to:
 - 110.4.b.13.E: demonstrate understanding of information gathered;
 - 110.4.b.13.G: use an appropriate mode of delivery, whether written, oral, or multimodal, to present results.

Science

- Kindergarten:
 - 112.2.b.1: Scientific and engineering practices. The student asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:
 - 112.2.b.1.A: ask questions and define problems based on observations or information from text, phenomena, models, or investigations
 - 112.2.b.3: Scientific and engineering practices. The student develops evidence-based explanations and communicates findings, conclusions, and proposed solutions. The student is expected to:
 - 112.2.b.3.B: communicate explanations and solutions individually and collaboratively in a variety of settings and formats
 - 112.2.b.4: Scientific and engineering practices. The student knows the contributions of scientists and recognizes the importance of scientific research and innovation on society. The student is expected to:
 - 112.2.b.4.A: explain how science or an innovation can help others
 - 112.2.b.4.B: identify scientists and engineers such as Isaac Newton, Mae Jemison, and Ynes Mexia and explore what different scientists and engineers do
 - 112.2.b.5: Recurring Themes and Concepts. The student uses recurring themes and concepts to make connections across disciplines. The student is expected to:



- 112.2.b.5.A: identify and use patterns to describe phenomena or design solutions
 - 112.2.b.7: Force, Motion, and Energy: The student knows that forces cause changes in motion and position in everyday life. The student is expected to describe and predict how a magnet interacts with various materials and how magnets can be used to push or pull.
- 1st Grade:
 - 112.3.b.1: Scientific and engineering practices. The student asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:
 - 112.3.b.1.A: ask questions and define problems based on observations or information from text, phenomena, models, or investigations
 - 112.3.b.3: Scientific and engineering practices. The student develops evidence-based explanations and communicates findings, conclusions, and proposed solutions. The student is expected to:
 - 112.3.b.3.B: communicate explanations and solutions individually and collaboratively in a variety of settings and formats
 - 112.3.b.4: Scientific and engineering practices. The student knows the contributions of scientists and recognizes the importance of scientific research and innovation on society. The student is expected to:
 - 112.3.b.4.A: explain how science or an innovation can help others
 - 112.3.b.4.B: identify scientists and engineers such as Katherine Johnson, Sally Ride, and Ernest Just and explore what different scientists and engineers do
 - 112.3.b.5: Recurring Themes and Concepts. The student uses recurring themes and concepts to make connections across disciplines. The student is expected to:
 - 112.3.b.5.A: identify and use patterns to describe phenomena or design solutions
 - 112.3.b.7: Force, Motion, and Energy: The student knows that forces cause changes in motion and position in everyday life. The student is expected:
 - 112.3.b.7.A: explain how pushes and pulls can start, stop, or change the speed or direction of an object's motion
- 2nd Grade:



- 112.4.b.1: Scientific and engineering practices. The student asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:
 - 112.4.b.1.A: ask questions and define problems based on observations or information from text, phenomena, models, or investigations
- 112.4.b.3: Scientific and engineering practices. The student develops evidence-based explanations and communicates findings, conclusions, and proposed solutions. The student is expected to:
 - 112.4.b.3.B: communicate explanations and solutions individually and collaboratively in a variety of settings and formats
- 112.4.b.4: Scientific and engineering practices. The student knows the contributions of scientists and recognizes the importance of scientific research and innovation on society. The student is expected to:
 - 112.4.b.4.A: explain how science or an innovation can help others
 - 112.4.b.4.B: identify scientists and or engineers such as Alexander Graham Bell, Marie Daly, Mario Molina, and Jane Goodall and explore what different scientists and engineers do
- 112.4.b.5: Recurring Themes and Concepts. The student uses recurring themes and concepts to make connections across disciplines. The student is expected to:
 - 112.4.b.5.A: identify and use patterns to describe phenomena or design solutions
- 112.4.b.7: Force, Motion, and Energy: The student knows that forces cause changes in motion and position in everyday life. The student is expected:
 - 112.4.b.7.A: explain how objects push on each other and may change shape when they touch or collide

Social Studies

- Kindergarten:
 - 113.11.c.12: Science, technology, and society. The student understands ways technology is used in the home and school and how technology affects people's lives. The student is expected to:
 - 113.11.c.12.B: describe how technology helps accomplish specific tasks and meet people's needs;



- 113.11.c.14: Social studies skills. The student communicates in oral and visual forms. The student is expected to:
 - 113.11.c.14.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
- 1st Grade:
 - 113.12.c.9: Economics. The student understands the value of work. The student is expected to:
 - 113.12.c.9.B: describe how various jobs contribute to the production of goods and services.
 - 113.12.15: Science, technology, and society. The student identifies individuals who created or invented new technology and understands how technology affects daily life, past and present. The student is expected to:
 - 113.12.15.A: describe how technology has affected the ways families live;
 - 113.12.c.17: Social studies skills. The student communicates in oral, visual, and written forms. The student is expected to:
 - 113.12.c.17.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
- 2nd Grade:
 - 113.13.c.13: Science, technology, and society. The student understands how science and technology have affected life, past and present. The student is expected to:
 - 113.13.c.13.B: explain how science and technology have affected the ways in which people meet basic needs.
 - 113.13.c.16: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
 - 113.13.c.16.E: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;

Technology Applications

- Kindergarten:
 - 126.1.c.3: Creativity and innovation--innovative design process. The student takes an active role in learning by using a design process to solve authentic problems for a local or global audience, using a variety of technologies. The student is expected to:
 - 126.1.c.3.A: practice personal skills, including following directions, needed to successfully implement design processes;



- 1st Grade:
 - 126.2.c.3: Creativity and innovation--innovative design process. The student takes an active role in learning by using a design process to solve authentic problems for a local or global audience, using a variety of technologies. The student is expected to:
 - 126.2.c.3.A: practice personal skills and behaviors, including following directions and mental agility, needed to implement a design process successfully;
- 2nd Grade:
 - 126.3.c.3: Creativity and innovation--innovative design process. The student takes an active role in learning by using a design process to solve authentic problems for a local or global audience, using a variety of technologies. The student is expected to:
 - 126.3.c.3.A: demonstrate personal skills and behaviors, including effective communication, following directions, and mental agility, needed to implement a design process successfully;

MILK OR MEAT? BEEF OR DAIRY?

English Language Arts

- Kindergarten:
 - 110.2.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.2.b.1.C: share information and ideas by speaking audibly and clearly using the conventions of language
 - 110.2.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including taking turns
 - 110.2.b.5: Comprehension skills: listening, speaking, reading, writing, and thinking using multiple texts. The student uses metacognitive skills to both develop and deepen comprehension of increasingly complex texts. The student is expected to:
 - 110.2.b.5.G: evaluate details to determine what is most important with adult assistance
- 1st Grade:
 - 110.3.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.3.b.1.C: share information and ideas about the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language



- 110.3.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including listening to others, speaking when recognized, and making appropriate contributions
- 110.3.b.2: Developing and sustaining foundational language skills: listening, speaking, reading, writing, and thinking--beginning reading and writing. The student develops word structure knowledge through phonological awareness, print concepts, phonics, and morphology to communicate, decode, and spell. The student is expected to:
 - 110.3.b.2.F: develop handwriting by printing words, sentences, and answers legibly leaving appropriate spaces between words
- 110.3.b.6: Comprehension skills: listening, speaking, reading, writing, and thinking using multiple texts. The student uses metacognitive skills to both develop and deepen comprehension of increasingly complex texts. The student is expected to:
 - 110.3.b.6.G: evaluate details to determine what is most important with adult assistance
- 2nd Grade:
 - 110.4.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.4.b.1.C: share information and ideas that focus on the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language
 - 110.4.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including listening to others, speaking when recognized, making appropriate contributions, and building on the ideas of others
 - 110.4.b.6: Comprehension skills: listening, speaking, reading, writing, and thinking using multiple texts. The student uses metacognitive skills to both develop and deepen comprehension of increasingly complex texts. The student is expected to:
 - 110.4.b.6.G: evaluate details read to determine key ideas

Math

- Kindergarten:
 - 111.2.b.1: Mathematical process standards. The student uses mathematical processes to acquire and demonstrate mathematical understanding. The student is expected to:
 - 111.2.b.1.C: select tools, including real objects, manipulatives, paper and pencil, and technology as appropriate, and techniques, including mental math,



- estimation, and number sense as appropriate, to solve problems
- 111.2.b.3: Number and operations. The student applies mathematical process standards to develop an understanding of addition and subtraction situations in order to solve problems. The student is expected to:
 - 111.2.b.3.A: model the action of joining to represent addition and the action of separating to represent subtraction
 - 111.2.b.3.B: solve word problems using objects and drawings to find sums up to 10 and differences within 10
 - 111.2.b.3.C: explain the strategies used to solve problems involving adding and subtracting within 10 using spoken words, concrete and pictorial models, and number sentences
- 111.2.b.8: Data analysis. The student applies mathematical process standards to collect and organize data to make it useful for interpreting information. The student is expected to:
 - 111.2.b.8.A: collect, sort, and organize data into two or three categories
 - 111.2.b.8.B: use data to create real-object and picture graphs
 - 111.2.b.8.C: draw conclusions from real-object and picture graphs
- 1st Grade:
 - 111.3.b.1: Mathematical process standards. The student uses mathematical processes to acquire and demonstrate mathematical understanding. The student is expected to:
 - 111.3.b.1.C: select tools, including real objects, manipulatives, paper and pencil, and technology as appropriate, and techniques, including mental math, estimation, and number sense as appropriate, to solve problems
 - 111.3.b.3: Number and operations. The student applies mathematical process standards to develop and use strategies for whole number addition and subtraction computations in order to solve problems. The student is expected to:
 - 111.3.b.3.B: use objects and pictorial models to solve word problems involving joining, separating, and comparing sets within 20 and unknowns as any one of the terms in the problem such as $2 + 4 = []$; $3 + [] = 7$; and $5 = [] - 3$
 - 111.3.b.3.D: apply basic fact strategies to add and subtract within 20, including making 10 and decomposing a number leading to a 10
 - 111.3.b.3.E: explain strategies used to solve addition and subtraction problems up to 20 using spoken words, objects, pictorial models, and number sentences



- 111.3.b.3.F: generate and solve problem situations when given a number sentence involving addition or subtraction of numbers within 20
 - 111.3.b.8: Data analysis. The student applies mathematical process standards to organize data to make it useful for interpreting information and solving problems. The student is expected to:
 - 111.3.b.8.A: collect, sort, and organize data in up to three categories using models/representations such as tally marks or T-charts
 - 111.3.b.8.B: use data to create picture and bar-type graphs
 - 111.3.b.8.C: draw conclusions and generate and answer questions using information from picture and bar-type graphs
- 2nd Grade:
 - 111.4.b.1: Mathematical process standards. The student uses mathematical processes to acquire and demonstrate mathematical understanding. The student is expected to:
 - 111.4.b.1.C: select tools, including real objects, manipulatives, paper and pencil, and technology as appropriate, and techniques, including mental math, estimation, and number sense as appropriate, to solve problems
 - 111.4.b.4: Number and operations. The student applies mathematical process standards to develop and use strategies and methods for whole number computations in order to solve addition and subtraction problems with efficiency and accuracy. The student is expected to:
 - 111.4.b.4.A: recall basic facts to add and subtract within 20 with automaticity
 - 111.4.b.4.C: solve one-step and multi-step word problems involving addition and subtraction within 1,000 using a variety of strategies based on place value, including algorithms
 - 111.4.b.4.D: generate and solve problem situations for a given mathematical number sentence involving addition and subtraction of whole numbers within 1,000
 - 111.4.b.10: Data analysis. The student applies mathematical process standards to organize data to make it useful for interpreting information and solving problems. The student is expected to:
 - 111.4.b.10.A: explain that the length of a bar in a bar graph or the number of pictures in a pictograph represents the number of data points for a given category



- 111.4.b.10.B: organize a collection of data with up to four categories using pictographs and bar graphs with intervals of one or more
- 111.4.b.10.C: write and solve one-step word problems involving addition or subtraction using data represented within pictographs and bar graphs with intervals of one
- 111.4.b.10.D: draw conclusions and make predictions from information in a graph

Social Studies

- Kindergarten:
 - 113.11.c.13: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including technology. The student is expected to:
 - 113.11.c.13.D: sequence and categorize information.
 - 113.11.c.14: Social studies skills. The student communicates in oral and visual forms. The student is expected to:
 - 113.11.c.14.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
 - 113.11.c.14.D: create and interpret visuals, including pictures and maps;
- 1st Grade:
 - 113.12.c.16: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including technology. The student is expected to:
 - 113.12.c.16.D: sequence and categorize information.
 - 113.12.c.17: Social studies skills. The student communicates in oral, visual, and written forms. The student is expected to:
 - 113.12.c.17.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
 - 113.12.c.17.D: create and interpret visual and written material;
- 2nd Grade:
 - 113.13.c.15: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including technology. The student is expected to:
 - 113.13.c.15.D: interpret oral, visual, and print material by sequencing, categorizing, identifying the main idea, predicting, comparing, and contrasting.
 - 113.13.c.15.F: create written and visual material such as stories, maps, and graphic organizers to express ideas;



MILK, SUGAR, SCIENCE: ENGINEERING ICE CREAM

English Language Arts

- Kindergarten:
 - 110.2.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.2.b.1.C: share information and ideas by speaking audibly and clearly using the conventions of language
 - 110.2.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including taking turns
- 1st Grade:
 - 110.3.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.3.b.1.C: share information and ideas about the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language
 - 110.3.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including listening to others, speaking when recognized, and making appropriate contributions
- 2nd Grade:
 - 110.4.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.4.b.1.C: share information and ideas that focus on the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language
 - 110.4.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including listening to others, speaking when recognized, making appropriate contributions, and building on the ideas of others

Math

- Kindergarten:
 - 111.2.b.8: Data analysis. The student applies mathematical process standards to collect and organize data to make it useful for interpreting information. The student is expected to:
 - 111.2.b.8.A: collect, sort, and organize data into two or three categories
 - 111.2.b.8.B: use data to create real-object and picture graphs



- 111.2.b.8.C: draw conclusions from real-object and picture graphs
- 1st Grade:
 - 111.3.b.8: Data analysis. The student applies mathematical process standards to organize data to make it useful for interpreting information and solving problems. The student is expected to:
 - 111.3.b.8.A: collect, sort, and organize data in up to three categories using models/representations such as tally marks or T-charts
 - 111.3.b.8.B: use data to create picture and bar-type graphs
 - 111.3.b.8.C: draw conclusions and generate and answer questions using information from picture and bar-type graphs
- 2nd Grade:
 - 111.4.b.10: Data analysis. The student applies mathematical process standards to organize data to make it useful for interpreting information and solving problems. The student is expected to:
 - 111.4.b.10.B: organize a collection of data with up to four categories using pictographs and bar graphs with intervals of one or more
 - 111.4.b.10.D: draw conclusions and make predictions from information in a graph

Science

- Kindergarten:
 - 112.2.b.1: Scientific and engineering practices. The student asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:
 - 112.2.b.1.A: ask questions and define problems based on observations or information from text, phenomena, models, or investigations
 - 112.2.b.1.B: use scientific practices to plan and conduct simple descriptive investigations and use engineering practices to design solutions to problems
 - 112.2.b.1.D: use tools, including hand lenses, goggles, trays, cups, bowls, sieves or sifters, notebooks, terrariums, aquariums, samples (rocks, sand, soil, loam, gravel, clay, seeds, and plants), windsock, demonstration thermometer, rain gauge, straws, ribbons, nonstandard measuring items, blocks or cubes, tuning fork, various flashlights, small paper cups, items that roll, noise



makers, hot plate, opaque objects, transparent objects, foil pie pans, foil muffin cups, wax paper, Sun-Moon-Earth model, and plant life cycle model to observe, measure, test, and compare

- 112.2.b.1.E: collect observations and measurements as evidence
- 112.2.b.1.F: record and organize data using pictures, numbers, words, symbols, and simple graphs
- 112.2.b.4: Scientific and engineering practices. The student knows the contributions of scientists and recognizes the importance of scientific research and innovation on society. The student is expected to:
 - 112.2.b.4.A: explain how science or an innovation can help others
 - 112.2.b.4.B: identify scientists and engineers such as Isaac Newton, Mae Jemison, and Ynes Mexia and explore what different scientists and engineers do
- 112.12b.5: Recurring Themes and Concepts. The student uses recurring themes and concepts to make connections across disciplines. The student is expected to:
 - 112.2.b.5.A: identify and use patterns to describe phenomena or design solutions
 - 112.2.b.5.G: describe how factors or conditions can cause objects, organisms, and systems to either change or stay the same
- 112.2.b.6: Matter and Its Properties: The student knows that objects have physical properties that determine how they are described and classified. The student is expected to identify and record observable physical properties of objects, including shape, color, texture, and material, and generate ways to classify objects
- 112.2.b.7: Force, Motion, and Energy: The student knows that forces cause changes in motion and position in everyday life. The student is expected to describe and predict how a magnet interacts with various materials and how magnets can be used to push or pull.
- 112.2.b.12: Organisms and Environments: The student knows that plants and animals depend on the environment to meet their basic needs for survival. The student is expected to:
 - 112.11.b.12.B: observe and identify the dependence of animals on air, water, food, space, and shelter.
- 1st Grade:
 - 112.3.b.1: Scientific and engineering practices. The student asks questions, identifies problems, and plans and safely



conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:

- 112.3.b.1.A: ask questions and define problems based on observations or information from text, phenomena, models, or investigations
- 112.3.b.1.B: use scientific practices to plan and conduct simple descriptive investigations and use engineering practices to design solutions to problems
- 112.3.b.1.D: use tools, including hand lenses, goggles, gloves, trays, cups, bowls, beakers, sieves/sifters, tweezers, primary balance, notebooks, terrariums, aquariums, stream tables, soil samples (loam, sand, gravel, rocks, and clay), seeds, plants, windsock, pinwheel, student thermometer, demonstration thermometer, rain gauge, straws, ribbons, non-standard measuring items, flashlights, sandpaper, wax paper, items that are magnetic, nonmagnetic items, a variety of magnets, hot plate, aluminum foil, Sun-Moon-Earth model, and plant and animal life cycle models to observe, measure, test, and compare
- 112.3.b.1.E: collect observations and measurements as evidence
- 112.3.b.1.F: record and organize data using pictures, numbers, words, symbols, and simple graphs
- 112.3.b.4: Scientific and engineering practices. The student knows the contributions of scientists and recognizes the importance of scientific research and innovation on society. The student is expected to:
 - 112.3.b.4.A: explain how science or an innovation can help others
 - 112.3.b.4.B: identify scientists and engineers such as Katherine Johnson, Sally Ride, and Ernest Just and explore what different scientists and engineers do
- 112.3.b.5: Recurring Themes and Concepts. The student uses recurring themes and concepts to make connections across disciplines. The student is expected to:
 - 112.3.b.5.A: identify and use patterns to describe phenomena or design solutions
 - 112.3.b.5.F: describe the relationship between the structure and function of objects, organisms, and systems
- 112.3.b.6: Matter and Its Properties: The student knows that objects have physical properties that determine how they are described and classified. The student is expected to:



- 12.3.b.6.A: classify objects by observable physical properties, including, shape, color, and texture, and attributes such as larger and smaller and heavier and lighter
- 12.3.b.6.B: explain and predict changes in materials caused by heating and cooling
- 112.3.b.8: Force, Motion, and Energy: The student knows that energy is everywhere and can be observed in everyday life. The student is expected to:
 - 112.3.b.8.A: investigate and describe applications of heat in everyday life such as cooking food or using a clothes dryer
- 2nd Grade:
 - 112.4.b.1: Scientific and engineering practices. The student asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:
 - 112.4.b.1.A: ask questions and define problems based on observations or information from text, phenomena, models, or investigations
 - 112.4.b.1.B: use scientific practices to plan and conduct simple descriptive investigations and use engineering practices to design solutions to problems
 - 112.4.b.1.D: use tools, including hand lenses, goggles, heat resistant gloves, trays, cups, bowls, beakers, notebooks, stream tables, soil, sand, gravel, flowering plants, student thermometer, demonstration thermometer, rain gauge, flashlights, ramps, balls, spinning tops, drums, tuning forks, sandpaper, wax paper, items that are flexible, non-flexible items, magnets, hot plate, aluminum foil, Sun-Moon-Earth model, and frog and butterfly life cycle models to observe, measure, test, and compare
 - 112.4.b.1.E: collect observations and measurements as evidence
 - 112.4.b.1.F: record and organize data using pictures, numbers, words, symbols, and simple graphs
 - 112.4.b.4: Scientific and engineering practices. The student knows the contributions of scientists and recognizes the importance of scientific research and innovation on society. The student is expected to:
 - 112.4.b.4.A: explain how science or an innovation can help others



- 112.4.b.4.B: identify scientists and or engineers such as Alexander Graham Bell, Marie Daly, Mario Molina, and Jane Goodall and explore what different scientists and engineers do
- 112.4.b.5: Recurring Themes and Concepts. The student uses recurring themes and concepts to make connections across disciplines. The student is expected to:
 - 112.4.b.5.A: identify and use patterns to describe phenomena or design solutions
 - 112.4.b.5.E: identify forms of energy and properties of matter
- 112.4.b.6: Matter and Its Properties: The student knows that objects have physical properties that determine how they are described and classified. The student is expected to:
 - 12.4.b.6.A: classify matter by observable physical properties, including texture, flexibility, and relative temperature, and identify whether a material is a solid or liquid;
 - 12.4.b.6.B: conduct a descriptive investigation to explain how physical properties can be changed through processes such as cutting, folding, sanding, melting, or freezing

Social Studies

- Kindergarten:
 - 113.11.c.13: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including technology. The student is expected to:
 - 113.11.c.13.D: sequence and categorize information.
 - 113.11.c.14: Social studies skills. The student communicates in oral and visual forms. The student is expected to:
 - 113.11.c.14.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
- 1st Grade:
 - 113.12.c.16: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including technology. The student is expected to:
 - 113.12.c.16.D: sequence and categorize information
 - 113.12.c.17: Social studies skills. The student communicates in oral, visual, and written forms. The student is expected to:
 - 113.12.c.17.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;



TEXAS FARM BUREAU®

- 2nd Grade:
 - 113.13.c.7: Economics. The student understands the roles of producers and consumers in the production of goods and services. The student is expected to:
 - 113.13.c.7.C: trace the development of a product from a natural resource to a finished product
 - 113.13.c.15: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including technology. The student is expected to:
 - 113.13.c.15.D: interpret oral, visual, and print material by sequencing, categorizing, identifying the main idea, predicting, comparing, and contrasting.
 - 113.13.c.16: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
 - 113.13.c.16.E: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;

MY FARM WEB

English Language Arts

- Kindergarten:
 - 110.2.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.2.b.1.C: share information and ideas by speaking audibly and clearly using the conventions of language
 - 110.2.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including taking turns
 - 110.2.b.5: Comprehension skills: listening, speaking, reading, writing, and thinking using multiple texts. The student uses metacognitive skills to both develop and deepen comprehension of increasingly complex texts. The student is expected to:
 - 110.2.b.5.G: evaluate details to determine what is most important with adult assistance
 - 110.2.b.6: Response skills: listening, speaking, reading, writing, and thinking using multiple texts. The student responds to an increasingly challenging variety of sources that are read, heard, or viewed. The student is expected to:
 - 110.2.b.6.F: respond using newly acquired vocabulary as appropriate
- 1st Grade:
 - 110.3.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral



language. The student develops oral language through listening, speaking, and discussion. The student is expected to:

- 110.3.b.1.C: share information and ideas about the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language
- 110.3.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including listening to others, speaking when recognized, and making appropriate contributions
- 110.3.b.6: Comprehension skills: listening, speaking, reading, writing, and thinking using multiple texts. The student uses metacognitive skills to both develop and deepen comprehension of increasingly complex texts. The student is expected to:
 - 110.3.b.6.G: evaluate details to determine what is most important with adult assistance
- 110.3.b.7: Response skills: listening, speaking, reading, writing, and thinking using multiple texts. The student responds to an increasingly challenging variety of sources that are read, heard, or viewed. The student is expected to:
 - 110.3.b.7.F: respond using newly acquired vocabulary as appropriate
- 2nd Grade:
 - 110.4.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.4.b.1.C: share information and ideas that focus on the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language
 - 110.4.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including listening to others, speaking when recognized, making appropriate contributions, and building on the ideas of others
 - 110.4.b.6: Comprehension skills: listening, speaking, reading, writing, and thinking using multiple texts. The student uses metacognitive skills to both develop and deepen comprehension of increasingly complex texts. The student is expected to:
 - 110.4.b.6.G: evaluate details read to determine key ideas
 - 110.4.b.7: Response skills: listening, speaking, reading, writing, and thinking using multiple texts. The student responds to an increasingly challenging variety of sources that are read, heard, or viewed. The student is expected to:
 - 110.4.b.7.F: respond using newly acquired vocabulary as appropriate



- Kindergarten:
 - 113.11.c.13: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including technology. The student is expected to:
 - 113.11.c.13.D: sequence and categorize information.
 - 113.11.c.14: Social studies skills. The student communicates in oral and visual forms. The student is expected to:
 - 113.11.c.14.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
 - 113.11.c.14.D: create and interpret visuals, including pictures and maps;
- 1st Grade:
 - 113.12.c.16: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including technology. The student is expected to:
 - 113.12.c.16.D: sequence and categorize information.
 - 113.12.c.17: Social studies skills. The student communicates in oral, visual, and written forms. The student is expected to:
 - 113.12.c.17.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
 - 113.12.c.17.D: create and interpret visual and written material;
- 2nd Grade:
 - 113.13.c.15: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including technology. The student is expected to:
 - 113.13.c.15.D: interpret oral, visual, and print material by sequencing, categorizing, identifying the main idea, predicting, comparing, and contrasting.
 - 113.14.c.16: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
 - 113.14.c.16.E: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
 - 113.14.c.16.F: create written and visual material such as stories, maps, and graphic organizers to express ideas;

MY LITTLE SEED HOUSE AND SEED BOOK

English Language Arts

- Kindergarten:



- 110.2.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.2.b.1.C: share information and ideas by speaking audibly and clearly using the conventions of language
 - 110.2.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including taking turns
- 1st Grade:
 - 110.3.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.3.b.1.C: share information and ideas about the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language
 - 110.3.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including listening to others, speaking when recognized, and making appropriate contributions
- 2nd Grade:
 - 110.4.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.4.b.1.C: share information and ideas that focus on the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language
 - 110.4.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including listening to others, speaking when recognized, making appropriate contributions, and building on the ideas of others

Science

- Kindergarten:
 - 112.2.b.1: Scientific and engineering practices. The student asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:



- 112.2.b.1.A: ask questions and define problems based on observations or information from text, phenomena, models, or investigations
- 112.2.b.1.B: use scientific practices to plan and conduct simple descriptive investigations and use engineering practices to design solutions to problems
- 112.2.b.1.E: collect observations and measurements as evidence
- 112.2.b.1.F: record and organize data using pictures, numbers, words, symbols, and simple graphs
- 112.2.b.1.G: develop and use models to represent phenomena, objects, and processes or design a prototype for a solution to a problem
- 112.2.b.2: Scientific and engineering practices. The student analyzes and interprets data to derive meaning, identify features and patterns, and discover relationships or correlations to develop evidence-based arguments or evaluate designs. The student is expected to:
 - 112.2.b.2.A: identify basic advantages and limitations of models such as their size, properties, and materials
 - 112.2.b.2.B: analyze data by identifying significant features and patterns
 - 112.2.b.2.C: use mathematical concepts to compare two objects with common attributes
 - 112.2.b.2.D: evaluate a design or object using criteria to determine if it works as intended
- 112.2.b.3: Scientific and engineering practices. The student develops evidence-based explanations and communicates findings, conclusions, and proposed solutions. The student is expected to:
 - 112.2.b.3.A: develop explanations and propose solutions supported by data and models
 - 112.2.b.3.B: communicate explanations and solutions individually and collaboratively in a variety of settings and formats
 - 112.2.b.3.C: listen actively to others' explanations to identify important evidence and engage respectfully in scientific discussion
- 112.2.b.4: Scientific and engineering practices. The student knows the contributions of scientists and recognizes the importance of scientific research and innovation on society. The student is expected to:
 - 112.2.b.4.A: explain how science or an innovation can help others



- 112.2.b.5: Recurring Themes and Concepts. The student uses recurring themes and concepts to make connections across disciplines. The student is expected to:
 - 112.2.b.5.A: identify and use patterns to describe phenomena or design solutions
 - 112.2.b.5.G: describe how factors or conditions can cause objects, organisms, and systems to either change or stay the same
- 112.2.b.12: Organisms and Environments: The student knows that plants and animals depend on the environment to meet their basic needs for survival. The student is expected to:
 - 112.2.b.12.A: observe and identify the dependence of plants on air, sunlight, water, nutrients in the soil, and space to grow
- 112.2.b.13: Organisms and Environments: The student knows that organisms resemble their parents and have structures and undergo processes that help them interact and survive within their environments. The student is expected to:
 - 112.2.b.13.A: identify the structures of plants, including roots, stems, leaves, flowers, and fruits
 - 112.2.b.13.C: identify and record the changes from seed, seedling, plant, flower, and fruit in a simple plant life cycle
- 1st Grade:
 - 112.3.b.1: Scientific and engineering practices. The student asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:
 - 112.3.b.1.A: ask questions and define problems based on observations or information from text, phenomena, models, or investigations
 - 112.3.b.1.B: use scientific practices to plan and conduct simple descriptive investigations and use engineering practices to design solutions to problems
 - 112.3.b.1.E: collect observations and measurements as evidence
 - 112.3.b.1.F: record and organize data using pictures, numbers, words, symbols, and simple graphs
 - 112.3.b.1.G: develop and use models to represent phenomena, objects, and processes or design a prototype for a solution to a problem



- 112.3.b.2: Scientific and engineering practices. The student analyzes and interprets data to derive meaning, identify features and patterns, and discover relationships or correlations to develop evidence-based arguments or evaluate designs. The student is expected to:
 - 112.3.b.2.A: identify basic advantages and limitations of models such as their size, properties, and materials
 - 112.3.b.2.B: analyze data by identifying significant features and patterns
 - 112.3.b.2.C: use mathematical concepts to compare two objects with common attributes
 - 112.3.b.3: Scientific and engineering practices. The student develops evidence-based explanations and communicates findings, conclusions, and proposed solutions. The student is expected to:
 - 112.3.b.3.A: develop explanations and propose solutions supported by data and models
 - 112.3.b.3.B: communicate explanations and solutions individually and collaboratively in a variety of settings and formats
 - 112.3.b.3.C: listen actively to others' explanations to identify important evidence and engage respectfully in scientific discussion
 - 112.3.b.4: Scientific and engineering practices. The student knows the contributions of scientists and recognizes the importance of scientific research and innovation on society. The student is expected to:
 - 112.3.b.4.A: explain how science or an innovation can help others
 - 112.3.b.5: Recurring Themes and Concepts. The student uses recurring themes and concepts to make connections across disciplines. The student is expected to:
 - 112.3.b.5.A: identify and use patterns to describe phenomena or design solutions
 - 112.3.b.5.G: describe how factors or conditions can cause objects, organisms, and systems to either change or stay the same
 - 112.3.b.12: Organisms and Environments: The student knows that the environment is composed of relationships between living organisms and nonliving components. The student is expected to:
 - 112.3.b.12.A: classify living and nonliving things based upon whether they have basic needs and produce young
- 2nd Grade:



- 112.4.b.1: Scientific and engineering practices. The student asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:
 - 112.4.b.1.A: ask questions and define problems based on observations or information from text, phenomena, models, or investigations
 - 112.4.b.1.B: use scientific practices to plan and conduct simple descriptive investigations and use engineering practices to design solutions to problems
 - 112.4.b.1.E: collect observations and measurements as evidence
 - 112.4.b.1.F: record and organize data using pictures, numbers, words, symbols, and simple graphs
 - 112.4.b.1.G: develop and use models to represent phenomena, objects, and processes or design a prototype for a solution to a problem
- 112.4.b.2: Scientific and engineering practices. The student analyzes and interprets data to derive meaning, identify features and patterns, and discover relationships or correlations to develop evidence-based arguments or evaluate designs. The student is expected to:
 - 112.4.b.2.A: identify basic advantages and limitations of models such as their size, properties, and materials
 - 112.4.b.2.B: analyze data by identifying significant features and patterns
- 112.4.b.3: Scientific and engineering practices. The student develops evidence-based explanations and communicates findings, conclusions, and proposed solutions. The student is expected to:
 - 112.4.b.3.A: develop explanations and propose solutions supported by data and models
 - 112.4.b.3.B: communicate explanations and solutions individually and collaboratively in a variety of settings and formats
 - 112.4.b.3.C: listen actively to others' explanations to identify important evidence and engage respectfully in scientific discussion
- 112.4.b.4: Scientific and engineering practices. The student knows the contributions of scientists and recognizes the importance of scientific research and innovation on society. The student is expected to:
 - 112.4.b.4.A: explain how science or an innovation can help others



- 112.4.b.5: Recurring Themes and Concepts. The student uses recurring themes and concepts to make connections across disciplines. The student is expected to:
 - 112.4.b.5.A: identify and use patterns to describe phenomena or design solutions
 - 112.4.b.5.G: describe how factors or conditions can cause objects, organisms, and systems to either change or stay the same
- 112.4.b.11: Earth and space. The student knows that earth materials and products made from these materials are important to everyday life. The student is expected to:
 - 112.4.b.11.B: describe how human impact can be limited by making choices to conserve and properly dispose of materials such as reducing use of, reusing, or recycling paper, plastic, and metal

Social Studies

- Kindergarten:
 - 113.11.c.14: Social studies skills. The student communicates in oral and visual forms. The student is expected to:
 - 113.11.c.14.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
- 1st Grade:
 - 113.12.c.17: Social studies skills. The student communicates in oral, visual, and written forms. The student is expected to:
 - 113.12.c.17.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
- 2nd Grade:
 - 113.13.c.16: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
 - 113.13.c.16.E: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;

PANCAKES!

English Language Arts

- Kindergarten:
 - 110.2.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:



- 110.2.b.1.C: share information and ideas by speaking audibly and clearly using the conventions of language
 - 110.2.b.5: Comprehension skills: listening, speaking, reading, writing, and thinking using multiple texts. The student uses metacognitive skills to both develop and deepen comprehension of increasingly complex texts. The student is expected to:
 - 110.2.b.5.G: evaluate details to determine what is most important with adult assistance
 - 110.2.b.7: Multiple genres: listening, speaking, reading, writing, and thinking using multiple texts--literary elements. The student recognizes and analyzes literary elements within and across increasingly complex traditional, contemporary, classical, and diverse literary texts. The student is expected to:
 - 110.2.b.7.A: discuss topics and determine the basic theme using text evidence with adult assistance
 - 110.2.b.8: Multiple genres: listening, speaking, reading, writing, and thinking using multiple texts--genres. The student recognizes and analyzes genre-specific characteristics, structures, and purposes within and across increasingly complex traditional, contemporary, classical, and diverse texts. The student is expected to:
 - 110.2.b.8.D: recognize characteristics and structures of informational text, including:
 - 110.2.b.8.D.iii: recognize characteristics and structures of informational text, including: the steps in a sequence with adult assistance
- 1st Grade:
 - 110.3.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.3.b.1.C: share information and ideas about the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language
 - 110.3.b.6: Comprehension skills: listening, speaking, reading, writing, and thinking using multiple texts. The student uses metacognitive skills to both develop and deepen comprehension of increasingly complex texts. The student is expected to:
 - 110.3.b.6.G: evaluate details to determine what is most important with adult assistance
 - 110.3.b.8: Multiple genres: listening, speaking, reading, writing, and thinking using multiple texts--literary elements. The student recognizes and analyzes literary elements within and across increasingly complex traditional, contemporary, classical, and diverse literary texts. The student is expected to:



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- 110.3.b.8.A: discuss topics and determine theme using text evidence with adult assistance
- 2nd Grade:
 - 110.4.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.4.b.1.C: share information and ideas that focus on the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language
 - 110.4.b.6: Comprehension skills: listening, speaking, reading, writing, and thinking using multiple texts. The student uses metacognitive skills to both develop and deepen comprehension of increasingly complex texts. The student is expected to:
 - 110.4.b.6.G: evaluate details read to determine key ideas
 - 110.4.b.8: Multiple genres: listening, speaking, reading, writing, and thinking using multiple texts--literary elements. The student recognizes and analyzes literary elements within and across increasingly complex traditional, contemporary, classical, and diverse literary texts. The student is expected to:
 - 110.4.b.8.A: discuss topics and determine theme using text evidence with adult assistance

Science

- 2nd Grade:
 - 112.4.b.6: Matter and its properties. The student knows that matter has physical properties that determine how it is described, classified, and used. The student is expected to:
 - 112.4.b.6.B: conduct a descriptive investigation to explain how physical properties can be changed through processes such as cutting, folding, sanding, melting, or freezing
 - 112.4.b.13: Organisms and environments. The student knows that organisms have structures and undergo processes that help them interact and survive within their environments. The student is expected to:
 - 112.4.b.13.A: identify the roots, stems, leaves, flowers, fruits, and seeds of plants and compare how those structures help different plants meet their basic needs for survival

Social Studies

- Kindergarten:
 - 113.11.c.13: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including technology. The student is expected to:



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- 113.11.c.13.D: sequence and categorize information.
- 113.11.c.14: Social studies skills. The student communicates in oral and visual forms. The student is expected to:
 - 113.11.c.14.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
- 1st Grade:
 - 113.12.c.16: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including technology. The student is expected to:
 - 113.12.c.16.D: sequence and categorize information;
 - 113.12.c.17: Social studies skills. The student communicates in oral, visual, and written forms. The student is expected to:
 - 113.12.c.17.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
- 2nd Grade:
 - 113.13.c.15: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including technology. The student is expected to:
 - 113.13.c.15.D: interpret oral, visual, and print material by sequencing, categorizing, identifying the main idea, predicting, comparing, and contrasting.
 - 113.13.c.16: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
 - 113.13.c.16.E: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;

PEOPLE AND PLANTS NEED NUTRIENTS

English Language Arts

- Kindergarten:
 - 110.2.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.2.b.1.A: listen actively and ask questions to understand information and answer questions using multi-word responses;
 - 110.2.b.1.C: share information and ideas by speaking audibly and clearly using the conventions of language;



- 110.2.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including taking turns;
- 110.2.b.6: Response skills: listening, speaking, reading, writing, and thinking using multiple texts. The student responds to an increasingly challenging variety of sources that are read, heard, or viewed. The student is expected to:
 - 110.2.b.6.C: use text evidence to support an appropriate response;
 - 110.2.b.6.E: interact with sources in meaningful ways such as illustrating or writing;
 - 110.2.b.6.F: respond using newly acquired vocabulary as appropriate.
- 110.2.b.12: Inquiry and research: listening, speaking, reading, writing, and thinking using multiple texts. The student engages in both short-term and sustained recursive inquiry processes for a variety of purposes. The student is expected to:
 - 110.2.b.12.D: demonstrate understanding of information gathered with adult assistance;
- 1st Grade:
 - 110.3.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.3.b.1.A: listen actively, ask relevant questions to clarify information, and answer questions using multi-word responses;
 - 110.3.b.1.C: share information and ideas about the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language;
 - 110.3.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including listening to others, speaking when recognized, and making appropriate contributions;
 - 110.3.b.7: Response skills: listening, speaking, reading, writing, and thinking using multiple texts. The student responds to an increasingly challenging variety of sources that are read, heard, or viewed. The student is expected to:
 - 110.3.b.7.C: use text evidence to support an appropriate response;
 - 110.3.b.7.E: interact with sources in meaningful ways such as illustrating or writing;



- 110.3.b.7.F: respond using newly acquired vocabulary as appropriate.
- 110.3.b.13: Inquiry and research: listening, speaking, reading, writing, and thinking using multiple texts. The student engages in both short-term and sustained recursive inquiry processes for a variety of purposes. The student is expected to:
 - 110.3.b.13.D: demonstrate understanding of information gathered with adult assistance;
- 2nd Grade:
 - 110.4.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.4.b.1.A: listen actively, ask relevant questions to clarify information, and answer questions using multi-word responses;
 - 110.4.b.1.C: share information and ideas that focus on the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language;
 - 110.4.B.1.D: work collaboratively with others by following agreed-upon rules for discussion, including listening to others, speaking when recognized, making appropriate contributions, and building on the ideas of others;
 - 110.4.b.7: Response skills: listening, speaking, reading, writing, and thinking using multiple texts. The student responds to an increasingly challenging variety of sources that are read, heard, or viewed. The student is expected to:
 - 110.4.b.7.C: use text evidence to support an appropriate response;
 - 110.4.b.7.E: interact with sources in meaningful ways such as illustrating or writing;
 - 110.4.b.7.F: respond using newly acquired vocabulary as appropriate.
 - 110.4.b.13: Inquiry and research: listening, speaking, reading, writing, and thinking using multiple texts. The student engages in both short-term and sustained recursive inquiry processes for a variety of purposes. The student is expected to:
 - 110.4.b.13.E: demonstrate understanding of information gathered;

Science

- Kindergarten:



- 112.2.b.2: Scientific and engineering practices. The student analyzes and interprets data to derive meaning, identify features and patterns, and discover relationships or correlations to develop evidence-based arguments or evaluate designs. The student is expected to:
 - 112.2.b.2.B: analyze data by identifying significant features and patterns
- 112.2.b.12: Organisms and environments. The student knows that plants and animals depend on the environment to meet their basic needs for survival. The student is expected to:
 - 112.2.b.12.A: observe and identify the dependence of plants on air, sunlight, water, nutrients in the soil, and space to grow; and
- 112.2.b.13: Organisms and environments. The student knows that organisms resemble their parents and have structures and undergo processes that help them interact and survive within their environments. The student is expected to:
 - 112.2.b.13.A: identify the structures of plants, including roots, stems, leaves, flowers, and fruits;
- o 1st Grade:
 - 112.3.b.2: Scientific and engineering practices. The student analyzes and interprets data to derive meaning, identify features and patterns, and discover relationships or correlations to develop evidence-based arguments or evaluate designs. The student is expected to:
 - 112.3.b.2.B: analyze data by identifying significant features and patterns
 - 112.3.b.11: Earth and space. The student knows that earth materials and products made from these materials are important to everyday life. The student is expected to:
 - 112.3.b.11.A: identify and describe how plants, animals, and humans use rocks, soil, and water
- o 2nd Grade:
 - 112.4.b.12: Organisms and environments. The student knows that living organisms have basic needs that must be met through interactions within their environment. The student is expected to:
 - 112.4.b.2.B: analyze data by identifying significant features and patterns
 - 112.4.b.13: Organisms and environments. The student knows that organisms have structures and undergo processes that help



them interact and survive within their environments. The student is expected to:

- 112.4.b.13.A: identify the roots, stems, leaves, flowers, fruits, and seeds of plants and compare how those structures help different plants meet their basic needs for survival

Social Studies

- Kindergarten:
 - 113.11.c.14: Social studies skills. The student communicates in oral and visual forms. The student is expected to:
 - 113.11.c.14.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
 - 113.11.c.14.D: create and interpret visuals, including pictures and maps;
- 1st Grade:
 - 113.12.c.17: Social studies skills. The student communicates in oral, visual, and written forms. The student is expected to:
 - 113.12.c.17.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
 - 113.12.c.17.D: create and interpret visual and written material;
- 2nd Grade:
 - 113.13.c.16: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
 - 113.13.c.16.E: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
 - 113.13.c.16.F: create written and visual material such as stories, maps, and graphic organizers to express ideas;

PHOTOSYNTHESIS AND YOU

English Language Arts

- Kindergarten:
 - 110.2.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.2.b.1.C: share information and ideas by speaking audibly and clearly using the conventions of language
 - 110.2.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including taking turns



- 1st Grade:
 - 110.3.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.3.b.1.C: share information and ideas about the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language
 - 110.3.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including listening to others, speaking when recognized, and making appropriate contributions
- 2nd Grade:
 - 110.4.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.4.b.1.C: share information and ideas that focus on the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language
 - 110.4.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including listening to others, speaking when recognized, making appropriate contributions, and building on the ideas of others

Science

- Kindergarten:
 - 112.2.b.1: Scientific and engineering practices. The student asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:
 - 112.2.b.1.B: use scientific practices to plan and conduct simple descriptive investigations and use engineering practices to design solutions to problems
 - 112.2.b.1.E: collect observations and measurements as evidence
 - 112.2.b.1.F: record and organize data using pictures, numbers, words, symbols, and simple graphs
 - 112.2.b.12: Organisms and Environments: The student knows that plants and animals depend on the environment to meet their basic needs for survival. The student is expected to:
 - 112.2.b.12.A: observe and identify the dependence of plants on air, sunlight, water, nutrients in the soil, and space to grow



- 112.2.b.13: Organisms and Environments: The student knows that organisms resemble their parents and have structures and undergo processes that help them interact and survive within their environments. The student is expected to:
 - 112.2.b.13.A: identify the structures of plants, including roots, stems, leaves, flowers, and fruits
- 1st Grade:
 - 112.3.b.1: Scientific and engineering practices. The student asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:
 - 112.3.b.1.B: use scientific practices to plan and conduct simple descriptive investigations and use engineering practices to design solutions to problems
 - 112.3.b.1.E: collect observations and measurements as evidence
 - 112.3.b.1.F: record and organize data using pictures, numbers, words, symbols, and simple graphs
 - 112.3.b.11: Organisms and Environments: The student knows that earth materials and products made from these materials are important to everyday life. The student is expected to:
 - 112.3.b.11.A: identify and describe how plants, animals, and humans use rocks, soil, and water
- 2nd Grade:
 - 112.4.b.1: Scientific and engineering practices. The student asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:
 - 112.4.b.1.B: use scientific practices to plan and conduct simple descriptive investigations and use engineering practices to design solutions to problems
 - 112.4.b.1.E: collect observations and measurements as evidence
 - 112.4.b.1.F: record and organize data using pictures, numbers, words, symbols, and simple graphs
 - 112.4.b.12: Organisms and Environments: The student describes patterns, cycles, systems, and relationships within environments. The student is expected to:
 - 112.4.b.12.A: describe how the physical characteristics of environments, including the amount of rainfall, support plants and animals within an ecosystem



Social Studies

- Kindergarten:
 - 113.11.c.14: Social studies skills. The student communicates in oral and visual forms. The student is expected to:
 - 113.11.c.14.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
- 1st Grade:
 - 113.12.c.17: Social studies skills. The student communicates in oral, visual, and written forms. The student is expected to:
 - 113.12.c.17.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
- 2nd Grade:
 - 113.13.c.16: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
 - 113.13.c.16.E: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;

PIGS ON THE FARM

English Language Arts

- Kindergarten:
 - 110.2.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.2.b.1.C: share information and ideas by speaking audibly and clearly using the conventions of language
 - 110.2.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including taking turns
- 1st Grade:
 - 110.3.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.3.b.1.C: share information and ideas about the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language
 - 110.3.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including listening to others, speaking when recognized, and making appropriate contributions



- 2nd Grade:
 - 110.4.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.4.b.1.C: share information and ideas that focus on the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language
 - 110.4.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including listening to others, speaking when recognized, making appropriate contributions, and building on the ideas of others

Science

- Kindergarten:
 - 112.2.b.1: Scientific and engineering practices. The student asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:
 - 112.2.b.1.A: ask questions and define problems based on observations or information from text, phenomena, models, or investigations
 - 112.2.b.1.G: develop and use models to represent phenomena, objects, and processes or design a prototype for a solution to a problem
 - 112.2.b.2: Scientific and engineering practices. The student analyzes and interprets data to derive meaning, identify features and patterns, and discover relationships or correlations to develop evidence-based arguments or evaluate designs. The student is expected to:
 - 112.2.b.2.A: identify basic advantages and limitations of models such as their size, properties, and materials
 - 112.2.b.2.B: analyze data by identifying significant features and patterns
 - 112.2.b.2.C: use mathematical concepts to compare two objects with common attributes
 - 112.2.b.2.D: evaluate a design or object using criteria to determine if it works as intended
 - 112.2.b.4: Scientific and engineering practices. The student knows the contributions of scientists and recognizes the importance of scientific research and innovation on society. The student is expected to:
 - 112.2.b.4.A: explain how science or an innovation can help others



- 112.2.b.5: Recurring Themes and Concepts. The student uses recurring themes and concepts to make connections across disciplines. The student is expected to:
 - 112.2.b.5.A: identify and use patterns to describe phenomena or design solutions
 - 112.2.b.5.C: describe the properties of objects in terms of relative size (scale) and relative quantity
 - 112.2.b.5.D: examine the parts of a whole to define or model a system
- 112.2.b.11: Earth and space. The student knows that earth materials are important to everyday life. The student is expected to observe and generate examples of practical uses for rocks, soil, and water
- 112.2.b.12: Organisms and Environments: The student knows that plants and animals depend on the environment to meet their basic needs for survival. The student is expected to:
 - 112.2.b.12.B: observe and identify the dependence of animals on air, water, food, space, and shelter
- 1st Grade:
 - 112.3.b.1: Scientific and engineering practices. The student asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:
 - 112.3.b.1.A: ask questions and define problems based on observations or information from text, phenomena, models, or investigations
 - 112.3.b.1.G: develop and use models to represent phenomena, objects, and processes or design a prototype for a solution to a problem
 - 112.3.b.2: Scientific and engineering practices. The student analyzes and interprets data to derive meaning, identify features and patterns, and discover relationships or correlations to develop evidence-based arguments or evaluate designs. The student is expected to:
 - 112.3.b.2.A: identify basic advantages and limitations of models such as their size, properties, and materials
 - 112.3.b.2.B: analyze data by identifying significant features and patterns
 - 112.3.b.2.C: use mathematical concepts to compare two objects with common attributes
 - 112.3.b.4: Scientific and engineering practices. The student knows the contributions of scientists and recognizes the



importance of scientific research and innovation on society. The student is expected to:

- 112.3.b.4.A: explain how science or an innovation can help others
- 112.3.b.5: Recurring Themes and Concepts. The student uses recurring themes and concepts to make connections across disciplines. The student is expected to:
 - 112.3.b.5.A: identify and use patterns to describe phenomena or design solutions
 - 112.3.b.5.C: describe the properties of objects in terms of relative size (scale) and relative quantity
 - 112.3.b.5.D: examine the parts of a whole to define or model a system
- 112.3.b.13: Organisms and Environments: The student knows that organisms resemble their parents and have structures and undergo processes that help them interact and survive within their environments. The student is expected to:
 - 112.3.b.13.A: identify the external structures of different animals and compare how those structures help different animals live, move, and meet basic needs for survival
- 2nd Grade:
 - 112.4.b.1: Scientific and engineering practices. The student asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:
 - 112.4.b.1.A: ask questions and define problems based on observations or information from text, phenomena, models, or investigations
 - 112.4.b.1.G: develop and use models to represent phenomena, objects, and processes or design a prototype for a solution to a problem
 - 112.4.b.2: Scientific and engineering practices. The student analyzes and interprets data to derive meaning, identify features and patterns, and discover relationships or correlations to develop evidence-based arguments or evaluate designs. The student is expected to:
 - 112.4.b.2.A: identify basic advantages and limitations of models such as their size, properties, and materials
 - 112.4.b.2.B: analyze data by identifying significant features and patterns
 - 112.4.b.2.C: use mathematical concepts to compare two objects with common attributes



- 112.4.b.4: Scientific and engineering practices. The student knows the contributions of scientists and recognizes the importance of scientific research and innovation on society. The student is expected to:
 - 112.4.b.4.A: explain how science or an innovation can help others
- 112.4.b.5: Recurring Themes and Concepts. The student uses recurring themes and concepts to make connections across disciplines. The student is expected to:
 - 112.4.b.5.A: identify and use patterns to describe phenomena or design solutions
 - 112.4.b.5.C: measure and describe the properties of objects in terms of size and quantity
 - 112.4.b.5.D: examine the parts of a whole to define or model a system
- 112.4.b.11: Earth and space. The student knows that earth materials and products made from these materials are important to everyday life. The student is expected to:
 - 112.4.b.11.A: distinguish between natural and manmade resources
- 112.4.b.13: Organisms and Environments: The student knows that organisms resemble their parents and have structures and undergo processes that help them interact and survive within their environments. The student is expected to:
 - 112.4.b.13.B: record and compare how the structures and behaviors of animals help them find and take in food, water, and air

Social Studies

- Kindergarten:
 - 113.11.c.5: Economics. The student understands the difference between human needs and wants and how they are met. The student is expected to:
 - 113.11.b.5.A: identify basic human needs of food, clothing, and shelter
 - 113.11.b.5.C: explain how basic human needs and wants can be met
 - 113.11.c.14: Social studies skills. The student communicates in oral and visual forms. The student is expected to:
 - 113.11.c.14.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
 - 113.11.c.14.D: create and interpret visuals, including pictures and maps;



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- 1st Grade:
 - 113.12.c.17: Social studies skills. The student communicates in oral, visual, and written forms. The student is expected to:
 - 113.12.c.17.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
 - 113.12.c.17.D: create and interpret visual and written material;
- 2nd Grade:
 - 113.13.c.16: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
 - 113.13.c.16.E: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
 - 113.13.c.16.F: create written and visual material such as stories, maps, and graphic organizers to express ideas;

PLANT TOPS AND BOTTOMS

English Language Arts

- Kindergarten:
 - 110.2.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.2.b.1.C: share information and ideas by speaking audibly and clearly using the conventions of language
 - 110.2.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including taking turns
 - 110.2.b.6: Response skills: listening, speaking, reading, writing, and thinking using multiple texts. The student responds to an increasingly challenging variety of sources that are read, heard, or viewed. The student is expected to:
 - 110.2.b.6.F: respond using newly acquired vocabulary as appropriate.
- 1st Grade:
 - 110.3.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:



- 110.3.b.1.C: share information and ideas about the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language
- 110.3.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including listening to others, speaking when recognized, and making appropriate contributions
- 110.3.b.7: Response skills: listening, speaking, reading, writing, and thinking using multiple texts. The student responds to an increasingly challenging variety of sources that are read, heard, or viewed. The student is expected to:
 - 110.3.b.7.F: respond using newly acquired vocabulary as appropriate.
- 2nd Grade:
 - 110.4.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.4.b.1.C: share information and ideas that focus on the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language
 - 110.4.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including listening to others, speaking when recognized, making appropriate contributions, and building on the ideas of others
 - 110.4.b.7: Response skills: listening, speaking, reading, writing, and thinking using multiple texts. The student responds to an increasingly challenging variety of sources that are read, heard, or viewed. The student is expected to:
 - 110.4.b.7.F: respond using newly acquired vocabulary as appropriate.

Science

- Kindergarten:
 - 112.2.b.1: Scientific and engineering practices. The student asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:
 - 112.2.b.1.F: record and organize data using pictures, numbers, words, symbols, and simple graphs
 - 112.2.b.5: Recurring Themes and Concepts. The student uses recurring themes and concepts to make connections across disciplines. The student is expected to:



- 112.2.b.5.A: identify and use patterns to describe phenomena or design solutions
 - 112.2.b.5.F: describe the relationship between the structure and function of objects, organisms, and systems
 - 112.2.b.12: Organisms and Environments: The student knows that plants and animals depend on the environment to meet their basic needs for survival. The student is expected to:
 - 112.2.b.12.A: observe and identify the dependence of plants on air, sunlight, water, nutrients in the soil, and space to grow
 - 112.2.b.13: Organisms and Environments: The student knows that organisms resemble their parents and have structures and undergo processes that help them interact and survive within their environments. The student is expected to:
 - 112.2.b.13.A: identify the structures of plants, including roots, stems, leaves, flowers, and fruits
- 1st Grade:
 - 112.3.b.1: Scientific and engineering practices. The student asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:
 - 112.3.b.1.F: record and organize data using pictures, numbers, words, symbols, and simple graphs
 - 112.3.b.5: Recurring Themes and Concepts. The student uses recurring themes and concepts to make connections across disciplines. The student is expected to:
 - 112.3.b.5.A: identify and use patterns to describe phenomena or design solutions
 - 112.3.b.5.F: describe the relationship between the structure and function of objects, organisms, and systems
 - 112.3.b.11: Organisms and Environments: The student knows that earth materials and products made from these materials are important to everyday life. The student is expected to:
 - 112.2.b.11.A: identify and describe how plants, animals, and humans use rocks, soil, and water
 - 112.3.b.13: Organisms and Environments: The student knows that organisms resemble their parents and have structures and undergo processes that help them interact and survive within their environments. The student is expected to:
 - 112.3.b.13.A: identify the external structures of different animals and compare how those structures help different animals live, move, and meet basic needs for survival



- 2nd Grade:
 - 112.4.b.1: Scientific and engineering practices. The student asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:
 - 112.4.b.1.F: record and organize data using pictures, numbers, words, symbols, and simple graphs
 - 112.4.b.5: Recurring Themes and Concepts. The student uses recurring themes and concepts to make connections across disciplines. The student is expected to:
 - 112.4.b.5.A: identify and use patterns to describe phenomena or design solutions
 - 112.4.b.5.F: describe the relationship between the structure and function of objects, organisms, and systems
 - 112.4.b.13: Organisms and Environments: The student knows that organisms resemble their parents and have structures and undergo processes that help them interact and survive within their environments. The student is expected to:
 - 112.4.b.13.A: identify the roots, stems, leaves, flowers, fruits, and seeds of plants and compare how those structures help different plants meet their basic needs for survival

Social Studies

- Kindergarten:
 - 113.11.c.5: Economics. The student understands the difference between human needs and wants and how they are met. The student is expected to:
 - 113.11.b.5.A: identify basic human needs of food, clothing, and shelter
 - 113.11.b.5.C: explain how basic human needs and wants can be met
 - 113.11.c.13: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including technology. The student is expected to:
 - 113.11.c.13.D: sequence and categorize information.
 - 113.11.c.14: Social studies skills. The student communicates in oral and visual forms. The student is expected to:
 - 113.11.c.14.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;



- 1st Grade:
 - 113.12.c.16: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including technology. The student is expected to:
 - 113.12.c.16.D: sequence and categorize information.
 - 113.12.c.17: Social studies skills. The student communicates in oral, visual, and written forms. The student is expected to:
 - 113.12.c.17.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
- 2nd Grade:
 - 113.13.c.15: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including technology. The student is expected to:
 - 113.13.c.15.D: interpret oral, visual, and print material by sequencing, categorizing, identifying the main idea, predicting, comparing, and contrasting;
 - 113.13.c.16: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
 - 113.13.c.16.E: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;

POTATOES: MORE THAN FRIES

English Language Arts

- Kindergarten:
 - 110.2.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.2.b.1.C: share information and ideas by speaking audibly and clearly using the conventions of language
 - 110.2.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including taking turns
 - 110.2.b.6: Response skills: listening, speaking, reading, writing, and thinking using multiple texts. The student responds to an increasingly challenging variety of sources that are read, heard, or viewed. The student is expected to:
 - 110.2.b.6.F: respond using newly acquired vocabulary as appropriate.



- 110.2.b.8: Multiple genres: listening, speaking, reading, writing, and thinking using multiple texts--genres. The student recognizes and analyzes genre-specific characteristics, structures, and purposes within and across increasingly complex traditional, contemporary, classical, and diverse texts. The student is expected to:
 - 110.2.b.8.B: discuss rhyme and rhythm in nursery rhymes and a variety of poems;
- 1st Grade:
 - 110.3.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.3.b.1.C: share information and ideas about the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language
 - 110.3.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including listening to others, speaking when recognized, and making appropriate contributions
 - 110.3.b.12: Composition: listening, speaking, reading, writing, and thinking using multiple texts--genres. The student uses genre characteristics and craft to compose multiple texts that are meaningful. The student is expected to:
 - 110.3.b.12.A: dictate or compose literary texts, including personal narratives and poetry;
 - 110.3.b.7: Response skills: listening, speaking, reading, writing, and thinking using multiple texts. The student responds to an increasingly challenging variety of sources that are read, heard, or viewed. The student is expected to:
 - 110.3.b.7.F: respond using newly acquired vocabulary as appropriate.
- 2nd Grade:
 - 110.4.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.4.b.1.C: share information and ideas that focus on the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language
 - 110.4.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including listening to others, speaking when recognized, making appropriate contributions, and building on the ideas of others



- 110.4.b.12: Composition: listening, speaking, reading, writing, and thinking using multiple texts--genres. The student uses genre characteristics and craft to compose multiple texts that are meaningful. The student is expected to:
 - 110.4.b.12.A: compose literary texts, including personal narratives and poetry;
- 110.4.b.7: Response skills: listening, speaking, reading, writing, and thinking using multiple texts. The student responds to an increasingly challenging variety of sources that are read, heard, or viewed. The student is expected to:
 - 110.4.b.7.F: respond using newly acquired vocabulary as appropriate.

Science

- Kindergarten:
 - 112.2.b.1: Scientific and engineering practices. The student asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:
 - 112.2.b.1.A: ask questions and define problems based on observations or information from text, phenomena, models, or investigations
 - 112.2.b.1.B: use scientific practices to plan and conduct simple descriptive investigations and use engineering practices to design solutions to problems
 - 112.2.b.1.E: collect observations and measurements as evidence
 - 112.2.b.1.F: record and organize data using pictures, numbers, words, symbols, and simple graphs
 - 112.2.b.1.G: develop and use models to represent phenomena, objects, and processes or design a prototype for a solution to a problem
 - 112.2.b.3: Scientific and engineering practices. The student develops evidence-based explanations and communicates findings, conclusions, and proposed solutions. The student is expected to:
 - 112.2.b.3.A: develop explanations and propose solutions supported by data and models
 - 112.2.b.3.B: communicate explanations and solutions individually and collaboratively in a variety of settings and formats
 - 112.2.b.3.C: listen actively to others' explanations to identify important evidence and engage respectfully in scientific discussion



- 112.2.b.5: Recurring Themes and Concepts. The student uses recurring themes and concepts to make connections across disciplines. The student is expected to:
 - 112.2.b.5.A: identify and use patterns to describe phenomena or design solutions
- 112.2.b.12: Organisms and Environments: The student knows that plants and animals depend on the environment to meet their basic needs for survival. The student is expected to:
 - 112.2.b.12.A: observe and identify the dependence of plants on air, sunlight, water, nutrients in the soil, and space to grow
- 112.2.b.13: Organisms and Environments: The student knows that organisms resemble their parents and have structures and undergo processes that help them interact and survive within their environments. The student is expected to:
 - 112.2.b.13.C: identify and record the changes from seed, seedling, plant, flower, and fruit in a simple plant life cycle
 - 112.2.b.13.D: identify ways that young plants resemble the parent plant
- 1st Grade:
 - 112.3.b.1: Scientific and engineering practices. The student asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:
 - 112.3.b.1.A: ask questions and define problems based on observations or information from text, phenomena, models, or investigations
 - 112.3.b.1.B: use scientific practices to plan and conduct simple descriptive investigations and use engineering practices to design solutions to problems
 - 112.3.b.1.E: collect observations and measurements as evidence
 - 112.3.b.1.F: record and organize data using pictures, numbers, words, symbols, and simple graphs
 - 112.3.b.1.G: develop and use models to represent phenomena, objects, and processes or design a prototype for a solution to a problem
 - 112.3.b.3: Scientific and engineering practices. The student develops evidence-based explanations and communicates findings, conclusions, and proposed solutions. The student is expected to:



- 112.3.b.3.A: develop explanations and propose solutions supported by data and models
- 112.3.b.3.B: communicate explanations and solutions individually and collaboratively in a variety of settings and formats
- 112.3.b.3.C: listen actively to others' explanations to identify important evidence and engage respectfully in scientific discussion
- 112.3.b.5: Recurring Themes and Concepts. The student uses recurring themes and concepts to make connections across disciplines. The student is expected to:
 - 112.3.b.5.A: identify and use patterns to describe phenomena or design solutions
- 112.3.b.8: Force, Motion, and Energy: The student knows that energy is everywhere and can be observed in everyday life. The student is expected to:
 - 112.3.b.8.A: investigate and describe applications of heat in everyday life such as cooking food or using a clothes dryer
- 112.3.b.12: Organisms and Environments: The student knows that the environment is composed of relationships between living organisms and nonliving components. The student is expected to:
 - 112.3.b.12.A: classify living and nonliving things based upon whether they have basic needs and produce young
 - 112.3.b.12.C: identify and illustrate how living organisms depend on each other through food chains
- 2nd Grade:
 - 112.4.b.1: Scientific and engineering practices. The student asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:
 - 112.4.b.1.A: ask questions and define problems based on observations or information from text, phenomena, models, or investigations
 - 112.4.b.1.B: use scientific practices to plan and conduct simple descriptive investigations and use engineering practices to design solutions to problems
 - 112.4.b.1.E: collect observations and measurements as evidence
 - 112.4.b.1.F: record and organize data using pictures, numbers, words, symbols, and simple graphs



- 112.4.b.1.G: develop and use models to represent phenomena, objects, and processes or design a prototype for a solution to a problem
- 112.4.b.3: Scientific and engineering practices. The student develops evidence-based explanations and communicates findings, conclusions, and proposed solutions. The student is expected to:
 - 112.4.b.3.A: develop explanations and propose solutions supported by data and models
 - 112.4.b.3.B: communicate explanations and solutions individually and collaboratively in a variety of settings and formats
 - 112.4.b.3.C: listen actively to others' explanations to identify important evidence and engage respectfully in scientific discussion
- 112.4.b.5: Recurring Themes and Concepts. The student uses recurring themes and concepts to make connections across disciplines. The student is expected to:
 - 112.4.b.5.A: identify and use patterns to describe phenomena or design solutions
- 112.4.b.12: Organisms and Environments: The student describes patterns, cycles, systems, and relationships within environments. The student is expected to:
 - 112.4.b.12.A: describe how the physical characteristics of environments, including the amount of rainfall, support plants and animals within an ecosystem
 - 112.4.b.12.C: explain and demonstrate how some plants depend on other living things, wind, or water for pollination and to move their seeds around
- 112.4.b.13: Organisms and Environments: The student knows that organisms resemble their parents and have structures and undergo processes that help them interact and survive within their environments. The student is expected to:
 - 112.4.b.13.A: identify the roots, stems, leaves, flowers, fruits, and seeds of plants and compare how those structures help different plants meet their basic needs for survival

Social Studies

- Kindergarten:
 - 113.11.c.5: Economics. The student understands the difference between human needs and wants and how they are met. The student is expected to:



- 113.11.b.5.A: identify basic human needs of food, clothing, and shelter
- 113.11.b.5.C: explain how basic human needs and wants can be met
- 113.11.c.13: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including technology. The student is expected to:
 - 113.11.c.13.D: sequence and categorize information.
- 113.11.c.14: Social studies skills. The student communicates in oral and visual forms. The student is expected to:
 - 113.11.c.14.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
- 1st Grade:
 - 113.12.c.16: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including technology. The student is expected to:
 - 113.12.c.16.D: sequence and categorize information.
 - 113.12.c.17: Social studies skills. The student communicates in oral, visual, and written forms. The student is expected to:
 - 113.12.c.17.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
- 2nd Grade:
 - 113.13.c.15: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including technology. The student is expected to:
 - 113.13.c.15.D: interpret oral, visual, and print material by sequencing, categorizing, identifying the main idea, predicting, comparing, and contrasting;
 - 113.13.c.16: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
 - 113.13.c.16.E: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;

PUMPKINS...NOT JUST FOR HALLOWEEN

English Language Arts

- Kindergarten:



- 110.2.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.2.b.1.C: share information and ideas by speaking audibly and clearly using the conventions of language
 - 110.2.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including taking turns
- 110.2.b.5: Comprehension skills: listening, speaking, reading, writing, and thinking using multiple texts. The student uses metacognitive skills to both develop and deepen comprehension of increasingly complex texts. The student is expected to:
 - 110.2.b.5.G: evaluate details to determine what is most important with adult assistance
- 110.2.b.6: Response skills: listening, speaking, reading, writing, and thinking using multiple texts. The student responds to an increasingly challenging variety of sources that are read, heard, or viewed. The student is expected to:
 - 110.2.b.6.E: interact with sources in meaningful ways such as illustrating or writing
- 1st Grade:
 - 110.3.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.3.b.1.C: share information and ideas about the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language
 - 110.3.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including listening to others, speaking when recognized, and making appropriate contributions
 - 110.3.b.6: Comprehension skills: listening, speaking, reading, writing, and thinking using multiple texts. The student uses metacognitive skills to both develop and deepen comprehension of increasingly complex texts. The student is expected to:
 - 110.3.b.6.G: evaluate details to determine what is most important with adult assistance
 - 110.3.b.7: Response skills: listening, speaking, reading, writing, and thinking using multiple texts. The student responds to an increasingly challenging variety of sources that are read, heard, or viewed. The student is expected to:
 - 110.3.b.7.E: interact with sources in meaningful ways such as illustrating or writing
- 2nd Grade:



- 110.4.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.4.b.1.C: share information and ideas that focus on the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language
 - 110.4.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including listening to others, speaking when recognized, making appropriate contributions, and building on the ideas of others
- 110.4.b.6: Comprehension skills: listening, speaking, reading, writing, and thinking using multiple texts. The student uses metacognitive skills to both develop and deepen comprehension of increasingly complex texts. The student is expected to:
 - 110.4.b.6.G: evaluate details read to determine key ideas
- 110.4.b.7: Response skills: listening, speaking, reading, writing, and thinking using multiple texts. The student responds to an increasingly challenging variety of sources that are read, heard, or viewed. The student is expected to:
 - 110.4.b.7.E: interact with sources in meaningful ways such as illustrating or writing

Math

- Kindergarten:
 - 111.2.b.1: Mathematical process standards. The student uses mathematical processes to acquire and demonstrate mathematical understanding. The student is expected to:
 - 111.2.b.1.A: apply mathematics to problems arising in everyday life, society, and the workplace;
 - 111.2.b.1.C: select tools, including real objects, manipulatives, paper and pencil, and technology as appropriate, and techniques, including mental math, estimation, and number sense as appropriate, to solve problems;
 - 111.2.b.2: Number and operations. The student applies mathematical process standards to understand how to represent and compare whole numbers, the relative position and magnitude of whole numbers, and relationships within the numeration system. The student is expected to:
 - 111.2.b.2.A: count forward and backward to at least 20 with and without objects;
 - 111.2.b.2.B: read, write, and represent whole numbers from 0 to at least 20 with and without objects or pictures;
 - 111.2.b.2.C: count a set of objects up to at least 20 and demonstrate that the last number said tells the number of



objects in the set regardless of their arrangement or order;

- 111.2.b.3: Number and operations. The student applies mathematical process standards to develop an understanding of addition and subtraction situations in order to solve problems. The student is expected to:
 - 111.2.b.3.A: model the action of joining to represent addition and the action of separating to represent subtraction;
- 111.2.b.7: Geometry and measurement. The student applies mathematical process standards to directly compare measurable attributes. The student is expected to:
 - 111.2.b.7.A: give an example of a measurable attribute of a given object, including length, capacity, and weight; and
 - 111.2.b.7.B: compare two objects with a common measurable attribute to see which object has more of/less of the attribute and describe the difference.
- 1st Grade:
 - 111.3.b.1: Mathematical process standards. The student uses mathematical processes to acquire and demonstrate mathematical understanding. The student is expected to:
 - 111.3.b.1.A: apply mathematics to problems arising in everyday life, society, and the workplace;
 - 111.3.b.1.C: select tools, including real objects, manipulatives, paper and pencil, and technology as appropriate, and techniques, including mental math, estimation, and number sense as appropriate, to solve problems;
 - 111.3.b.2: Number and operations. The student applies mathematical process standards to represent and compare whole numbers, the relative position and magnitude of whole numbers, and relationships within the numeration system related to place value. The student is expected to:
 - 111.3.b.2.B: use concrete and pictorial models to compose and decompose numbers up to 120 in more than one way as so many hundreds, so many tens, and so many ones;
 - 111.3.b.2.C: use objects, pictures, and expanded and standard forms to represent numbers up to 120;
 - 111.3.b.3: Number and operations. The student applies mathematical process standards to develop and use strategies for whole number addition and subtraction computations in order to solve problems. The student is expected to:



- 111.3.b.3.A: use concrete and pictorial models to determine the sum of a multiple of 10 and a one-digit number in problems up to 99;
- 111.3.b.3.D: apply basic fact strategies to add and subtract within 20, including making 10 and decomposing a number leading to a 10;
- 111.3.b.7: Geometry and measurement. The student applies mathematical process standards to select and use units to describe length and time. The student is expected to:
 - 111.3.b.7.A: use measuring tools to measure the length of objects to reinforce the continuous nature of linear measurement;
 - 111.3.b.7.D: describe a length to the nearest whole unit using a number and a unit; and
- 111.3.b.8: Data analysis. The student applies mathematical process standards to organize data to make it useful for interpreting information and solving problems. The student is expected to:
 - 111.3.b.8.A: collect, sort, and organize data in up to three categories using models/representations such as tally marks or T-charts;
- 2nd Grade:
 - 111.4.b.1: Mathematical process standards. The student uses mathematical processes to acquire and demonstrate mathematical understanding. The student is expected to:
 - 111.4.b.1.A: apply mathematics to problems arising in everyday life, society, and the workplace;
 - 111.4.b.1.C: select tools, including real objects, manipulatives, paper and pencil, and technology as appropriate, and techniques, including mental math, estimation, and number sense as appropriate, to solve problems;
 - 111.4.b.2: Number and operations. The student applies mathematical process standards to understand how to represent and compare whole numbers, the relative position and magnitude of whole numbers, and relationships within the numeration system related to place value. The student is expected to:
 - 111.4.b.2.B: use standard, word, and expanded forms to represent numbers up to 1,200;
 - 111.4.b.4: Number and operations. The student applies mathematical process standards to develop and use strategies and methods for whole number computations in order to solve addition and subtraction problems with efficiency and accuracy. The student is expected to:



- 111.4.b.4.A: recall basic facts to add and subtract within 20 with automaticity;
- 111.4.b.4.C: solve one-step and multi-step word problems involving addition and subtraction within 1,000 using a variety of strategies based on place value, including algorithms; and
- 111.4.b.9: Geometry and measurement. The student applies mathematical process standards to select and use units to describe length, area, and time. The student is expected to:
 - 111.4.b.9.D: determine the length of an object to the nearest marked unit using rulers, yardsticks, meter sticks, or measuring tapes;

Science

- Kindergarten:
 - 112.2.b.2: Scientific and engineering practices. The student analyzes and interprets data to derive meaning, identify features and patterns, and discover relationships or correlations to develop evidence-based arguments or evaluate designs. The student is expected to:
 - 112.2.b.2.B: analyze data by identifying significant features and patterns
 - 112.2.b.6: Matter and its properties. The student knows that objects have physical properties that determine how they are described and classified. The student is expected to identify and record observable physical properties of objects, including shape, color, texture, and material, and generate ways to classify objects
 - 112.2.b.13: Organisms and environments. The student knows that organisms resemble their parents and have structures and undergo processes that help them interact and survive within their environments. The student is expected to:
 - 112.2.b.13.C: identify and record the changes from seed, seedling, plant, flower, and fruit in a simple plant life cycle
- 1st Grade:
 - 112.3.b.2: Scientific and engineering practices. The student analyzes and interprets data to derive meaning, identify features and patterns, and discover relationships or correlations to develop evidence-based arguments or evaluate designs. The student is expected to:
 - 112.3.b.2.B: analyze data by identifying significant features and patterns
- 2nd Grade:



- 112.4.b.2: Scientific and engineering practices. The student analyzes and interprets data to derive meaning, identify features and patterns, and discover relationships or correlations to develop evidence-based arguments or evaluate designs. The student is expected to:
 - 112.4.b.2.B: analyze data by identifying significant features and patterns
- 112.4.b.12: Organisms and environments. The student knows that living organisms have basic needs that must be met through interactions within their environment. The student is expected to:
 - 112.4.b.12.A: describe how the physical characteristics of environments, including the amount of rainfall, support plants and animals within an ecosystem

Social Studies

- Kindergarten:
 - 113.11.c.13: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including technology. The student is expected to:
 - 113.11.c.13.D: sequence and categorize information.
 - 113.11.c.14: Social studies skills. The student communicates in oral and visual forms. The student is expected to:
 - 113.11.c.14.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
- 1st Grade:
 - 113.12.c.16: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including technology. The student is expected to:
 - 113.12.c.16.D: sequence and categorize information;
 - 113.12.c.17: Social studies skills. The student communicates in oral, visual, and written forms. The student is expected to:
 - 113.12.c.17.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
- 2nd Grade:
 - 113.13.c.15: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including technology. The student is expected to:
 - 113.13.c.15.D: interpret oral, visual, and print material by sequencing, categorizing, identifying the main idea, predicting, comparing, and contrasting.



- 113.13.c.16: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
 - 113.13.c.16.E: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;

SORGHUM AT SCHOOL: LEARN, GROW, POP, TASTE

English Language Arts

- Kindergarten:
 - 110.2.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.2.b.1.C: share information and ideas by speaking audibly and clearly using the conventions of language
 - 110.2.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including taking turns
 - 110.2.b.11: Composition: listening, speaking, reading, writing, and thinking using multiple texts--genres. The student uses genre characteristics and craft to compose multiple texts that are meaningful. The student is expected to:
 - 110.2.b.11.A: dictate or compose literary texts, including personal narratives;
 - 110.2.b.11.B: dictate or compose informational texts.
- 1st Grade:
 - 110.3.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.3.b.1.C: share information and ideas about the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language
 - 110.3.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including listening to others, speaking when recognized, and making appropriate contributions
 - 110.3.b.12: Composition: listening, speaking, reading, writing, and thinking using multiple texts--genres. The student uses genre characteristics and craft to compose multiple texts that are meaningful. The student is expected to:
 - 110.3.b.12.A: dictate or compose literary texts, including personal narratives and poetry;
 - 110.3.b.12.B: dictate or compose informational texts, including procedural texts;
- 2nd Grade:



- 110.4.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.4.b.1.C: share information and ideas that focus on the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language
 - 110.4.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including listening to others, speaking when recognized, making appropriate contributions, and building on the ideas of others
- 110.4.b.12: Composition: listening, speaking, reading, writing, and thinking using multiple texts--genres. The student uses genre characteristics and craft to compose multiple texts that are meaningful. The student is expected to:
 - 110.4.b.12.A: compose literary texts, including personal narratives and poetry;
 - 110.4.b.12.B: compose informational texts, including procedural texts and reports;

Science

- Kindergarten:
 - 112.2.b.1: Scientific and engineering practices. The student asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:
 - 112.2.b.1.B: use scientific practices to plan and conduct simple descriptive investigations and use engineering practices to design solutions to problems
 - 112.2.b.5: Recurring Themes and Concepts. The student uses recurring themes and concepts to make connections across disciplines. The student is expected to:
 - 112.2.b.5.A: identify and use patterns to describe phenomena or design solutions
 - 112.2.b.11: Earth and space. The student knows that earth materials are important to everyday life. The student is expected to observe and generate examples of practical uses for rocks, soil, and water
 - 112.2.b.12: Organisms and Environments: The student knows that plants and animals depend on the environment to meet their basic needs for survival. The student is expected to:
 - 112.2.b.12.A: observe and identify the dependence of plants on air, sunlight, water, nutrients in the soil, and space to grow



- 112.2.b.13: Organisms and Environments: The student knows that organisms resemble their parents and have structures and undergo processes that help them interact and survive within their environments. The student is expected to:
 - 112.2.b.13.A: identify the structures of plants, including roots, stems, leaves, flowers, and fruits
 - 112.2.b.13.C: identify and record the changes from seed, seedling, plant, flower, and fruit in a simple plant life cycle
- 1st Grade:
 - 112.3.b.1: Scientific and engineering practices. The student asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:
 - 112.3.b.1.B: use scientific practices to plan and conduct simple descriptive investigations and use engineering practices to design solutions to problems
 - 112.3.b.5: Recurring Themes and Concepts. The student uses recurring themes and concepts to make connections across disciplines. The student is expected to:
 - 112.3.b.5.A: identify and use patterns to describe phenomena or design solutions
 - 112.3.b.11: Organisms and Environments: The student knows that earth materials and products made from these materials are important to everyday life. The student is expected to:
 - 112.3.b.11.A: identify and describe how plants, animals, and humans use rocks, soil, and water
 - 112.3.b.12: Organisms and Environments: The student knows that the environment is composed of relationships between living organisms and nonliving components. The student is expected to:
 - 112.3.b.12.A: classify living and nonliving things based upon
 - of animals help them find and take in food, water, and air;
- 2nd Grade:
 - 112.4.b.1: Scientific and engineering practices. The student asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:



- 112.4.b.1.B: use scientific practices to plan and conduct simple descriptive investigations and use engineering practices to design solutions to problems
- 112.4.b.5: Recurring Themes and Concepts. The student uses recurring themes and concepts to make connections across disciplines. The student is expected to:
 - 112.4.b.5.A: identify and use patterns to describe phenomena or design solutions
- 112.4.b.12: Organisms and Environments: The student describes patterns, cycles, systems, and relationships within environments. The student is expected to:
 - 112.4.b.12.C: explain and demonstrate how some plants depend on other living things, wind, or water for pollination and to move their seeds around
- 112.4.b.13: Organisms and Environments: The student knows that organisms resemble their parents and have structures and undergo processes that help them interact and survive within their environments. The student is expected to:
 - 112.4.b.13.A: identify the roots, stems, leaves, flowers, fruits, and seeds of plants and compare how those structures help different plants meet their basic needs for survival

Social Studies

- Kindergarten:
 - 113.11.c.3: Geography. The student understands the concept of location. The student is expected to:
 - 113.11.c.3.C: identify and use geographic tools that aid in determining location, including maps and globes.
 - 113.11.c.14: Social studies skills. The student communicates in oral and visual forms. The student is expected to:
 - 113.11.c.14.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
 - 113.11.c.14.D: create and interpret visuals, including pictures and maps;
- 1st Grade:
 - 113.12.c.4: Geography. The student understands the purpose of geographic tools, including maps and globes. The student is expected to:
 - 113.12.c.4.B: locate and explore the community, Texas, and the United States on maps and globes.
 - 113.12.c.17: Social studies skills. The student communicates in oral, visual, and written forms. The student is expected to:



- 113.12.c.17.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
- 113.12.c.17.D: create and interpret visual and written material;
- 2nd Grade:
 - 113.13.c.16: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
 - 113.13.c.16.E: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
 - 113.13.c.16.F: create written and visual material such as stories, maps, and graphic organizers to express ideas;

SUNFLOWER LIFE CYCLES

English Language Arts

- Kindergarten:
 - 110.2.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.2.b.1.C: share information and ideas by speaking audibly and clearly using the conventions of language
 - 110.2.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including taking turns
- 1st Grade:
 - 110.3.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.3.b.1.C: share information and ideas about the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language
 - 110.3.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including listening to others, speaking when recognized, and making appropriate contributions
- 2nd Grade:
 - 110.4.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.4.b.1.C: share information and ideas that focus on the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language



- 110.4.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including listening to others, speaking when recognized, making appropriate contributions, and building on the ideas of others

Science

- Kindergarten:
 - 112.2.b.1: Scientific and engineering practices. The student asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:
 - 112.2.b.1.A: ask questions and define problems based on observations or information from text, phenomena, models, or investigations
 - 112.2.b.2: Scientific and engineering practices. The student analyzes and interprets data to derive meaning, identify features and patterns, and discover relationships or correlations to develop evidence-based arguments or evaluate designs. The student is expected to:
 - 112.2.b.2.B: analyze data by identifying significant features and patterns
 - 112.2.b.5: Recurring Themes and Concepts. The student uses recurring themes and concepts to make connections across disciplines. The student is expected to:
 - 112.2.b.5.A: identify and use patterns to describe phenomena or design solutions
 - 112.2.b.5.D: examine the parts of a whole to define or model a system
 - 112.2.b.12: Organisms and Environments: The student knows that plants and animals depend on the environment to meet their basic needs for survival. The student is expected to:
 - 112.2.b.12.A: observe and identify the dependence of plants on air, sunlight, water, nutrients in the soil, and space to grow
 - 112.2.b.13: Organisms and Environments: The student knows that organisms resemble their parents and have structures and undergo processes that help them interact and survive within their environments. The student is expected to:
 - 112.2.b.13.C: identify and record the changes from seed, seedling, plant, flower, and fruit in a simple plant life cycle
- 1st Grade:
 - 112.3.b.1: Scientific and engineering practices. The student asks questions, identifies problems, and plans and safely



conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:

- 112.3.b.1.A: ask questions and define problems based on observations or information from text, phenomena, models, or investigations
- 112.3.b.2: Scientific and engineering practices. The student analyzes and interprets data to derive meaning, identify features and patterns, and discover relationships or correlations to develop evidence-based arguments or evaluate designs. The student is expected to:
 - 112.3.b.2.A: identify basic advantages and limitations of models such as their size, properties, and materials
- 112.3.b.5: Recurring Themes and Concepts. The student uses recurring themes and concepts to make connections across disciplines. The student is expected to:
 - 112.3.b.5.A: identify and use patterns to describe phenomena or design solutions
 - 112.3.b.5.D: examine the parts of a whole to define or model a system
- 112.3.b.12: Organisms and Environments: The student knows that the environment is composed of relationships between living organisms and nonliving components. The student is expected to:
 - 112.3.b.12.A: classify living and nonliving things based upon whether they have basic needs and produce young
- 2nd Grade:
 - 112.4.b.1: Scientific and engineering practices. The student asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:
 - 112.4.b.1.A: ask questions and define problems based on observations or information from text, phenomena, models, or investigations
 - 112.4.b.2: Scientific and engineering practices. The student analyzes and interprets data to derive meaning, identify features and patterns, and discover relationships or correlations to develop evidence-based arguments or evaluate designs. The student is expected to:
 - 112.4.b.2.A: identify basic advantages and limitations of models such as their size, properties, and materials



- 112.4.b.5: Recurring Themes and Concepts. The student uses recurring themes and concepts to make connections across disciplines. The student is expected to:
 - 112.4.b.5.A: identify and use patterns to describe phenomena or design solutions
 - 112.4.b.5.D: examine the parts of a whole to define or model a system
- 112.4.b.12: Organisms and Environments: The student describes patterns, cycles, systems, and relationships within environments. The student is expected to:
 - 112.4.b.12.A: describe how the physical characteristics of environments, including the amount of rainfall, support plants and animals within an ecosystem
 - 112.4.b.12.C: explain and demonstrate how some plants depend on other living things, wind, or water for pollination and to move their seeds around
- 112.4.b.13: Organisms and Environments: The student knows that organisms resemble their parents and have structures and undergo processes that help them interact and survive within their environments. The student is expected to:
 - 112.4.b.13.A: identify the roots, stems, leaves, flowers, fruits, and seeds of plants and compare how those structures help different plants meet their basic needs for survival

Social Studies

- Kindergarten:
 - 113.11.c.14: Social studies skills. The student communicates in oral and visual forms. The student is expected to:
 - 113.11.c.14.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
 - 113.11.c.14.D: create and interpret visuals, including pictures and maps;
- 1st Grade:
 - 113.12.c.17: Social studies skills. The student communicates in oral, visual, and written forms. The student is expected to:
 - 113.12.c.17.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
 - 113.12.c.17.D: create and interpret visual and written material;
- 2nd Grade:



- 113.13.c.16: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
 - 113.13.c.16.E: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
 - 113.13.c.16.F: create written and visual material such as stories, maps, and graphic organizers to express ideas;

SUPREME SEEDS

English Language Arts

- Kindergarten:
 - 110.2.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.2.b.1.C: share information and ideas by speaking audibly and clearly using the conventions of language
 - 110.2.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including taking turns
- 1st Grade:
 - 110.3.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.3.b.1.C: share information and ideas about the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language
 - 110.3.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including listening to others, speaking when recognized, and making appropriate contributions
- 2nd Grade:
 - 110.4.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.4.b.1.C: share information and ideas that focus on the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language
 - 110.4.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including listening to others, speaking when recognized, making appropriate contributions, and building on the ideas of others

Science

- Kindergarten:



- 112.2.b.1: Scientific and engineering practices. The student asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:
 - 112.2.b.1.E: collect observations and measurements as evidence
 - 112.2.b.1.F: record and organize data using pictures, numbers, words, symbols, and simple graphs
- 112.2.b.2: Scientific and engineering practices. The student analyzes and interprets data to derive meaning, identify features and patterns, and discover relationships or correlations to develop evidence-based arguments or evaluate designs. The student is expected to:
 - 112.2.b.2.B: analyze data by identifying significant features and patterns
- 112.2.b.3: Scientific and engineering practices. The student develops evidence-based explanations and communicates findings, conclusions, and proposed solutions. The student is expected to:
 - 112.2.b.3.A: develop explanations and propose solutions supported by data and models
 - 112.2.b.3.B: communicate explanations and solutions individually and collaboratively in a variety of settings and formats
- 112.2.b.4: Scientific and engineering practices. The student knows the contributions of scientists and recognizes the importance of scientific research and innovation on society. The student is expected to:
 - 112.2.b.4.A: explain how science or an innovation can help others
- 112.2.b.5: Recurring Themes and Concepts. The student uses recurring themes and concepts to make connections across disciplines. The student is expected to:
 - 112.2.b.5.A: identify and use patterns to describe phenomena or design solutions
 - 112.2.b.5.G: describe how factors or conditions can cause objects, organisms, and systems to either change or stay the same
- 112.2.b.6: Matter and Its Properties: The student knows that objects have physical properties that determine how they are described and classified. The student is expected to identify and record observable physical properties of objects, including



shape, color, texture, and material, and generate ways to classify objects

- 112.2.b.13: Organisms and Environments: The student knows that organisms resemble their parents and have structures and undergo processes that help them interact and survive within their environments. The student is expected to:
 - 112.2.b.13.C: identify and record the changes from seed, seedling, plant, flower, and fruit in a simple plant life cycle
- 1st Grade:
 - 112.3.b.1: Scientific and engineering practices. The student asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:
 - 112.3.b.1.E: collect observations and measurements as evidence
 - 112.3.b.1.F: record and organize data using pictures, numbers, words, symbols, and simple graphs
 - 112.3.b.2: Scientific and engineering practices. The student analyzes and interprets data to derive meaning, identify features and patterns, and discover relationships or correlations to develop evidence-based arguments or evaluate designs. The student is expected to:
 - 112.3.b.2.A: identify basic advantages and limitations of models such as their size, properties, and materials
 - 112.3.b.3: Scientific and engineering practices. The student develops evidence-based explanations and communicates findings, conclusions, and proposed solutions. The student is expected to:
 - 112.3.b.3.A: develop explanations and propose solutions supported by data and models
 - 112.3.b.3.B: communicate explanations and solutions individually and collaboratively in a variety of settings and formats
 - 112.3.b.4: Scientific and engineering practices. The student knows the contributions of scientists and recognizes the importance of scientific research and innovation on society. The student is expected to:
 - 112.3.b.4.A: explain how science or an innovation can help others
 - 112.3.b.5: Recurring Themes and Concepts. The student uses recurring themes and concepts to make connections across disciplines. The student is expected to:



- 112.3.b.5.A: identify and use patterns to describe phenomena or design solutions
- 112.3.b.5.E: identify forms of energy and properties of matter
- 112.3.b.6: Matter and Its Properties: The student knows that objects have physical properties that determine how they are described and classified. The student is expected to:
 - 12.3.b.6.A: classify objects by observable physical properties, including, shape, color, and texture, and attributes such as larger and smaller and heavier and lighter
 - 12.3.b.6.B: explain and predict changes in materials caused by heating and cooling
- 2nd Grade:
 - 112.4.b.1: Scientific and engineering practices. The student asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:
 - 112.4.b.1.E: collect observations and measurements as evidence
 - 112.4.b.1.F: record and organize data using pictures, numbers, words, symbols, and simple graphs
 - 112.4.b.2: Scientific and engineering practices. The student analyzes and interprets data to derive meaning, identify features and patterns, and discover relationships or correlations to develop evidence-based arguments or evaluate designs. The student is expected to:
 - 112.4.b.2.A: identify basic advantages and limitations of models such as their size, properties, and materials
 - 112.4.b.3: Scientific and engineering practices. The student develops evidence-based explanations and communicates findings, conclusions, and proposed solutions. The student is expected to:
 - 112.4.b.3.A: develop explanations and propose solutions supported by data and models
 - 112.4.b.3.B: communicate explanations and solutions individually and collaboratively in a variety of settings and formats
 - 112.4.b.5: Recurring Themes and Concepts. The student uses recurring themes and concepts to make connections across disciplines. The student is expected to:
 - 112.4.b.5.A: identify and use patterns to describe phenomena or design solutions



- 112.4.b.5.E: identify forms of energy and properties of matter
- 112.4.b.6: Matter and Its Properties: The student knows that objects have physical properties that determine how they are described and classified. The student is expected to:
 - 12.4.b.6.C: demonstrate that small units such as building blocks can be combined or reassembled to form new objects for different purposes and explain the materials chosen based on their physical properties
- 112.4.b.13: Organisms and Environments: The student knows that organisms resemble their parents and have structures and undergo processes that help them interact and survive within their environments. The student is expected to:
 - 112.4.b.13.A: identify the roots, stems, leaves, flowers, fruits, and seeds of plants and compare how those structures help different plants meet their basic needs for survival

Social Studies

- Kindergarten:
 - 113.11.c.14: Social studies skills. The student communicates in oral and visual forms. The student is expected to:
 - 113.11.c.14.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
 - 113.11.c.14.D: create and interpret visuals, including pictures and maps;
- 1st Grade:
 - 113.12.c.17: Social studies skills. The student communicates in oral, visual, and written forms. The student is expected to:
 - 113.12.c.17.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
 - 113.12.c.17.D: create and interpret visual and written material;
- 2nd Grade:
 - 113.13.c.16: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
 - 113.13.c.16.E: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
 - 113.13.c.16.F: create written and visual material such as stories, maps, and graphic organizers to express ideas;



SURVIVAL OF THE FITTEST: COMPARING THE NEEDS OF HUMANS AND COWS

English Language Arts

- Kindergarten:
 - 110.2.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.2.b.1.C: share information and ideas by speaking audibly and clearly using the conventions of language
 - 110.2.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including taking turns
- 1st Grade:
 - 110.3.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.3.b.1.C: share information and ideas about the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language
 - 110.3.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including listening to others, speaking when recognized, and making appropriate contributions
- 2nd Grade:
 - 110.4.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.4.b.1.C: share information and ideas that focus on the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language
 - 110.4.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including listening to others, speaking when recognized, making appropriate contributions, and building on the ideas of others

Science

- Kindergarten:
 - 112.2.b.1: Scientific and engineering practices. The student asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:
 - 112.2.b.1.E: collect observations and measurements as evidence



- 112.2.b.1.F: record and organize data using pictures, numbers, words, symbols, and simple graphs
 - 112.2.b.2: Scientific and engineering practices. The student analyzes and interprets data to derive meaning, identify features and patterns, and discover relationships or correlations to develop evidence-based arguments or evaluate designs. The student is expected to:
 - 112.2.b.2.B: analyze data by identifying significant features and patterns
 - 112.2.b.2.C: use mathematical concepts to compare two objects with common attributes
 - 112.2.b.4: Scientific and engineering practices. The student knows the contributions of scientists and recognizes the importance of scientific research and innovation on society. The student is expected to:
 - 112.2.b.4.A: explain how science or an innovation can help others
 - 112.2.b.5: Recurring Themes and Concepts. The student uses recurring themes and concepts to make connections across disciplines. The student is expected to:
 - 112.2.b.5.A: identify and use patterns to describe phenomena or design solutions
 - 112.2.b.12: Organisms and Environments: The student knows that plants and animals depend on the environment to meet their basic needs for survival. The student is expected to:
 - 112.2.b.12.A: observe and identify the dependence of plants on air, sunlight, water, nutrients in the soil, and space to grow
- 1st Grade:
 - 112.3.b.1: Scientific and engineering practices. The student asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:
 - 112.3.b.1.E: collect observations and measurements as evidence
 - 112.3.b.1.F: record and organize data using pictures, numbers, words, symbols, and simple graphs
 - 112.3.b.2: Scientific and engineering practices. The student analyzes and interprets data to derive meaning, identify features and patterns, and discover relationships or correlations to develop evidence-based arguments or evaluate designs. The student is expected to:



- 112.3.b.2.A: identify basic advantages and limitations of models such as their size, properties, and materials
 - 112.3.b.2.B: analyze data by identifying significant features and patterns
 - 112.3.b.5: Recurring Themes and Concepts. The student uses recurring themes and concepts to make connections across disciplines. The student is expected to:
 - 112.3.b.5.A: identify and use patterns to describe phenomena or design solutions
 - 112.3.b.11: Organisms and Environments: The student knows that earth materials and products made from these materials are important to everyday life. The student is expected to:
 - 112.3.b.11.A: identify and describe how plants, animals, and humans use rocks, soil, and water
 - 112.3.b.12: Organisms and Environments: The student knows that the environment is composed of relationships between living organisms and nonliving components. The student is expected to:
 - 112.3.b.12.A: classify living and nonliving things based upon whether they have basic needs and produce young
 - 112.3.b.12.C: identify and illustrate how living organisms depend on each other through food chains
 - 112.3.b.13: Organisms and Environments: The student knows that organisms resemble their parents and have structures and undergo processes that help them interact and survive within their environments. The student is expected to:
 - 112.3.b.13.A: identify the external structures of different animals and compare how those structures help different animals live, move, and meet basic needs for survival
- 2nd Grade:
 - 112.4.b.1: Scientific and engineering practices. The student asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:
 - 112.4.b.1.E: collect observations and measurements as evidence
 - 112.4.b.1.F: record and organize data using pictures, numbers, words, symbols, and simple graphs
 - 112.4.b.2: Scientific and engineering practices. The student analyzes and interprets data to derive meaning, identify features and patterns, and discover relationships or correlations



to develop evidence-based arguments or evaluate designs. The student is expected to:

- 112.4.b.2.A: identify basic advantages and limitations of models such as their size, properties, and materials
- 112.4.b.2.B: analyze data by identifying significant features and patterns
- 112.4.b.5: Recurring Themes and Concepts. The student uses recurring themes and concepts to make connections across disciplines. The student is expected to:
 - 112.4.b.5.A: identify and use patterns to describe phenomena or design solutions
- 112.4.b.12: Organisms and Environments: The student describes patterns, cycles, systems, and relationships within environments. The student is expected to:
 - 112.4.b.12.A: describe how the physical characteristics of environments, including the amount of rainfall, support plants and animals within an ecosystem
 - 112.4.b.12.B: create and describe food chains identifying producers and consumers to demonstrate how animals depend on other living things
- 112.4.b.13: Organisms and Environments: The student knows that organisms resemble their parents and have structures and undergo processes that help them interact and survive within their environments. The student is expected to:
 - 112.4.b.13.A: identify the roots, stems, leaves, flowers, fruits, and seeds of plants and compare how those structures help different plants meet their basic needs for survival
 - 112.4.b.13.B: record and compare how the structures and behaviors of animals help them find and take in food, water, and air

Social Studies

- Kindergarten:
 - 113.11.c.5: Economics. The student understands the difference between human needs and wants and how they are met. The student is expected to:
 - 113.11.c.5.A: identify basic human needs of food, clothing, and shelter;
 - 113.11.c.14: Social studies skills. The student communicates in oral and visual forms. The student is expected to:



- 113.11.c.14.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
- 113.11.c.14.D: create and interpret visuals, including pictures and maps;
- 1st Grade:
 - 113.12.c.17: Social studies skills. The student communicates in oral, visual, and written forms. The student is expected to:
 - 113.12.c.17.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
 - 113.12.c.17.D: create and interpret visual and written material;
- 2nd Grade:
 - 113.13.c.7: Economics. The student understands the roles of producers and consumers in the production of goods and services. The student is expected to:
 - 113.13.c.7.C: trace the development of a product from a natural resource to a finished product;
 - 113.13.c.16: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
 - 113.13.c.16.E: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
 - 113.13.c.16.F: create written and visual material such as stories, maps, and graphic organizers to express ideas;

TEXTURING: THE BIG PICTURE

English Language Arts

- Kindergarten:
 - 110.2.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.2.b.1.C: share information and ideas by speaking audibly and clearly using the conventions of language
 - 110.2.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including taking turns
- 1st Grade:
 - 110.3.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:



- 110.3.b.1.C: share information and ideas about the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language
- 110.3.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including listening to others, speaking when recognized, and making appropriate contributions
- 2nd Grade:
 - 110.4.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.4.b.1.C: share information and ideas that focus on the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language
 - 110.4.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including listening to others, speaking when recognized, making appropriate contributions, and building on the ideas of others
- Science
 - Kindergarten:
 - 112.2.b.1: Scientific and engineering practices. The student asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:
 - 112.2.b.1.E: collect observations and measurements as evidence
 - 112.2.b.1.F: record and organize data using pictures, numbers, words, symbols, and simple graphs
 - 112.2.b.3: Scientific and engineering practices. The student develops evidence-based explanations and communicates findings, conclusions, and proposed solutions. The student is expected to:
 - 112.2.b.3.A: develop explanations and propose solutions supported by data and models
 - 112.2.b.3.B: communicate explanations and solutions individually and collaboratively in a variety of settings and formats
 - 112.2.b.3.C: listen actively to others' explanations to identify important evidence and engage respectfully in scientific discussion
 - 112.2.b.5: Recurring Themes and Concepts. The student uses recurring themes and concepts to make connections across disciplines. The student is expected to:



- 112.2.b.5.A: identify and use patterns to describe phenomena or design solutions
- 112.2.b.5.G: describe how factors or conditions can cause objects, organisms, and systems to either change or stay the same
- 112.2.b.10: Earth and space. The student knows that the natural world includes earth materials and systems that can be observed. The student is expected to:
 - 112.2.b.10.B: observe and describe weather changes from day to day and over seasons
- 112.2.b.11: Earth and space. The student knows that earth materials are important to everyday life. The student is expected to observe and generate examples of practical uses for rocks, soil, and water
- 112.2.b.13: Organisms and Environments: The student knows that organisms resemble their parents and have structures and undergo processes that help them interact and survive within their environments. The student is expected to:
 - 112.2.b.13.A: identify the structures of plants, including roots, stems, leaves, flowers, and fruits
- 1st Grade:
 - 112.3.b.1: Scientific and engineering practices. The student asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:
 - 112.3.b.1.E: collect observations and measurements as evidence
 - 112.3.b.1.F: record and organize data using pictures, numbers, words, symbols, and simple graphs
 - 112.3.b.3: Scientific and engineering practices. The student develops evidence-based explanations and communicates findings, conclusions, and proposed solutions. The student is expected to:
 - 112.3.b.3.A: develop explanations and propose solutions supported by data and models
 - 112.3.b.3.B: communicate explanations and solutions individually and collaboratively in a variety of settings and formats
 - 112.3.b.3.C: listen actively to others' explanations to identify important evidence and engage respectfully in scientific discussion



- 112.3.b.5: Recurring Themes and Concepts. The student uses recurring themes and concepts to make connections across disciplines. The student is expected to:
 - 112.3.b.5.A: identify and use patterns to describe phenomena or design solutions
 - 112.3.b.5.G: describe how factors or conditions can cause objects, organisms, and systems to either change or stay the same.
- 112.3.b.6: Matter and Its Properties: The student knows that objects have physical properties that determine how they are described and classified. The student is expected to:
 - 12.3.b.6.A: classify objects by observable physical properties, including, shape, color, and texture, and attributes such as larger and smaller and heavier and lighter
 - 12.3.b.6.B: explain and predict changes in materials caused by heating and cooling
- 112.3.b.10: Earth and space. The student knows that the natural world includes earth materials that can be observed in systems and processes. The student is expected to:
 - 112.3.b.10.A: investigate and document the properties of particle size, shape, texture, and color and the components of different types of soils such as topsoil, clay, and sand
- 112.3.b.11: Organisms and Environments: The student knows that earth materials and products made from these materials are important to everyday life. The student is expected to:
 - 112.3.b.11.B: explain why water conservation is important
- 112.3.b.12: Organisms and Environments: The student knows that the environment is composed of relationships between living organisms and nonliving components. The student is expected to:
 - 112.3.b.12.B: describe and record examples of interactions and dependence between living and nonliving components in terrariums or aquariums
 - 112.3.b.12.C: identify and illustrate how living organisms depend on each other through food chains
- 2nd Grade:
 - 112.4.b.1: Scientific and engineering practices. The student asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to



answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:

- 112.4.b.1.E: collect observations and measurements as evidence
- 112.4.b.1.F: record and organize data using pictures, numbers, words, symbols, and simple graphs
- 112.4.b.3: Scientific and engineering practices. The student develops evidence-based explanations and communicates findings, conclusions, and proposed solutions. The student is expected to:
 - 112.4.b.3.A: develop explanations and propose solutions supported by data and models
 - 112.4.b.3.B: communicate explanations and solutions individually and collaboratively in a variety of settings and formats
 - 112.4.b.3.C: listen actively to others' explanations to identify important evidence and engage respectfully in scientific discussion
- 112.4.b.5: Recurring Themes and Concepts. The student uses recurring themes and concepts to make connections across disciplines. The student is expected to:
 - 112.4.b.5.A: identify and use patterns to describe phenomena or design solutions
 - 112.4.b.5.E: identify forms of energy and properties of matter
- 112.4.b.10: Earth and space. The student knows that the natural world includes earth materials that can be observed in systems and processes. The student is expected to:
 - 112.4.b.10.A: investigate and describe how wind and water move soil and rock particles across the Earth's surface such as wind blowing sand into dunes on a beach or a river carrying rocks as it flows
- 112.4.b.12: Organisms and Environments: The student describes patterns, cycles, systems, and relationships within environments. The student is expected to:
 - 112.4.b.12.C: explain and demonstrate how some plants depend on other living things, wind, or water for pollination and to move their seeds around

Social Studies

- Kindergarten:
 - 113.11.c.14: Social studies skills. The student communicates in oral and visual forms. The student is expected to:



- 113.11.c.14.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
- 113.11.c.14.D: create and interpret visuals, including pictures and maps;
- 1st Grade:
 - 113.12.c.17: Social studies skills. The student communicates in oral, visual, and written forms. The student is expected to:
 - 113.12.c.17.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
 - 113.12.c.17.D: create and interpret visual and written material;
- 2nd Grade:
 - 113.13.c.16: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
 - 113.13.c.16.E: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
 - 113.13.c.16.F: create written and visual material such as stories, maps, and graphic organizers to express ideas;

THE AMAZING HONEYBEE

English Language Arts

- Kindergarten:
 - 110.2.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.2.b.1.C: share information and ideas by speaking audibly and clearly using the conventions of language;
 - 110.2.b.2: Developing and sustaining foundational language skills: listening, speaking, reading, writing, and thinking--beginning reading and writing. The student develops word structure knowledge through phonological awareness, print concepts, phonics, and morphology to communicate, decode, and spell. The student is expected to:
 - 110.2.b.2.E: develop handwriting by accurately forming all uppercase and lowercase letters using appropriate directionality.
 - 110.2.b.5: Comprehension skills: listening, speaking, reading, writing, and thinking using multiple texts. The student uses metacognitive skills to both develop and deepen comprehension of increasingly complex texts. The student is expected to:



- 110.2.b.5.G: evaluate details to determine what is most important with adult assistance;
- 110.2.b.5.H: synthesize information to create new understanding with adult assistance; and
- 110.2.b.6: Response skills: listening, speaking, reading, writing, and thinking using multiple texts. The student responds to an increasingly challenging variety of sources that are read, heard, or viewed. The student is expected to:
 - 110.2.b.6.E: interact with sources in meaningful ways such as illustrating or writing; and
 - 110.2.b.6.F: respond using newly acquired vocabulary as appropriate.
- 1st Grade:
 - 110.3.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.3.b.1.C: share information and ideas about the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language;
 - 110.3.b.2: Developing and sustaining foundational language skills: listening, speaking, reading, writing, and thinking--beginning reading and writing. The student develops word structure knowledge through phonological awareness, print concepts, phonics, and morphology to communicate, decode, and spell. The student is expected to:
 - 110.3.b.2.F: develop handwriting by printing words, sentences, and answers legibly leaving appropriate spaces between words.
 - 110.3.b.6: Comprehension skills: listening, speaking, reading, writing, and thinking using multiple texts. The student uses metacognitive skills to both develop and deepen comprehension of increasingly complex texts. The student is expected to:
 - 110.3.b.6.G: evaluate details to determine what is most important with adult assistance;
 - 110.3.b.6.H: synthesize information to create new understanding with adult assistance; and
 - 110.3.b.7: Response skills: listening, speaking, reading, writing, and thinking using multiple texts. The student responds to an increasingly challenging variety of sources that are read, heard, or viewed. The student is expected to:
 - 110.3.b.7.E: interact with sources in meaningful ways such as illustrating or writing; and
 - 110.3.b.7.F: respond using newly acquired vocabulary as appropriate.



- 2nd Grade:
 - 110.4.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.4.b.1.C: share information and ideas that focus on the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language;
 - 110.4.b.6: Comprehension skills: listening, speaking, reading, writing, and thinking using multiple texts. The student uses metacognitive skills to both develop and deepen comprehension of increasingly complex texts. The student is expected to:
 - 110.4.b.6.G: evaluate details read to determine key ideas;
 - 110.4.b.6.H: synthesize information to create new understanding; and
 - 110.4.b.7: Response skills: listening, speaking, reading, writing, and thinking using multiple texts. The student responds to an increasingly challenging variety of sources that are read, heard, or viewed. The student is expected to:
 - 110.4.b.7.E: interact with sources in meaningful ways such as illustrating or writing; and
 - 110.4.b.7.F: respond using newly acquired vocabulary as appropriate.

Science

- 2nd Grade:
 - 112.4.b.13: Organisms and environments. The student knows that organisms have structures and undergo processes that help them interact and survive within their environments. The student is expected to:
 - 112.4.b.13.B: record and compare how the structures and behaviors of animals help them find and take in food, water, and air

Social Studies

- Kindergarten:
 - 113.11.c.13: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including technology. The student is expected to:
 - 113.11.c.13.D: sequence and categorize information.
 - 113.11.c.14: Social studies skills. The student communicates in oral and visual forms. The student is expected to:
 - 113.11.c.14.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;



- 1st Grade:
 - 113.12.c.16: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including technology. The student is expected to:
 - 113.12.c.16.D: sequence and categorize information.
 - 113.12.c.17: Social studies skills. The student communicates in oral, visual, and written forms. The student is expected to:
 - 113.12.c.17.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
- 2nd Grade:
 - 113.13.c.15: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including technology. The student is expected to:
 - 113.13.c.15.D: interpret oral, visual, and print material by sequencing, categorizing, identifying the main idea, predicting, comparing, and contrasting.
 - 113.13.c.16: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
 - 113.13.c.16.E: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;

THE CASE OF THE MISSING PUMPKIN

English Language Arts

- Kindergarten:
 - 110.2.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.2.b.1.C: share information and ideas by speaking audibly and clearly using the conventions of language
 - 110.2.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including taking turns
- 1st Grade:
 - 110.3.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.3.b.1.C: share information and ideas about the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language



- 110.3.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including listening to others, speaking when recognized, and making appropriate contributions
- 2nd Grade:
 - 110.4.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.4.b.1.C: share information and ideas that focus on the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language
 - 110.4.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including listening to others, speaking when recognized, making appropriate contributions, and building on the ideas of others

Science

- Kindergarten:
 - 112.2.b.1: Scientific and engineering practices. The student asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:
 - 112.2.b.1.A: ask questions and define problems based on observations or information from text, phenomena, models, or investigations
 - 112.2.b.1.B: use scientific practices to plan and conduct simple descriptive investigations and use engineering practices to design solutions to problems
 - 112.2.b.1.E: collect observations and measurements as evidence
 - 112.2.b.1.F: record and organize data using pictures, numbers, words, symbols, and simple graphs
 - 112.2.b.1.G: develop and use models to represent phenomena, objects, and processes or design a prototype for a solution to a problem
 - 112.2.b.3: Scientific and engineering practices. The student develops evidence-based explanations and communicates findings, conclusions, and proposed solutions. The student is expected to:
 - 112.2.b.3.A: develop explanations and propose solutions supported by data and models
 - 112.2.b.3.B: communicate explanations and solutions individually and collaboratively in a variety of settings and formats



- 112.2.b.5: Recurring Themes and Concepts. The student uses recurring themes and concepts to make connections across disciplines. The student is expected to:
 - 112.2.b.5.A: identify and use patterns to describe phenomena or design solutions
 - 112.2.b.5.B: investigate and predict cause-and-effect relationships in science
 - 112.2.b.5.G: describe how factors or conditions can cause objects, organisms, and systems to either change or stay the same
- 112.2.b.10: Earth and space. The student knows that the natural world includes earth materials and systems that can be observed. The student is expected to:
 - 112.2.b.10.A: describe and classify rocks by the observable properties of size, shape, color, and texture
- 112.2.b.11: Earth and space. The student knows that earth materials are important to everyday life. The student is expected to observe and generate examples of practical uses for rocks, soil, and water
- 112.2.b.12: Organisms and Environments: The student knows that plants and animals depend on the environment to meet their basic needs for survival. The student is expected to:
 - 112.2.b.12.A: observe and identify the dependence of plants on air, sunlight, water, nutrients in the soil, and space to grow
- 112.2.b.13: Organisms and Environments: The student knows that organisms resemble their parents and have structures and undergo processes that help them interact and survive within their environments. The student is expected to:
 - 112.2.b.13.A: identify the structures of plants, including roots, stems, leaves, flowers, and fruits
 - 112.2.b.13.C: identify and record the changes from seed, seedling, plant, flower, and fruit in a simple plant life cycle
- 1st Grade:
 - 112.3.b.1: Scientific and engineering practices. The student asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:
 - 112.3.b.1.A: ask questions and define problems based on observations or information from text, phenomena, models, or investigations



- 112.3.b.1.B: use scientific practices to plan and conduct simple descriptive investigations and use engineering practices to design solutions to problems
- 112.3.b.1.E: collect observations and measurements as evidence
- 112.3.b.1.F: record and organize data using pictures, numbers, words, symbols, and simple graphs
- 112.3.b.1.G: develop and use models to represent phenomena, objects, and processes or design a prototype for a solution to a problem
- 112.3.b.3: Scientific and engineering practices. The student develops evidence-based explanations and communicates findings, conclusions, and proposed solutions. The student is expected to:
 - 112.3.b.3.A: develop explanations and propose solutions supported by data and models
 - 112.3.b.3.B: communicate explanations and solutions individually and collaboratively in a variety of settings and formats
- 112.3.b.5: Recurring Themes and Concepts. The student uses recurring themes and concepts to make connections across disciplines. The student is expected to:
 - 112.3.b.5.A: identify and use patterns to describe phenomena or design solutions
 - 112.3.b.5.B: investigate and predict cause-and-effect relationships in science
 - 112.3.b.5.G: describe how factors or conditions can cause objects, organisms, and systems to either change or stay the same
- 112.3.b.10: Earth and space. The student knows that the natural world includes earth materials that can be observed in systems and processes. The student is expected to:
 - 112.3.b.10.A: investigate and document the properties of particle size, shape, texture, and color and the components of different types of soils such as topsoil, clay, and sand
- 112.3.b.11: Organisms and Environments: The student knows that earth materials and products made from these materials are important to everyday life. The student is expected to:
 - 112.3.b.11.A: identify and describe how plants, animals, and humans use rocks, soil, and water
- 112.3.b.12: Organisms and Environments: The student knows that the environment is composed of relationships between



living organisms and nonliving components. The student is expected to:

- 112.3.b.12.A: classify living and nonliving things based upon whether they have basic needs and produce young
- 112.3.b.12.C: identify and illustrate how living organisms depend on each other through food chains

○ 2nd Grade:

- 112.4.b.1: Scientific and engineering practices. The student asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:
 - 112.4.b.1.A: ask questions and define problems based on observations or information from text, phenomena, models, or investigations
 - 112.4.b.1.B: use scientific practices to plan and conduct simple descriptive investigations and use engineering practices to design solutions to problems
 - 112.4.b.1.E: collect observations and measurements as evidence
 - 112.4.b.1.F: record and organize data using pictures, numbers, words, symbols, and simple graphs
 - 112.4.b.1.G: develop and use models to represent phenomena, objects, and processes or design a prototype for a solution to a problem
- 112.4.b.3: Scientific and engineering practices. The student develops evidence-based explanations and communicates findings, conclusions, and proposed solutions. The student is expected to:
 - 112.4.b.3.A: develop explanations and propose solutions supported by data and models
 - 112.4.b.3.B: communicate explanations and solutions individually and collaboratively in a variety of settings and formats
- 112.4.b.5: Recurring Themes and Concepts. The student uses recurring themes and concepts to make connections across disciplines. The student is expected to:
 - 112.4.b.5.A: identify and use patterns to describe phenomena or design solutions
 - 112.4.b.5.B: investigate and predict cause-and-effect relationships in science
 - 112.4.b.5.G: describe how factors or conditions can cause objects, organisms, and systems to either change or stay the same



- 112.4.b.10: Earth and space. The student knows that the natural world includes earth materials that can be observed in systems and processes. The student is expected to:
 - 112.4.b.10.A: investigate and describe how wind and water move soil and rock particles across the Earth's surface such as wind blowing sand into dunes on a beach or a river carrying rocks as it flows
- 112.4.b.12: Organisms and Environments: The student describes patterns, cycles, systems, and relationships within environments. The student is expected to:
 - 112.4.b.12.A: describe how the physical characteristics of environments, including the amount of rainfall, support plants and animals within an ecosystem
 - 112.4.b.12.B: create and describe food chains identifying producers and consumers to demonstrate how animals depend on other living things
 - 112.4.b.12.C: explain and demonstrate how some plants depend on other living things, wind, or water for pollination and to move their seeds around
- 112.4.b.13: Organisms and Environments: The student knows that organisms resemble their parents and have structures and undergo processes that help them interact and survive within their environments. The student is expected to:
 - 112.4.b.13.A: identify the roots, stems, leaves, flowers, fruits, and seeds of plants and compare how those structures help different plants meet their basic needs for survival

Social Studies

- Kindergarten:
 - 113.11.c.14: Social studies skills. The student communicates in oral and visual forms. The student is expected to:
 - 113.11.c.14.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
 - 113.11.c.14.D: create and interpret visuals, including pictures and maps;
- 1st Grade:
 - 113.12.c.17: Social studies skills. The student communicates in oral, visual, and written forms. The student is expected to:
 - 113.12.c.17.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;



- 113.12.c.17.D: create and interpret visual and written material;
- 2nd Grade:
 - 113.13.c.16: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
 - 113.13.c.16.E: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
 - 113.13.c.16.F: create written and visual material such as stories, maps, and graphic organizers to express ideas;

THE SEED MATCH

English Language Arts

- Kindergarten
 - 110.2.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.2.b.1.C: share information and ideas by speaking audibly and clearly using the conventions of language
 - 110.2.b.5: Comprehension skills: listening, speaking, reading, writing, and thinking using multiple texts. The student uses metacognitive skills to both develop and deepen comprehension of increasingly complex texts. The student is expected to:
 - 110.2.b.5.G: evaluate details to determine what is most important with adult assistance
 - 110.2.b.5.H: synthesize information to create new understanding with adult assistance
- 1st Grade:
 - 110.3.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.3.b.1.C: share information and ideas about the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language
 - 110.3.b.6: Comprehension skills: listening, speaking, reading, writing, and thinking using multiple texts. The student uses metacognitive skills to both develop and deepen comprehension of increasingly complex texts. The student is expected to:
 - 110.3.b.6.G: evaluate details to determine what is most important with adult assistance
 - 110.3.b.6.H: synthesize information to create new understanding with adult assistance



- 2nd Grade:
 - 110.4.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.4.b.1.C: share information and ideas that focus on the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language
 - 110.4.b.6: Comprehension skills: listening, speaking, reading, writing, and thinking using multiple texts. The student uses metacognitive skills to both develop and deepen comprehension of increasingly complex texts. The student is expected to:
 - 110.4.b.6.G: evaluate details read to determine key ideas
 - 110.4.b.6.H: synthesize information to create new understanding

Math

- Kindergarten:
 - 111.2.b.2: Number and operations. The student applies mathematical process standards to understand how to represent and compare whole numbers, the relative position and magnitude of whole numbers, and relationships within the numeration system. The student is expected to:
 - 111.2.b.2.A: count forward and backward to at least 20 with and without objects
 - 111.2.b.2.B: read, write, and represent whole numbers from 0 to at least 20 with and without objects or pictures
 - 111.2.b.2.C: count a set of objects up to at least 20 and demonstrate that the last number said tells the number of objects in the set regardless of their arrangement or order

Science

- Kindergarten:
 - 112.2.b.2: Scientific and engineering practices. The student analyzes and interprets data to derive meaning, identify features and patterns, and discover relationships or correlations to develop evidence-based arguments or evaluate designs. The student is expected to:
 - 112.2.b.2.B: analyze data by identifying significant features and patterns
 - 112.2.b.13: Organisms and environments. The student knows that organisms resemble their parents and have structures and undergo processes that help them interact and survive within their environments. The student is expected to:
 - 112.2.b.13.A: identify the structures of plants, including roots, stems, leaves, flowers, and fruits



- 1st Grade:
 - 112.3.b.2: Scientific and engineering practices. The student analyzes and interprets data to derive meaning, identify features and patterns, and discover relationships or correlations to develop evidence-based arguments or evaluate designs. The student is expected to:
 - 112.3.b.2.B: analyze data by identifying significant features and patterns
- 2nd Grade:
 - 112.4.b.2: Scientific and engineering practices. The student analyzes and interprets data to derive meaning, identify features and patterns, and discover relationships or correlations to develop evidence-based arguments or evaluate designs. The student is expected to:
 - 112.4.b.2.B: analyze data by identifying significant features and patterns
 - 112.4.b.12: Organisms and environments. The student knows that living organisms have basic needs that must be met through interactions within their environment. The student is expected to:
 - 112.4.b.12.A: describe how the physical characteristics of environments, including the amount of rainfall, support plants and animals within an ecosystem

Social Studies

- Kindergarten:
 - 113.11.c.14: Social studies skills. The student communicates in oral and visual forms. The student is expected to:
 - 113.11.c.14.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
- 1st Grade:
 - 113.12.c.17: Social studies skills. The student communicates in oral, visual, and written forms. The student is expected to:
 - 113.12.c.17.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
- 2nd Grade:
 - 113.13.c.16: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
 - 113.13.c.16.E: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;



- Kindergarten:
 - 110.2.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.2.b.1.C: share information and ideas by speaking audibly and clearly using the conventions of language
 - 110.2.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including taking turns
- 1st Grade:
 - 110.3.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.3.b.1.C: share information and ideas about the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language
 - 110.3.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including listening to others, speaking when recognized, and making appropriate contributions
- 2nd Grade:
 - 110.4.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.4.b.1.C: share information and ideas that focus on the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language
 - 110.4.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including listening to others, speaking when recognized, making appropriate contributions, and building on the ideas of others

Math

- 2nd Grade:
 - 111.4.b.3: Number and operations. The student applies mathematical process standards to recognize and represent fractional units and communicates how they are used to name parts of a whole. The student is expected to:
 - 111.4.b.3.A: partition objects into equal parts and name the parts, including halves, fourths, and eighths, using words;

Science

- Kindergarten:



- 112.2.b.1: Scientific and engineering practices. The student asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:
 - 112.2.b.1.A: ask questions and define problems based on observations or information from text, phenomena, models, or investigations
 - 112.2.b.1.B: use scientific practices to plan and conduct simple descriptive investigations and use engineering practices to design solutions to problems
 - 112.2.b.1.E: collect observations and measurements as evidence
 - 112.2.b.1.F: record and organize data using pictures, numbers, words, symbols, and simple graphs
 - 112.2.b.1.G: develop and use models to represent phenomena, objects, and processes or design a prototype for a solution to a problem
- 112.2.b.2: Scientific and engineering practices. The student analyzes and interprets data to derive meaning, identify features and patterns, and discover relationships or correlations to develop evidence-based arguments or evaluate designs. The student is expected to:
 - 112.2.b.2.A: identify basic advantages and limitations of models such as their size, properties, and materials
 - 112.2.b.2.B: analyze data by identifying significant features and patterns
 - 112.2.b.2.C: use mathematical concepts to compare two objects with common attributes
 - 112.2.b.2.D: evaluate a design or object using criteria to determine if it works as intended
- 112.2.b.5: Recurring Themes and Concepts. The student uses recurring themes and concepts to make connections across disciplines. The student is expected to:
 - 112.2.b.5.A: identify and use patterns to describe phenomena or design solutions
 - 112.2.b.5.G: describe how factors or conditions can cause objects, organisms, and systems to either change or stay the same
- 112.2.b.10: Earth and space. The student knows that the natural world includes earth materials and systems that can be observed. The student is expected to:
 - 112.2.b.10.A: describe and classify rocks by the observable properties of size, shape, color, and texture



- 112.2.b.11: Earth and space. The student knows that earth materials are important to everyday life. The student is expected to observe and generate examples of practical uses for rocks, soil, and water
- 112.2.b.12: Organisms and Environments: The student knows that plants and animals depend on the environment to meet their basic needs for survival. The student is expected to:
 - 112.2.b.12.A: observe and identify the dependence of plants on air, sunlight, water, nutrients in the soil, and space to grow
- 112.2.b.13: Organisms and Environments: The student knows that organisms resemble their parents and have structures and undergo processes that help them interact and survive within their environments. The student is expected to:
 - 112.2.b.13.A: identify the structures of plants, including roots, stems, leaves, flowers, and fruits
 - 112.2.b.13.C: identify and record the changes from seed, seedling, plant, flower, and fruit in a simple plant life cycle
- 1st Grade:
 - 112.3.b.1: Scientific and engineering practices. The student asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:
 - 112.3.b.1.A: ask questions and define problems based on observations or information from text, phenomena, models, or investigations
 - 112.3.b.1.B: use scientific practices to plan and conduct simple descriptive investigations and use engineering practices to design solutions to problems
 - 112.3.b.1.E: collect observations and measurements as evidence
 - 112.3.b.1.F: record and organize data using pictures, numbers, words, symbols, and simple graphs
 - 112.3.b.1.G: develop and use models to represent phenomena, objects, and processes or design a prototype for a solution to a problem
 - 112.3.b.2: Scientific and engineering practices. The student analyzes and interprets data to derive meaning, identify features and patterns, and discover relationships or correlations to develop evidence-based arguments or evaluate designs. The student is expected to:



- 112.3.b.2.A: identify basic advantages and limitations of models such as their size, properties, and materials
- 112.3.b.2.B: analyze data by identifying significant features and patterns
- 112.3.b.2.C: use mathematical concepts to compare two objects with common attributes
- 112.3.b.5: Recurring Themes and Concepts. The student uses recurring themes and concepts to make connections across disciplines. The student is expected to:
 - 112.3.b.5.A: identify and use patterns to describe phenomena or design solutions
 - 112.3.b.5.G: describe how factors or conditions can cause objects, organisms, and systems to either change or stay the same
- 112.3.b.10: Earth and space. The student knows that the natural world includes earth materials that can be observed in systems and processes. The student is expected to:
 - 112.3.b.10.A: investigate and document the properties of particle size, shape, texture, and color and the components of different types of soils such as topsoil, clay, and sand
- 112.3.b.11: Organisms and Environments: The student knows that earth materials and products made from these materials are important to everyday life. The student is expected to:
 - 112.3.b.11.A: identify and describe how plants, animals, and humans use rocks, soil, and water
- 112.3.b.12: Organisms and Environments: The student knows that the environment is composed of relationships between living organisms and nonliving components. The student is expected to:
 - 112.3.b.12.A: classify living and nonliving things based upon whether they have basic needs and produce young
 - 112.3.b.12.B: describe and record examples of interactions and dependence between living and nonliving components in terrariums or aquariums
 - 112.3.b.12.C: identify and illustrate how living organisms depend on each other through food chains
- 2nd Grade:
 - 112.4.b.1: Scientific and engineering practices. The student asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to



answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:

- 112.4.b.1.A: ask questions and define problems based on observations or information from text, phenomena, models, or investigations
- 112.4.b.1.B: use scientific practices to plan and conduct simple descriptive investigations and use engineering practices to design solutions to problems
- 112.4.b.1.E: collect observations and measurements as evidence
- 112.4.b.1.F: record and organize data using pictures, numbers, words, symbols, and simple graphs
- 112.4.b.1.G: develop and use models to represent phenomena, objects, and processes or design a prototype for a solution to a problem
- 112.4.b.2: Scientific and engineering practices. The student analyzes and interprets data to derive meaning, identify features and patterns, and discover relationships or correlations to develop evidence-based arguments or evaluate designs. The student is expected to:
 - 112.4.b.2.A: identify basic advantages and limitations of models such as their size, properties, and materials
 - 112.4.b.2.B: analyze data by identifying significant features and patterns
 - 112.4.b.2.C: use mathematical concepts to compare two objects with common attributes
- 112.4.b.5: Recurring Themes and Concepts. The student uses recurring themes and concepts to make connections across disciplines. The student is expected to:
 - 112.4.b.5.A: identify and use patterns to describe phenomena or design solutions
 - 112.4.b.5.G: describe how factors or conditions can cause objects, organisms, and systems to either change or stay the same
- 112.4.b.10: Earth and space. The student knows that the natural world includes earth materials that can be observed in systems and processes. The student is expected to:
 - 112.4.b.10.A: investigate and describe how wind and water move soil and rock particles across the Earth's surface such as wind blowing sand into dunes on a beach or a river carrying rocks as it flows
- 112.4.b.12: Organisms and Environments: The student describes patterns, cycles, systems, and relationships within environments. The student is expected to:



- 112.4.b.12.A: describe how the physical characteristics of environments, including the amount of rainfall, support plants and animals within an ecosystem

Social Studies

- Kindergarten:
 - 113.11.c.14: Social studies skills. The student communicates in oral and visual forms. The student is expected to:
 - 113.11.c.14.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
 - 113.11.c.14.D: create and interpret visuals, including pictures and maps;
- 1st Grade:
 - 113.12.c.17: Social studies skills. The student communicates in oral, visual, and written forms. The student is expected to:
 - 113.12.c.17.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
 - 113.12.c.17.D: create and interpret visual and written material;
- 2nd Grade:
 - 113.13.c.16: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
 - 113.13.c.16.E: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
 - 113.13.c.16.F: create written and visual material such as stories, maps, and graphic organizers to express ideas;

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English Language Arts

- Kindergarten:
 - 110.2.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.2.b.1.C: share information and ideas by speaking audibly and clearly using the conventions of language
 - 110.2.b.3: Developing and sustaining foundational language skills: listening, speaking, reading, writing, and thinking--vocabulary. The student uses newly acquired vocabulary expressively. The student is expected to:
 - 110.2.b.3.B: use illustrations and texts the student is able to read or hear to learn or clarify word meanings



- 110.2.b.5: Comprehension skills: listening, speaking, reading, writing, and thinking using multiple texts. The student uses metacognitive skills to both develop and deepen comprehension of increasingly complex texts. The student is expected to:
 - 110.2.b.5.G: evaluate details to determine what is most important with adult assistance
 - 110.2.b.5.H: synthesize information to create new understanding with adult assistance
- 110.2.b.6: Response skills: listening, speaking, reading, writing, and thinking using multiple texts. The student responds to an increasingly challenging variety of sources that are read, heard, or viewed. The student is expected to:
 - 110.2.b.6.E: interact with sources in meaningful ways such as illustrating or writing
 - 110.2.b.6.F: respond using newly acquired vocabulary as appropriate
- 1st Grade:
 - 110.3.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.3.b.1.C: share information and ideas about the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language
 - 110.3.b.2: Developing and sustaining foundational language skills: listening, speaking, reading, writing, and thinking--beginning reading and writing. The student develops word structure knowledge through phonological awareness, print concepts, phonics, and morphology to communicate, decode, and spell. The student is expected to:
 - 110.3.b.2.F: develop handwriting by printing words, sentences, and answers legibly leaving appropriate spaces between words
 - 110.3.b.3: Developing and sustaining foundational language skills: listening, speaking, reading, writing, and thinking--vocabulary. The student uses newly acquired vocabulary expressively. The student is expected to:
 - 110.3.b.3.B: use illustrations and texts the student is able to read or hear to learn or clarify word meanings
 - 110.3.b.6: Comprehension skills: listening, speaking, reading, writing, and thinking using multiple texts. The student uses metacognitive skills to both develop and deepen comprehension of increasingly complex texts. The student is expected to:
 - 110.3.b.6.G: evaluate details to determine what is most important with adult assistance



- 110.3.b.6.H: synthesize information to create new understanding with adult assistance
- 110.3.b.7: Response skills: listening, speaking, reading, writing, and thinking using multiple texts. The student responds to an increasingly challenging variety of sources that are read, heard, or viewed. The student is expected to:
 - 110.3.b.7.E: interact with sources in meaningful ways such as illustrating or writing
 - 110.3.b.7.F: respond using newly acquired vocabulary as appropriate
- 2nd Grade:
 - 110.4.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.4.b.1.C: share information and ideas that focus on the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language
 - 110.4.b.3: Developing and sustaining foundational language skills: listening, speaking, reading, writing, and thinking--vocabulary. The student uses newly acquired vocabulary expressively. The student is expected to:
 - 110.4.b.3.B: use context within and beyond a sentence to determine the meaning of unfamiliar words
 - 110.4.b.6: Comprehension skills: listening, speaking, reading, writing, and thinking using multiple texts. The student uses metacognitive skills to both develop and deepen comprehension of increasingly complex texts. The student is expected to:
 - 110.4.b.6.G: evaluate details read to determine key ideas
 - 110.4.b.6.H: synthesize information to create new understanding
 - 110.4.b.7: Response skills: listening, speaking, reading, writing, and thinking using multiple texts. The student responds to an increasingly challenging variety of sources that are read, heard, or viewed. The student is expected to:
 - 110.4.b.7.E: interact with sources in meaningful ways such as illustrating or writing
 - 110.4.b.7.F: respond using newly acquired vocabulary as appropriate

Science

- Kindergarten:
 - 112.2.b.12: Organisms and environments. The student knows that plants and animals depend on the environment to meet their basic needs for survival. The student is expected to:



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- 112.2.b.12.B: Observe and identify the dependence of animals on air, water, food, space, and shelter
- 1st Grade:
 - 112.3.b.12: Organisms and environments. The student knows that the living environment is composed of relationships between organisms and the life cycles that occur. The student is expected to:
 - 112.3.b.12.A: classify living and nonliving things based upon whether they have basic needs and produce young;
- 2nd Grade:
 - 112.4.b.12: Organisms and environments. The student knows that the environment is composed of relationships between living organisms and nonliving components. The student is expected to:
 - 112.4.b.12.B: create and describe food chains identifying producers and consumers to demonstrate how animals depend on other living things
 - 112.14b.13: Organisms and environments. The student knows that organisms have structures and undergo processes that help them interact and survive within their environments. The student is expected to:
 - 112.4.b.13.B: record and compare how the structures and behaviors of animals help them find and take in food, water, and air

Social Studies

- Kindergarten:
 - 113.11.c.14: Social studies skills. The student communicates in oral and visual forms. The student is expected to:
 - 113.11.c.14.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
- 1st Grade:
 - 113.12.c.17: Social studies skills. The student communicates in oral, visual, and written forms. The student is expected to:
 - 113.12.c.17.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
- 2nd Grade:
 - 113.13.c.16: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
 - 113.13.c.16.E: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;



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English Language Arts

- Kindergarten
 - 110.2.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.2.b.1.C: share information and ideas by speaking audibly and clearly using the conventions of language
 - 110.2.b.3: Developing and sustaining foundational language skills: listening, speaking, reading, writing, and thinking--vocabulary. The student uses newly acquired vocabulary expressively. The student is expected to:
 - 110.2.b.3.C: identify and use words that name actions; directions; positions; sequences; categories such as colors, shapes, and textures; and locations
- 1st Grade:
 - 110.3.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.3.b.1.C: share information and ideas about the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language
 - 110.3.b.3: Developing and sustaining foundational language skills: listening, speaking, reading, writing, and thinking--vocabulary. The student uses newly acquired vocabulary expressively. The student is expected to:
 - 110.3.b.3.D: identify and use words that name actions, directions, positions, sequences, categories, and locations
- 2nd Grade:
 - 110.4.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.4.b.1.C: share information and ideas that focus on the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language

Math

- Kindergarten:
 - 111.2.b.2: Number and operations. The student applies mathematical process standards to understand how to represent and compare whole numbers, the relative position and



magnitude of whole numbers, and relationships within the numeration system. The student is expected to:

- 111.2.b.2.A: count forward and backward to at least 20 with and without objects
- 111.2.b.2.B: read, write, and represent whole numbers from 0 to at least 20 with and without objects or pictures
- 111.2.b.2.C: count a set of objects up to at least 20 and demonstrate that the last number said tells the number of objects in the set regardless of their arrangement or order
- 111.2.b.2.H: use comparative language to describe two numbers up to 20 presented as written numerals
- 111.2.b.3: Number and operations. The student applies mathematical process standards to develop an understanding of addition and subtraction situations in order to solve problems. The student is expected to:
 - 111.2.b.3.A: model the action of joining to represent addition and the action of separating to represent subtraction
- 111.2.b.7: Geometry and measurement. The student applies mathematical process standards to directly compare measurable attributes. The student is expected to:
 - 111.2.b.7.A: give an example of a measurable attribute of a given object, including length, capacity, and weight
- 111.2.b.8: Data analysis. The student applies mathematical process standards to collect and organize data to make it useful for interpreting information. The student is expected to:
 - 111.2.b.8.A: collect, sort, and organize data into two or three categories
 - 111.2.b.8.B: use data to create real-object and picture graphs
 - 111.2.b.8.C: draw conclusions from real-object and picture graphs
- 1st Grade:
 - 111.3.b.2: Number and operations. The student applies mathematical process standards to represent and compare whole numbers, the relative position and magnitude of whole numbers, and relationships within the numeration system related to place value. The student is expected to:
 - 111.3.b.2.E: use place value to compare whole numbers up to 120 using comparative language
 - 111.3.b.3: Number and operations. The student applies mathematical process standards to develop and use strategies for whole number addition and subtraction computations in order to solve problems. The student is expected to:



- 111.3.b.3.D: apply basic fact strategies to add and subtract within 20, including making 10 and decomposing a number leading to a 10
- 111.3.b.7: Geometry and measurement. The student applies mathematical process standards to select and use units to describe length and time. The student is expected to:
 - 111.3.b.7.A: use measuring tools to measure the length of objects to reinforce the continuous nature of linear measurement
- 111.3.b.8: Data analysis. The student applies mathematical process standards to organize data to make it useful for interpreting information and solving problems. The student is expected to:
 - 111.3.b.8.A: collect, sort, and organize data in up to three categories using models/representations such as tally marks or T-charts
 - 111.3.b.8.B: use data to create picture and bar-type graphs
 - 111.3.b.8.C: draw conclusions and generate and answer questions using information from picture and bar-type graphs
- 2nd Grade:
 - 111.4.b.2: Number and operations. The student applies mathematical process standards to understand how to represent and compare whole numbers, the relative position and magnitude of whole numbers, and relationships within the numeration system related to place value. The student is expected to:
 - 111.4.b.2.D: use place value to compare and order whole numbers up to 1,200 using comparative language, numbers, and symbols ($>$, $<$, or $=$)
 - 111.4.b.4: Number and operations. The student applies mathematical process standards to develop and use strategies and methods for whole number computations in order to solve addition and subtraction problems with efficiency and accuracy. The student is expected to:
 - 111.4.b.4.A: recall basic facts to add and subtract within 20 with automaticity
 - 111.4.b.9: Geometry and measurement. The student applies mathematical process standards to select and use units to describe length, area, and time. The student is expected to:
 - 111.4.b.9.D: determine the length of an object to the nearest marked unit using rulers, yardsticks, meter sticks, or measuring tapes



- 111.4.b.10: Data analysis. The student applies mathematical process standards to organize data to make it useful for interpreting information and solving problems. The student is expected to:
 - 111.4.b.10.B: organize a collection of data with up to four categories using pictographs and bar graphs with intervals of one or more
 - 111.4.b.10.D: draw conclusions and make predictions from information in a graph

Science

- Kindergarten:
 - 112.2.b.2: Scientific and engineering practices. The student analyzes and interprets data to derive meaning, identify features and patterns, and discover relationships or correlations to develop evidence-based arguments or evaluate designs. The student is expected to:
 - 112.2.b.2.B: analyze data by identifying significant features and patterns
 - 112.2.b.6: Matter and its properties. The student knows that objects have physical properties that determine how they are described and classified. The student is expected to identify and record observable physical properties of objects, including shape, color, texture, and material, and generate ways to classify objects.
 - 112.2.b.12: Organisms and environments. The student knows that plants and animals depend on the environment to meet their basic needs for survival. The student is expected to:
 - 112.11.b.12.A: observe and identify the dependence of plants on air, sunlight, water, nutrients in the soil, and space to grow
 - 112.2.b.13: Organisms and environments. The student knows that organisms resemble their parents and have structures and undergo processes that help them interact and survive within their environments. The student is expected to:
 - 112.11.b.13.A: identify the structures of plants, including roots, stems, leaves, flowers, and fruits
 - 112.2.b.13.C: identify and record the changes from seed, seedling, plant, flower, and fruit in a simple plant life cycle
- 1st Grade:
 - 112.3.b.3: Scientific and engineering practices. The student analyzes and interprets data to derive meaning, identify features and patterns, and discover relationships or correlations to develop evidence-based arguments or evaluate designs. The student is expected to:



- 112.3.b.2.B: analyze data by identifying significant features and patterns
- 112.3.b.6: Matter and its properties. The student knows that objects have physical properties that determine how they are described and classified. The student is expected to:
 - 112.3.b.6.A: classify objects by observable physical properties, including, shape, color, and texture, and attributes such as larger and smaller and heavier and lighter
- 2nd Grade:
 - 12.4.b.2: Scientific and engineering practices. The student analyzes and interprets data to derive meaning, identify features and patterns, and discover relationships or correlations to develop evidence-based arguments or evaluate designs. The student is expected to:
 - 112.4.b.2.B: analyze data by identifying significant features and patterns
 - 112.4.b.12: Organisms and environments. The student knows that living organisms have basic needs that must be met through interactions within their environment. The student is expected to:
 - 112.4.b.12.A: describe how the physical characteristics of environments, including the amount of rainfall, support plants and animals within an ecosystem

Social Studies

- Kindergarten:
 - 113.11.c.14: Social studies skills. The student communicates in oral and visual forms. The student is expected to:
 - 113.11.c.14.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
- 1st Grade:
 - 113.12.c.17: Social studies skills. The student communicates in oral, visual, and written forms. The student is expected to:
 - 113.12.c.17.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
- 2nd Grade:
 - 113.13.c.16: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
 - 113.13.c.16.E: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;

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English Language Arts

- Kindergarten:
 - 110.2.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.2.b.1.C: share information and ideas by speaking audibly and clearly using the conventions of language
 - 110.2.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including taking turns
- 1st Grade:
 - 110.3.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.3.b.1.C: share information and ideas about the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language
 - 110.3.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including listening to others, speaking when recognized, and making appropriate contributions
- 2nd Grade:
 - 110.4.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.4.b.1.C: share information and ideas that focus on the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language
 - 110.4.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including listening to others, speaking when recognized, making appropriate contributions, and building on the ideas of others

Science

- Kindergarten:
 - 112.2.b.1: Scientific and engineering practices. The student asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:
 - 112.2.b.1.A: ask questions and define problems based on observations or information from text, phenomena, models, or investigations



- 112.2.b.1.B: use scientific practices to plan and conduct simple descriptive investigations and use engineering practices to design solutions to problems
- 112.2.b.1.E: collect observations and measurements as evidence
- 112.2.b.1.F: record and organize data using pictures, numbers, words, symbols, and simple graphs
- 112.2.b.1.G: develop and use models to represent phenomena, objects, and processes or design a prototype for a solution to a problem
- 112.2.b.2: Scientific and engineering practices. The student analyzes and interprets data to derive meaning, identify features and patterns, and discover relationships or correlations to develop evidence-based arguments or evaluate designs. The student is expected to:
 - 112.2.b.2.B: analyze data by identifying significant features and patterns
 - 112.2.b.2.C: use mathematical concepts to compare two objects with common attributes
- 112.2.b.3: Scientific and engineering practices. The student develops evidence-based explanations and communicates findings, conclusions, and proposed solutions. The student is expected to:
 - 112.2.b.3.A: develop explanations and propose solutions supported by data and models
 - 112.2.b.3.B: communicate explanations and solutions individually and collaboratively in a variety of settings and formats
- 112.2.b.5: Recurring Themes and Concepts. The student uses recurring themes and concepts to make connections across disciplines. The student is expected to:
 - 112.2.b.5.A: identify and use patterns to describe phenomena or design solutions
 - 112.2.b.5.D: examine the parts of a whole to define or model a system
- 112.2.b.12: Organisms and Environments: The student knows that plants and animals depend on the environment to meet their basic needs for survival. The student is expected to:
 - 112.2.b.12.A: observe and identify the dependence of plants on air, sunlight, water, nutrients in the soil, and space to grow
- 1st Grade:
 - 112.3.b.1: Scientific and engineering practices. The student asks questions, identifies problems, and plans and safely



conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:

- 112.3.b.1.A: ask questions and define problems based on observations or information from text, phenomena, models, or investigations
- 112.3.b.1.B: use scientific practices to plan and conduct simple descriptive investigations and use engineering practices to design solutions to problems
- 112.3.b.1.E: collect observations and measurements as evidence
- 112.3.b.1.F: record and organize data using pictures, numbers, words, symbols, and simple graphs
- 112.3.b.1.G: develop and use models to represent phenomena, objects, and processes or design a prototype for a solution to a problem
- 112.3.b.2: Scientific and engineering practices. The student analyzes and interprets data to derive meaning, identify features and patterns, and discover relationships or correlations to develop evidence-based arguments or evaluate designs. The student is expected to:
 - 112.3.b.2.A: identify basic advantages and limitations of models such as their size, properties, and materials
 - 112.3.b.2.B: analyze data by identifying significant features and patterns
- 112.3.b.3: Scientific and engineering practices. The student develops evidence-based explanations and communicates findings, conclusions, and proposed solutions. The student is expected to:
 - 112.3.b.3.A: develop explanations and propose solutions supported by data and models
 - 112.3.b.3.B: communicate explanations and solutions individually and collaboratively in a variety of settings and formats
- 112.3.b.5: Recurring Themes and Concepts. The student uses recurring themes and concepts to make connections across disciplines. The student is expected to:
 - 112.3.b.5.A: identify and use patterns to describe phenomena or design solutions
 - 112.3.b.5.D: examine the parts of a whole to define or model a system
- 112.3.b.11: Organisms and Environments: The student knows that earth materials and products made from these materials are important to everyday life. The student is expected to:



- 112.3.b.11.A: identify and describe how plants, animals, and humans use rocks, soil, and water
 - 112.3.b.11.B: explain why water conservation is important
 - 112.3.b.12: Organisms and Environments: The student knows that the environment is composed of relationships between living organisms and nonliving components. The student is expected to:
 - 112.3.b.12.C: identify and illustrate how living organisms depend on each other through food chains
- 2nd Grade:
 - 112.4.b.1: Scientific and engineering practices. The student asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:
 - 112.4.b.1.A: ask questions and define problems based on observations or information from text, phenomena, models, or investigations
 - 112.4.b.1.B: use scientific practices to plan and conduct simple descriptive investigations and use engineering practices to design solutions to problems
 - 112.4.b.1.E: collect observations and measurements as evidence
 - 112.4.b.1.F: record and organize data using pictures, numbers, words, symbols, and simple graphs
 - 112.4.b.1.G: develop and use models to represent phenomena, objects, and processes or design a prototype for a solution to a problem
 - 112.4.b.2: Scientific and engineering practices. The student analyzes and interprets data to derive meaning, identify features and patterns, and discover relationships or correlations to develop evidence-based arguments or evaluate designs. The student is expected to:
 - 112.4.b.2.A: identify basic advantages and limitations of models such as their size, properties, and materials
 - 112.4.b.2.B: analyze data by identifying significant features and patterns
 - 112.4.b.2.C: use mathematical concepts to compare two objects with common attributes
 - 112.4.b.3: Scientific and engineering practices. The student develops evidence-based explanations and communicates findings, conclusions, and proposed solutions. The student is expected to:



- 112.4.b.3.A: develop explanations and propose solutions supported by data and models
- 112.4.b.3.B: communicate explanations and solutions individually and collaboratively in a variety of settings and formats
- 112.4.b.5: Recurring Themes and Concepts. The student uses recurring themes and concepts to make connections across disciplines. The student is expected to:
 - 112.4.b.5.A: identify and use patterns to describe phenomena or design solutions
 - 112.4.b.5.D: examine the parts of a whole to define or model a system
- 112.4.b.11: Earth and space. The student knows that earth materials and products made from these materials are important to everyday life. The student is expected to:
 - 112.4.b.11.B: describe how human impact can be limited by making choices to conserve and properly dispose of materials such as reducing use of, reusing, or recycling paper, plastic, and metal
- 112.4.b.12: Organisms and Environments: The student describes patterns, cycles, systems, and relationships within environments. The student is expected to:
 - 112.4.b.12.B: create and describe food chains identifying producers and consumers to demonstrate how animals depend on other living things
- 112.4.b.13: Organisms and Environments: The student knows that organisms resemble their parents and have structures and undergo processes that help them interact and survive within their environments. The student is expected to:
 - 112.4.b.13.D: investigate and describe some of the unique life cycles of animals where young animals do not resemble their parents, including butterflies and frogs

Social Studies

- Kindergarten:
 - 113.11.c.14: Social studies skills. The student communicates in oral and visual forms. The student is expected to:
 - 113.11.c.14.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
 - 113.11.c.14.D: create and interpret visuals, including pictures and maps;
- 1st Grade:



- 113.12.c.17: Social studies skills. The student communicates in oral, visual, and written forms. The student is expected to:
 - 113.12.c.17.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
 - 113.12.c.17.D: create and interpret visual and written material;
- 2nd Grade:
 - 113.13.c.16: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
 - 113.13.c.16.E: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
 - 113.13.c.16.F: create written and visual material such as stories, maps, and graphic organizers to express ideas

WHO GREW MY SOUP?

English Language Arts

- Kindergarten:
 - 110.2.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.2.b.1.C: share information and ideas by speaking audibly and clearly using the conventions of language
 - 110.2.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including taking turns
- 1st Grade:
 - 110.3.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:
 - 110.3.b.1.C: share information and ideas about the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language
 - 110.3.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including listening to others, speaking when recognized, and making appropriate contributions
- 2nd Grade:
 - 110.4.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:



- 110.4.b.1.C: share information and ideas that focus on the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language
- 110.4.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including listening to others, speaking when recognized, making appropriate contributions, and building on the ideas of others

Math

- Kindergarten:
 - 111.2.b.8: Data analysis. The student applies mathematical process standards to collect and organize data to make it useful for interpreting information. The student is expected to:
 - 111.2.b.8.A: collect, sort, and organize data into two or three categories
 - 111.2.b.8.B: use data to create real-object and picture graphs
 - 111.2.b.8.C: draw conclusions from real-object and picture graphs
- 1st Grade:
 - 111.3.b.8: Data analysis. The student applies mathematical process standards to organize data to make it useful for interpreting information and solving problems. The student is expected to:
 - 111.3.b.8.B: use data to create picture and bar-type graphs
 - 111.3.b.8.C: draw conclusions and generate and answer questions using information from picture and bar-type graphs
- 2nd Grade:
 - 111.4.b.10: Data analysis. The student applies mathematical process standards to organize data to make it useful for interpreting information and solving problems. The student is expected to:
 - 111.4.b.10.B: organize a collection of data with up to four categories using pictographs and bar graphs with intervals of one or more
 - 111.4.b.10.D: draw conclusions and make predictions from information in a graph.

Science

- Kindergarten:
 - 112.2.b.1: Scientific and engineering practices. The student asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:



- 112.2.b.1.A: ask questions and define problems based on observations or information from text, phenomena, models, or investigations
- 112.2.b.1.E: collect observations and measurements as evidence
- 112.2.b.1.F: record and organize data using pictures, numbers, words, symbols, and simple graphs
- 112.2.b.1.G: develop and use models to represent phenomena, objects, and processes or design a prototype for a solution to a problem
- 112.2.b.2: Scientific and engineering practices. The student analyzes and interprets data to derive meaning, identify features and patterns, and discover relationships or correlations to develop evidence-based arguments or evaluate designs. The student is expected to:
 - 112.2.b.2.B: analyze data by identifying significant features and patterns
- 112.2.b.3: Scientific and engineering practices. The student develops evidence-based explanations and communicates findings, conclusions, and proposed solutions. The student is expected to:
 - 112.2.b.3.A: develop explanations and propose solutions supported by data and models
 - 112.2.b.3.B: communicate explanations and solutions individually and collaboratively in a variety of settings and formats
 - 112.2.b.3.C: listen actively to others' explanations to identify important evidence and engage respectfully in scientific discussion
- 112.2.b.5: Recurring Themes and Concepts. The student uses recurring themes and concepts to make connections across disciplines. The student is expected to:
 - 112.2.b.5.A: identify and use patterns to describe phenomena or design solutions
- 112.2.b.10: Earth and space. The student knows that the natural world includes earth materials and systems that can be observed. The student is expected to:
 - 112.2.b.10.B: observe and describe weather changes from day to day and over seasons
- 112.2.b.13: Organisms and environments. The student knows that organisms resemble their parents and have structures and undergo processes that help them interact and survive within their environments. The student is expected to:
 - 112.2.b.13.D: identify ways that young plants resemble the parent plant



- 1st Grade:
 - 112.3.b.1: Scientific and engineering practices. The student asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:
 - 112.3.b.1.A: ask questions and define problems based on observations or information from text, phenomena, models, or investigations
 - 112.3.b.1.E: collect observations and measurements as evidence
 - 112.3.b.1.F: record and organize data using pictures, numbers, words, symbols, and simple graphs
 - 112.3.b.1.G: develop and use models to represent phenomena, objects, and processes or design a prototype for a solution to a problem
 - 112.3.b.2: Scientific and engineering practices. The student analyzes and interprets data to derive meaning, identify features and patterns, and discover relationships or correlations to develop evidence-based arguments or evaluate designs. The student is expected to:
 - 112.3.b.2.A: identify basic advantages and limitations of models such as their size, properties, and materials
 - 112.3.b.3: Scientific and engineering practices. The student develops evidence-based explanations and communicates findings, conclusions, and proposed solutions. The student is expected to:
 - 112.3.b.3.A: develop explanations and propose solutions supported by data and models
 - 112.3.b.3.B: communicate explanations and solutions individually and collaboratively in a variety of settings and formats
 - 112.3.b.3.C: listen actively to others' explanations to identify important evidence and engage respectfully in scientific discussion
 - 112.3.b.5: Recurring Themes and Concepts. The student uses recurring themes and concepts to make connections across disciplines. The student is expected to:
 - 112.3.b.5.A: identify and use patterns to describe phenomena or design solutions
 - 112.3.b.10: Earth and space. The student knows that the natural world includes earth materials that can be observed in systems and processes. The student is expected to:
 - 112.3.b.10.D: describe and record observable characteristics of weather, including hot or cold, clear or



cloudy, calm or windy, and rainy or icy, and explain the impact of weather on daily choices

○ 2nd Grade:

- 112.4.b.1: Scientific and engineering practices. The student asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:
 - 112.4.b.1.A: ask questions and define problems based on observations or information from text, phenomena, models, or investigations
 - 112.4.b.1.E: collect observations and measurements as evidence
 - 112.4.b.1.F: record and organize data using pictures, numbers, words, symbols, and simple graphs
 - 112.4.b.1.G: develop and use models to represent phenomena, objects, and processes or design a prototype for a solution to a problem
- 112.4.b.2: Scientific and engineering practices. The student analyzes and interprets data to derive meaning, identify features and patterns, and discover relationships or correlations to develop evidence-based arguments or evaluate designs. The student is expected to:
 - 112.4.b.2.A: identify basic advantages and limitations of models such as their size, properties, and materials
- 112.4.b.3: Scientific and engineering practices. The student develops evidence-based explanations and communicates findings, conclusions, and proposed solutions. The student is expected to:
 - 112.4.b.3.A: develop explanations and propose solutions supported by data and models
 - 112.4.b.3.B: communicate explanations and solutions individually and collaboratively in a variety of settings and formats
 - 112.4.b.3.C: listen actively to others' explanations to identify important evidence and engage respectfully in scientific discussion
- 112.4.b.5: Recurring Themes and Concepts. The student uses recurring themes and concepts to make connections across disciplines. The student is expected to:
 - 112.4.b.5.A: identify and use patterns to describe phenomena or design solutions
- 112.4.b.10: Earth and space. The student knows that the natural world includes earth materials that can be observed in systems and processes. The student is expected to:



- 112.4.b.10.B: measure, record, and graph weather information, including temperature and precipitation

Social Studies

- Kindergarten:
 - 113.11.c.5: Economics. The student understands the difference between human needs and wants and how they are met. The student is expected to:
 - 113.11.c.5.A: identify basic human needs of food, clothing, and shelter;
 - 113.11.c.14: Social studies skills. The student communicates in oral and visual forms. The student is expected to:
 - 113.11.c.14.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
 - 113.11.c.14.D: create and interpret visuals, including pictures and maps;
- 1st Grade:
 - 113.12.c.17: Social studies skills. The student communicates in oral, visual, and written forms. The student is expected to:
 - 113.12.c.17.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
 - 113.12.c.17.D: create and interpret visual and written material;
- 2nd Grade:
 - 113.13.c.7: Economics. The student understands the roles of producers and consumers in the production of goods and services. The student is expected to:
 - 113.13.c.7.C: trace the development of a product from a natural resource to a finished product;
 - 113.13.c.16: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
 - 113.13.c.16.E: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
 - 113.13.c.16.F: create written and visual material such as stories, maps, and graphic organizers to express ideas;

WHY PEOPLE NEED PLANTS

English Language Arts

- Kindergarten:
 - 110.2.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language.



The student develops oral language through listening, speaking, and discussion. The student is expected to:

- 110.2.b.1.C: share information and ideas by speaking audibly and clearly using the conventions of language
- 110.2.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including taking turns

○ 1st Grade:

▪ 110.3.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:

- 110.3.b.1.C: share information and ideas about the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language
- 110.3.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including listening to others, speaking when recognized, and making appropriate contributions

○ 2nd Grade:

▪ 110.4.b.1: Developing and sustaining foundational language skills: listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion. The student is expected to:

- 110.4.b.1.C: share information and ideas that focus on the topic under discussion, speaking clearly at an appropriate pace and using the conventions of language
- 110.4.b.1.D: work collaboratively with others by following agreed-upon rules for discussion, including listening to others, speaking when recognized, making appropriate contributions, and building on the ideas of others

Science

○ Kindergarten:

▪ 112.2.b.1: Scientific and engineering practices. The student asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:

- 112.2.b.1.A: ask questions and define problems based on observations or information from text, phenomena, models, or investigations
- 112.2.b.1.G: develop and use models to represent phenomena, objects, and processes or design a prototype for a solution to a problem

▪ 112.2.b.3: Scientific and engineering practices. The student develops evidence-based explanations and communicates



findings, conclusions, and proposed solutions. The student is expected to:

- 112.2.b.3.B: communicate explanations and solutions individually and collaboratively in a variety of settings and formats
- 112.2.b.3.C: listen actively to others' explanations to identify important evidence and engage respectfully in scientific discussion
- 112.2.b.5: Recurring Themes and Concepts. The student uses recurring themes and concepts to make connections across disciplines. The student is expected to:
 - 112.2.b.5.A: identify and use patterns to describe phenomena or design solutions
- 1st Grade:
 - 112.3.b.1: Scientific and engineering practices. The student asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:
 - 112.3.b.1.A: ask questions and define problems based on observations or information from text, phenomena, models, or investigations
 - 112.3.b.1.G: develop and use models to represent phenomena, objects, and processes or design a prototype for a solution to a problem
 - 112.3.b.3: Scientific and engineering practices. The student develops evidence-based explanations and communicates findings, conclusions, and proposed solutions. The student is expected to:
 - 112.3.b.3.B: communicate explanations and solutions individually and collaboratively in a variety of settings and formats
 - 112.3.b.3.C: listen actively to others' explanations to identify important evidence and engage respectfully in scientific discussion
 - 112.3.b.5: Recurring Themes and Concepts. The student uses recurring themes and concepts to make connections across disciplines. The student is expected to:
 - 112.3.b.5.A: identify and use patterns to describe phenomena or design solutions
- 2nd Grade:
 - 112.4.b.1: Scientific and engineering practices. The student asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to



answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:

- 112.4.b.1.A: ask questions and define problems based on observations or information from text, phenomena, models, or investigations
- 112.4.b.1.G: develop and use models to represent phenomena, objects, and processes or design a prototype for a solution to a problem
- 112.4.b.3: Scientific and engineering practices. The student develops evidence-based explanations and communicates findings, conclusions, and proposed solutions. The student is expected to:
 - 112.4.b.3.B: communicate explanations and solutions individually and collaboratively in a variety of settings and formats
 - 112.4.b.3.C: listen actively to others' explanations to identify important evidence and engage respectfully in scientific discussion
- 112.4.b.5: Recurring Themes and Concepts. The student uses recurring themes and concepts to make connections across disciplines. The student is expected to:
 - 112.4.b.5.A: identify and use patterns to describe phenomena or design solutions

Social Studies

- Kindergarten:
 - 113.11.c.14: Social studies skills. The student communicates in oral and visual forms. The student is expected to:
 - 113.11.c.14.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;
 - 113.11.c.14.D: create and interpret visuals, including pictures and maps;
- 1st Grade:
 - 113.12.c.9: Economics. The student understands the value of work. The student is expected to:
 - 113.12.c.9.B: describe how various jobs contribute to the production of goods and services.
 - 113.12.c.17: Social studies skills. The student communicates in oral, visual, and written forms. The student is expected to:
 - 113.12.c.17.C: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;



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- 113.12.c.17.D: create and interpret visual and written material;
- 2nd Grade:
 - 113.13.c.7: Economics. The student understands the roles of producers and consumers in the production of goods and services. The student is expected to:
 - 113.13.c.7.C: trace the development of a product from a natural resource to a finished product.
 - 113.13.c.16: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
 - 113.13.c.16.E: communicate information visually, orally, or in writing based on knowledge and experiences in social studies;