



**TEXAS FARM BUREAU®**

## **National Ag in the Classroom Lesson Matrix**

### **TEKS Alignment: 3<sup>rd</sup> Grade – 5<sup>th</sup> Grade**

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## **AN APPLE A DAY KEEPS THE DOCTOR AWAY**

- English Language Arts
  - 3<sup>rd</sup> Grade:
    - 110.5.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:
      - 110.5.b.1.C: speak coherently about the topic under discussion, employing eye contact, speaking rate, volume, enunciation, and the conventions of language to communicate ideas effectively;
      - 110.5.b.1.D: work collaboratively with others by following agreed-upon rules, norms, and protocols;
      - 110.5.b.1.E: develop social communication such as conversing politely in all situations;
    - 110.5.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.
    - 110.5.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:
      - 110.5.b.6.G: evaluate details read to determine key ideas;
    - 110.5.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:
      - 110.5.b.12.B: compose informational texts, including brief compositions that convey information about a topic, using a clear central idea and genre characteristics and craft;
      - 110.5.b.12.C: compose argumentative texts, including opinion essays, using genre characteristics and craft;



- 110.5.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:
  - 110.5.b.13.C: identify and gather relevant information from a variety of sources;
- 4<sup>th</sup> Grade:
  - 110.6.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:
    - 110.6.b.1.C: express an opinion supported by accurate information, employing eye contact, speaking rate, volume, enunciation, and the conventions of language to communicate ideas effectively; and
    - 110.6.b.1.D: work collaboratively with others to develop a plan of shared responsibilities.
  - 110.6.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.
  - 110.6.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:
    - 110.6.b.6.G: evaluate details read to determine key ideas;
  - 110.6.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:
    - 110.6.b.12.B: compose informational texts, including brief compositions that convey information about a topic, using a clear central idea and genre characteristics and craft;
    - 110.6.b.12.C: compose argumentative texts, including opinion essays, using genre characteristics and craft;
  - 110.6.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:



- 110.6.b.13.C: identify and gather relevant information from a variety of sources;
- 5<sup>th</sup> Grade:
  - 110.7.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:
    - 110.7.b.1.D: work collaboratively with others to develop a plan of shared responsibilities.
  - 110.7.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.
  - 110.7.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:
    - 110.7.b.6.G: evaluate details read to determine key ideas;
  - 110.7.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:
    - 110.7.b.12.B: compose informational texts, including brief compositions that convey information about a topic, using a clear central idea and genre characteristics and craft;
    - 110.7.b.12.C: compose argumentative texts, including opinion essays, using genre characteristics and craft;
  - 110.7.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:
    - 110.7.b.13.C: identify and gather relevant information from a variety of sources;
- Social Studies
  - 3<sup>rd</sup> Grade:
    - 113.14.b.17: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including electronic technology. The student is expected to:
      - 113.14.b.17.B: sequence and categorize information;



- 113.14.b.18: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
  - 113.14.b.18.A: express ideas orally based on knowledge and experiences;
  - 113.14.b.18.C: use standard grammar, spelling, sentence structure, and punctuation.
- 4<sup>th</sup> Grade:
  - 113.15.b.21: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including electronic technology. The student is expected to:
    - 113.15.b.21.B: analyze information by sequencing, categorizing, identifying cause-and-effect relationships, comparing, contrasting, finding the main idea, summarizing, making generalizations and predictions, and drawing inferences and conclusions;
    - 113.15.b.21.C: organize and interpret information in outlines, reports, databases, and visuals, including graphs, charts, timelines, and maps;
  - 113.15.b.22: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
    - 113.15.b.22.C: express ideas orally based on research and experiences;
    - 113.15.b.22.D: create written and visual material such as journal entries, reports, graphic organizers, outlines, and bibliographies;
    - 113.15.b.22.E: use standard grammar, spelling, sentence structure, and punctuation.
- 5<sup>th</sup> Grade:
  - 113.16.b.24: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including electronic technology. The student is expected to:
    - 113.16.b.24.B: analyze information by sequencing, categorizing, identifying cause-and-effect relationships, comparing, contrasting, finding the main idea, summarizing, making generalizations and predictions, and drawing inferences and conclusions;
    - 113.16.b.24.C: organize and interpret information in outlines, reports, databases, and visuals, including graphs, charts, timelines, and maps;
  - 113.16.b.25: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
    - 113.16.b.25.C: express ideas orally based on research and experiences;



- 113.16.b.25.D: create written and visual material such as journal entries, reports, graphic organizers, outlines, and bibliographies; and
- 113.16.b.25.E: use standard grammar, spelling, sentence structure, and punctuation.

## **AT HOME ON THE RANGE**

- English Language Arts

- 3<sup>rd</sup> Grade:

- 110.5.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:
      - 110.5.b.1.C: speak coherently about the topic under discussion, employing eye contact, speaking rate, volume, enunciation, and the conventions of language to communicate ideas effectively;
      - 110.5.b.1.D: work collaboratively with others by following agreed-upon rules, norms, and protocols;
      - 110.5.b.1.E: develop social communication such as conversing politely in all situations;
    - 110.5.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.
    - 110.5.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:
      - 110.5.b.6.G: evaluate details read to determine key ideas;
      - 110.5.b.6.H: synthesize information to create new understanding;
    - 110.5.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:
      - 110.5.b.7.F: respond using newly acquired vocabulary as appropriate;

- 4<sup>th</sup> Grade:

- 110.6.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:

- 110.6.b.1.D: work collaboratively with others to develop a plan of shared responsibilities.
- 110.6.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.
- 110.6.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:
  - 110.6.b.6.G: evaluate details read to determine key ideas;
  - 110.5.b.6.H: synthesize information to create new understanding;
- 110.6.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:
  - 110.6.b.7.F: respond using newly acquired vocabulary as appropriate;

○ 5<sup>th</sup> Grade:

- 110.7.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:
  - 110.7.b.1.D: work collaboratively with others to develop a plan of shared responsibilities.
- 110.7.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.
- 110.7.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:
  - 110.7.b.6.G: evaluate details read to determine key ideas;
  - 110.7.b.6.H: synthesize information to create new understanding;



- 110.7.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:
  - 110.7.b.7.F: respond using newly acquired vocabulary as appropriate;
- Math
  - 3<sup>rd</sup> Grade:
    - 111.5.b.1: Mathematical process standards. The student uses mathematical processes to acquire and demonstrate mathematical understanding. The student is expected to:
      - 111.5.b.1.A: apply mathematics to problems arising in everyday life, society, and the workplace;
      - 111.5.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;
    - 111.5.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 problems with efficiency and accuracy. The student is expected to:
      - 111.5.b.4.A: solve with fluency one-step and two-step problems involving addition and subtraction within 1,000 using strategies based on place value, properties of operations, and the relationship between addition and subtraction;
      - 111.5.b.4.G: use strategies and algorithms, including the standard algorithm, to multiply a two-digit number by a one-digit number. Strategies may include mental math, partial products, and the commutative, associative, and distributive properties;
      - 111.5.b.4.K: solve one-step and two-step problems involving multiplication and division within 100 using strategies based on objects; pictorial models, including arrays, area models, and equal groups; properties of operations; or recall of facts.
  - 4<sup>th</sup> Grade:
    - 111.6.b.1: Mathematical process standards. The student uses mathematical processes to acquire and demonstrate mathematical understanding. The student is expected to:
      - 111.6.b.1.A: apply mathematics to problems arising in everyday life, society, and the workplace;





- 111.6.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;
  - 111.6.b.2: Number and operations. The student applies mathematical process standards to represent, compare, and order whole numbers and decimals and understand relationships related to place value. The student is expected to:
    - 111.6.b.2.D: round whole numbers to a given place value through the hundred thousands place;
  - 111.6.b.4: Number and operations. The student applies mathematical process standards to develop and use strategies and methods for whole number computations and decimal sums and differences in order to solve problems with efficiency and accuracy. The student is expected to:
    - 111.6.b.4.A: add and subtract whole numbers and decimals to the hundredths place using the standard algorithm;
    - 111.6.b.4.D: use strategies and algorithms, including the standard algorithm, to multiply up to a four-digit number by a one-digit number and to multiply a two-digit number by a two-digit number. Strategies may include mental math, partial products, and the commutative, associative, and distributive properties;
    - 111.6.b.4.H: solve with fluency one- and two-step problems involving multiplication and division, including interpreting remainders.
- 5<sup>th</sup> Grade:
  - 111.7.b.1: Mathematical process standards. The student uses mathematical processes to acquire and demonstrate mathematical understanding. The student is expected to:
    - 111.7.b.1.A: apply mathematics to problems arising in everyday life, society, and the workplace;
    - 111.7.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;
  - 111.7.b.3: Number and operations. The student applies mathematical process standards to develop and use strategies and methods for positive rational number computations in order to solve problems with efficiency and accuracy. The student is expected to:
    - 111.7.b.3.B: multiply with fluency a three-digit number by a two-digit number using the standard algorithm;



- 111.7.b.3.E: solve for products of decimals to the hundredths, including situations involving money, using strategies based on place-value understandings, properties of operations, and the relationship to the multiplication of whole numbers;
- 111.7.b.3.K: add and subtract positive rational numbers fluently;
- Science
  - 3<sup>rd</sup> Grade:
    - 112.14.b.2: Scientific investigation and reasoning. The student uses scientific practices during laboratory and outdoor investigations. The student is expected to:
      - 112.14.b.2.A: plan and implement descriptive investigations, including asking and answering questions, making inferences, and selecting and using equipment or technology needed, to solve a specific problem in the natural world;
      - 112.14.b.2.B: collect and record data by observing and measuring using the metric system and recognize differences between observed and measured data;
      - 112.14.b.2.F: communicate valid conclusions supported by data in writing, by drawing pictures, and through verbal discussion.
    - 112.14.b.9: Organisms and environments. The student knows and can describe patterns, cycles, systems, and relationships within the environments. The student is expected to:
      - 112.14.b.9.A: observe and describe the physical characteristics of environments and how they support populations and communities of plants and animals within an ecosystem;
    - 112.14.b.10: Organisms and environments. The student knows that organisms undergo similar life processes and have structures that help them survive within their environments. The student is expected to:
      - 112.14.b.10.A: explore how structures and functions of plants and animals allow them to survive in a particular environment; and
  - 4<sup>th</sup> Grade:
    - 112.15.b.2: Scientific investigation and reasoning. The student uses scientific practices during laboratory and outdoor investigations. The student is expected to:
      - 112.15.b.2.A: plan and implement descriptive investigations, including asking well defined questions, making inferences, and selecting and using appropriate equipment or technology to answer his/her questions;



- 112.15.b.2.B: collect and record data by observing and measuring, using the metric system, and using descriptive words and numerals such as labeled drawings, writing, and concept maps;
  - 112.15.b.2.F: communicate valid oral and written results supported by data.
- 5<sup>th</sup> Grade:
  - 112.16.b.2: Scientific investigation and reasoning. The student uses scientific practices during laboratory and outdoor investigations. The student is expected to:
    - 112.16.b.2.A: describe, plan, and implement simple experimental investigations testing one variable;
    - 112.16.b.2.C: collect and record information using detailed observations and accurate measuring;
    - 112.16.b.2.D: analyze and interpret information to construct reasonable explanations from direct (observable) and indirect (inferred) evidence;
    - 112.16.b.2.F: communicate valid conclusions in both written and verbal forms;
  - 112.16.b.9: Organisms and environments. The student knows that there are relationships, systems, and cycles within environments. The student is expected to:
    - 112.16.b.9.C: predict the effects of changes in ecosystems caused by living organisms, including humans, such as the overpopulation of grazers or the building of highways; and
- Social Studies
  - 3<sup>rd</sup> Grade:
    - 113.14.b.3: History. The student understands the concepts of time and chronology. The student is expected to:
      - 113.14.b.3.A: use vocabulary related to chronology, including past, present, and future times;
    - 113.14.b.5: Geography. The student understands the concepts of location, distance, and direction on maps and globes. The student is expected to:
      - 113.14.b.5.D: create and interpret maps of places and regions that contain map elements, including a title, compass rose, legend, scale, and grid system.
    - 113.14.b.17: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including electronic technology. The student is expected to:



- 113.14.b.17.E: interpret and create visuals, including graphs, charts, tables, timelines, illustrations, and maps;
  - 113.14.b.18: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
    - 113.14.b.18.A: express ideas orally based on knowledge and experiences;
- 4<sup>th</sup> Grade:
  - 113.15.b.21: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including electronic technology. The student is expected to:
    - 113.15.b.21.B: analyze information by sequencing, categorizing, identifying cause-and-effect relationships, comparing, contrasting, finding the main idea, summarizing, making generalizations and predictions, and drawing inferences and conclusions;
    - 113.15.b.21.C: organize and interpret information in outlines, reports, databases, and visuals, including graphs, charts, timelines, and maps;
  - 113.15.b.22: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
    - 113.15.b.22.C: express ideas orally based on research and experiences;
- 5<sup>th</sup> Grade:
  - 113.16.b.8: Geography. The student understands the location and patterns of settlement and the geographic factors that influence where people live. The student is expected to:
    - 113.16.b.8.A: identify and describe the types of settlement and patterns of land use in the United States;
  - 113.16.b.24: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including electronic technology. The student is expected to:
    - 113.16.b.24.B: analyze information by sequencing, categorizing, identifying cause-and-effect relationships, comparing, contrasting, finding the main idea, summarizing, making generalizations and predictions, and drawing inferences and conclusions;
    - 113.16.b.24.C: organize and interpret information in outlines, reports, databases, and visuals, including graphs, charts, timelines, and maps;
  - 113.16.b.25: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:



- 113.16.b.25.C: express ideas orally based on research and experiences;

## **BUILD IT BETTER**

- English Language Arts

- 3<sup>rd</sup> Grade:

- 110.5.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:
      - 110.5.b.1.C: speak coherently about the topic under discussion, employing eye contact, speaking rate, volume, enunciation, and the conventions of language to communicate ideas effectively;
      - 110.5.b.1.D: work collaboratively with others by following agreed-upon rules, norms, and protocols;
    - 110.5.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:
      - 110.5.b.6.G: evaluate details read to determine key ideas;
    - 110.5.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:
      - 110.5.b.7.E: interact with sources in meaningful ways such as notetaking, annotating, freewriting, or illustrating;
      - 110.5.b.7.F: respond using newly acquired vocabulary as appropriate;
    - 110.5.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:
      - 110.5.b.13.C: identify and gather relevant information from a variety of sources;
      - 110.5.b.13.E: demonstrate understanding of information gathered;
      - 110.5.b.13.H: use an appropriate mode of delivery, whether written, oral, or multimodal, to present results.

- 4<sup>th</sup> Grade:



- 110.6.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:
  - 110.6.b.1.D: work collaboratively with others to develop a plan of shared responsibilities.
- 110.6.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:
  - 110.6.b.6.G: evaluate details read to determine key ideas;
- 110.6.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:
  - 110.6.b.7.E: interact with sources in meaningful ways such as notetaking, annotating, freewriting, or illustrating;
  - 110.6.b.7.F: respond using newly acquired vocabulary as appropriate;
- 110.6.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:
  - 110.6.b.13.C: identify and gather relevant information from a variety of sources;
  - 110.6.b.13.E: identify primary and secondary sources;
  - 110.6.b.13.H: use an appropriate mode of delivery, whether written, oral, or multimodal, to present results.
- 5<sup>th</sup> Grade:
  - 110.7.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:
    - 110.7.b.1.C: give an organized presentation employing eye contact, speaking rate, volume, enunciation, natural gestures, and conventions of language to communicate ideas effectively;
    - 110.7.b.1.D: work collaboratively with others to develop a plan of shared responsibilities.
  - 110.7.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:

- 110.7.b.6.G: evaluate details read to determine key ideas;
- 110.7.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:
  - 110.7.b.7.E: interact with sources in meaningful ways such as notetaking, annotating, freewriting, or illustrating;
  - 110.7.b.7.F: respond using newly acquired vocabulary as appropriate;
- 110.7.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:
  - 110.7.b.13.C: identify and gather relevant information from a variety of sources;
  - 110.7.b.13.E: demonstrate understanding of information gathered;
  - 110.7.b.13.H: use an appropriate mode of delivery, whether written, oral, or multimodal, to present results.

- Math

- 4<sup>th</sup> Grade:

- 111.6.b.8: Geometry and measurement. The student applies mathematical process standards to select appropriate customary and metric units, strategies, and tools to solve problems involving measurement. The student is expected to:
      - 111.6.b.8.C: solve problems that deal with measurements of length, intervals of time, liquid volumes, mass, and money using addition, subtraction, multiplication, or division as appropriate.

- 5<sup>th</sup> Grade:

- 111.7.b.7: Geometry and measurement. The student applies mathematical process standards to select appropriate units, strategies, and tools to solve problems involving measurement. The student is expected to solve problems by calculating conversions within a measurement system, customary or metric.

- Social Studies

- 3<sup>rd</sup> Grade:

- 113.14.b.18: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:



- 113.14.b.18.A: express ideas orally based on knowledge and experiences;
  - 113.14.b.19: Social studies skills. The student uses problem-solving and decision-making skills, working independently and with others, in a variety of settings. The student is expected to:
    - 113.14.b.19.A: use a problem-solving process to identify a problem, gather information, list and consider options, consider advantages and disadvantages, choose and implement a solution, and evaluate the effectiveness of the solution;
- 4<sup>th</sup> Grade:
  - 113.15.b.22: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
    - 113.15.b.22.C: express ideas orally based on research and experiences;
    - 113.15.b.22.D: create written and visual material such as journal entries, reports, graphic organizers, outlines, and bibliographies;
    - 113.15.b.22.E: use standard grammar, spelling, sentence structure, and punctuation.
  - 113.15.b.23: Social studies skills. The student uses problem-solving and decision-making skills, working independently and with others, in a variety of settings. The student is expected to:
    - 113.15.b.23.A: use a problem-solving process to identify a problem, gather information, list and consider options, consider advantages and disadvantages, choose and implement a solution, and evaluate the effectiveness of the solution;
- 5<sup>th</sup> Grade:
  - 113.6.b.25: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
    - 113.6.b.25.C: express ideas orally based on research and experiences;
    - 113.6.b.25.D: create written and visual material such as journal entries, reports, graphic organizers, outlines, and bibliographies;
    - 113.6.b.25.E: use standard grammar, spelling, sentence structure, and punctuation.
  - 113.16.b.26: Social studies skills. The student uses problem-solving and decision-making skills, working independently and with others, in a variety of settings. The student is expected to:
    - 113.6.b.26.A: use a problem-solving process to identify a problem, gather information, list and consider options, consider advantages





and disadvantages, choose and implement a solution, and evaluate the effectiveness of the solution;

## **BUILD A CALF**

- English Language Arts

- 3<sup>rd</sup> Grade:

- 110.5.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:
      - 110.5.b.1.C: speak coherently about the topic under discussion, employing eye contact, speaking rate, volume, enunciation, and the conventions of language to communicate ideas effectively;
      - 110.5.b.1.D: work collaboratively with others by following agreed-upon rules, norms, and protocols;
    - 110.5.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:
      - 110.5.b.6.G: evaluate details read to determine key ideas;
    - 110.5.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:
      - 110.5.b.7.E: interact with sources in meaningful ways such as notetaking, annotating, freewriting, or illustrating;
      - 110.5.b.7.F: respond using newly acquired vocabulary as appropriate;
    - 110.5.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:
      - 110.5.b.13.C: identify and gather relevant information from a variety of sources;
      - 110.5.b.13.E: demonstrate understanding of information gathered;
      - 110.5.b.13.H: use an appropriate mode of delivery, whether written, oral, or multimodal, to present results.

- 4<sup>th</sup> Grade:



- 110.6.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:
  - 110.6.b.1.D: work collaboratively with others to develop a plan of shared responsibilities.
- 110.6.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:
  - 110.6.b.6.G: evaluate details read to determine key ideas;
- 110.6.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:
  - 110.6.b.7.E: interact with sources in meaningful ways such as notetaking, annotating, freewriting, or illustrating;
  - 110.6.b.7.F: respond using newly acquired vocabulary as appropriate;
- 110.6.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:
  - 110.6.b.13.C: identify and gather relevant information from a variety of sources;
  - 110.6.b.13.E: identify primary and secondary sources;
  - 110.6.b.13.H: use an appropriate mode of delivery, whether written, oral, or multimodal, to present results.
- 5<sup>th</sup> Grade:
  - 110.7.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:
    - 110.7.b.1.D: work collaboratively with others to develop a plan of shared responsibilities.
  - 110.7.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:
    - 110.7.b.6.G: evaluate details read to determine key ideas;



- 110.7.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:
  - 110.7.b.7.E: interact with sources in meaningful ways such as notetaking, annotating, freewriting, or illustrating;
  - 110.7.b.7.F: respond using newly acquired vocabulary as appropriate;
- 110.7.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:
  - 110.7.b.13.C: identify and gather relevant information from a variety of sources;
  - 110.7.b.13.E: demonstrate understanding of information gathered;
  - 110.7.b.13.H: use an appropriate mode of delivery, whether written, oral, or multimodal, to present results.
- Math
  - 3<sup>rd</sup> Grade:
    - 111.5.b.1: Mathematical process standards. The student uses mathematical processes to acquire and demonstrate mathematical understanding. The student is expected to:
      - 111.5.b.1.A: apply mathematics to problems arising in everyday life, society, and the workplace;
  - 4<sup>th</sup> Grade:
    - 111.6.b.1: Mathematical process standards. The student uses mathematical processes to acquire and demonstrate mathematical understanding. The student is expected to:
      - 111.6.b.1.A: apply mathematics to problems arising in everyday life, society, and the workplace;
    - 111.6.b.4: Number and operations. The student applies mathematical process standards to develop and use strategies and methods for whole number computations and decimal sums and differences in order to solve problems with efficiency and accuracy. The student is expected to:
      - 111.6.b.4.D: use strategies and algorithms, including the standard algorithm, to multiply up to a four-digit number by a one-digit number and to multiply a two-digit number by a two-digit



number. Strategies may include mental math, partial products, and the commutative, associative, and distributive properties;

- 111.6.b.4.F: use strategies and algorithms, including the standard algorithm, to divide up to a four-digit dividend by a one-digit divisor;
- 5<sup>th</sup> Grade:
  - 111.7.b.1: Mathematical process standards. The student uses mathematical processes to acquire and demonstrate mathematical understanding. The student is expected to:
    - 111.7.b.1.A: apply mathematics to problems arising in everyday life, society, and the workplace;
- Science
  - 4<sup>th</sup> Grade:
    - 112.15.b.10: Organisms and environments. The student knows that organisms undergo similar life processes and have structures and behaviors that help them survive within their environment. The student is expected to:
      - 112.15.b.10.B: explore and describe examples of traits that are inherited from parents to offspring such as eye color and shapes of leaves and behaviors that are learned such as reading a book and a wolf pack teaching their pups to hunt effectively;
  - 5<sup>th</sup> Grade:
    - 112.16.b.10: Organisms and environments. The student knows that organisms have structures and behaviors that help them survive within their environments. The student is expected to:
      - 112.16.b.10.B: differentiate between inherited traits of plants and animals such as spines on a cactus or shape of a beak and learned behaviors such as an animal learning tricks or a child riding a bicycle.
- Social Studies
  - 3<sup>rd</sup> Grade:
    - 113.14.b.18: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
      - 113.14.b.18.A: express ideas orally based on knowledge and experiences;
  - 4<sup>th</sup> Grade:
    - 113.15.b.22: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:



- 113.15.b.22.C: express ideas orally based on research and experiences;
- 5<sup>th</sup> Grade:
  - 113.16.b.25: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
    - 113.6.b.25.C: express ideas orally based on research and experiences;

## **COLOR IN THE GARDEN**

- English Language Arts
  - 3<sup>rd</sup> Grade:
    - 110.5.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:
      - 110.5.b.1.C: speak coherently about the topic under discussion, employing eye contact, speaking rate, volume, enunciation, and the conventions of language to communicate ideas effectively;
    - 110.5.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:
      - 110.5.b.6.G: evaluate details read to determine key ideas;
  - 4<sup>th</sup> Grade:
    - 110.6.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:
      - 110.6.b.1.C: express an opinion supported by accurate information, employing eye contact, speaking rate, volume, enunciation, and the conventions of language to communicate ideas effectively; and
    - 110.6.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:
      - 110.6.b.6.G: evaluate details read to determine key ideas;
  - 5<sup>th</sup> Grade:
    - 110.7.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:

- 110.7.b.6.G: evaluate details read to determine key ideas;

- Science

- 3<sup>rd</sup> Grade:

- 112.14.b.7: Earth and space. The student knows that Earth consists of natural resources and its surface is constantly changing. The student is expected to:

- 112.14.b.7.A: explore and record how soils are formed by weathering of rock and the decomposition of plant and animal remains;

- 4<sup>th</sup> Grade:

- 112.15.b.7: Earth and space. The students know that Earth consists of useful resources and its surface is constantly changing. The student is expected to:

- 112.15.b.7.A: examine properties of soils, including color and texture, capacity to retain water, and ability to support the growth of plants;

- Social Studies

- 3<sup>rd</sup> Grade:

- 113.14.b.17: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including electronic technology. The student is expected to:

- 113.14.b.17.B: sequence and categorize information;

- 4<sup>th</sup> Grade:

- 113.15.b.21: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including electronic technology. The student is expected to:

- 113.15.b.21.B: analyze information by sequencing, categorizing, identifying cause-and-effect relationships, comparing, contrasting, finding the main idea, summarizing, making generalizations and predictions, and drawing inferences and conclusions;

- 113.15.b.22: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:

- 113.15.b.22.D: create written and visual material such as journal entries, reports, graphic organizers, outlines, and bibliographies; and

- 5<sup>th</sup> Grade:



- 113.16.b.24: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including electronic technology. The student is expected to:
  - 113.16.b.24.B: analyze information by sequencing, categorizing, identifying cause-and-effect relationships, comparing, contrasting, finding the main idea, summarizing, making generalizations and predictions, and drawing inferences and conclusions;
- 113.16.b.25: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
  - 113.16.b.25.D: create written and visual material such as journal entries, reports, graphic organizers, outlines, and bibliographies; and

## **CORN, AN A-MAIZING PLANT: FOOD, FUEL, AND PLASTIC**

- English Language Arts
  - 3<sup>rd</sup> Grade:
    - 110.5.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:
      - 110.5.b.1.C: speak coherently about the topic under discussion, employing eye contact, speaking rate, volume, enunciation, and the conventions of language to communicate ideas effectively;
    - 110.5.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.
    - 110.5.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:
      - 110.5.b.6.G: evaluate details read to determine key ideas;
      - 110.5.b.6.H: synthesize information to create new understanding;
      - 110.5.b.6.I: monitor comprehension and make adjustments such as re-reading, using background knowledge, asking questions, and annotating when understanding breaks down.
  - 4<sup>th</sup> Grade:
    - 110.6.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:

- 110.6.b.1.C: express an opinion supported by accurate information, employing eye contact, speaking rate, volume, enunciation, and the conventions of language to communicate ideas effectively; and
- 110.6.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.
- 110.6.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:
  - 110.6.b.6.G: evaluate details read to determine key ideas;
  - 110.6.b.6.H: synthesize information to create new understanding;
  - 110.6.b.6.I: monitor comprehension and make adjustments such as re-reading, using background knowledge, asking questions, and annotating when understanding breaks down.

○ 5<sup>th</sup> Grade:

- 110.7.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.
- 110.7.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:
  - 110.7.b.6.G: evaluate details read to determine key ideas;
  - 110.7.b.6.H: synthesize information to create new understanding;
  - 110.7.b.6.I: monitor comprehension and make adjustments such as re-reading, using background knowledge, asking questions, and annotating when understanding breaks down.

• Science

○ 3<sup>rd</sup> Grade:

- 112.14.b.5: Matter and energy. The student knows that matter has measurable physical properties and those properties determine how matter is classified, changed, and used. The student is expected to:





- 112.14.b.5.C: predict, observe, and record changes in the state of matter caused by heating or cooling such as ice becoming liquid water, condensation forming on the outside of a glass of ice water, or liquid water being heated to the point of becoming water vapor; and
    - 112.14.b.5.D: explore and recognize that a mixture is created when two materials are combined such as gravel and sand or metal and plastic paper clips.
  - 4<sup>th</sup> Grade:
    - 112.15.b.5: Matter and energy. The student knows that matter has measurable physical properties and those properties determine how matter is classified, changed, and used. The student is expected to:
      - 112.15.b.5.B: compare and contrast a variety of mixtures, including solutions.
    - 112.15.b.7: Earth and space. The students know that Earth consists of useful resources and its surface is constantly changing. The student is expected to:
      - 112.15.b.7.C: identify and classify Earth's renewable resources, including air, plants, water, and animals, and nonrenewable resources, including coal, oil, and natural gas, and the importance of conservation.
  - 5<sup>th</sup> Grade:
    - 112.16.b.5: Matter and energy. The student knows that matter has measurable physical properties and those properties determine how matter is classified, changed, and used. The student is expected to:
      - 112.16.b.5.C: identify changes that can occur in the physical properties of the ingredients of solutions such as dissolving salt in water or adding lemon juice to water.
- Social Studies
  - 3<sup>rd</sup> Grade:
    - 113.14.b.17: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including electronic technology. The student is expected to:
      - 113.14.b.17.B: sequence and categorize information;
  - 4<sup>th</sup> Grade:
    - 113.15.b.21: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including electronic technology. The student is expected to:



- 113.15.b.21.B: analyze information by sequencing, categorizing, identifying cause-and-effect relationships, comparing, contrasting, finding the main idea, summarizing, making generalizations and predictions, and drawing inferences and conclusions;
- 5<sup>th</sup> Grade:
  - 113.16.b.7: Geography. The student understands the concept of regions in the United States. The student is expected to:
    - 113.16.b.7.C: locate on a map important political features such as the ten largest urban areas in the United States, the 50 states and their capitals, and regions such as the Northeast, the Midwest, and the Southwest; and
  - 113.16.b.24: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including electronic technology. The student is expected to:
    - 113.16.b.24.B: analyze information by sequencing, categorizing, identifying cause-and-effect relationships, comparing, contrasting, finding the main idea, summarizing, making generalizations and predictions, and drawing inferences and conclusions;

## **CULTURES, FOOD, AND COMMUNITIES AROUND THE WORLD**

- English Language Arts
  - 3<sup>rd</sup> Grade:
    - 110.5.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:
      - 110.5.b.1.C: speak coherently about the topic under discussion, employing eye contact, speaking rate, volume, enunciation, and the conventions of language to communicate ideas effectively;
      - 110.5.b.1.D: work collaboratively with others by following agreed-upon rules, norms, and protocols;
    - 110.5.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:
      - 110.5.b.13.A: generate questions on a topic for formal and informal inquiry;
      - 110.5.b.13.C: identify and gather relevant information from a variety of sources;



- 110.5.b.13.E: demonstrate understanding of information gathered;
- 4<sup>th</sup> Grade:
  - 110.6.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:
    - 110.6.b.1.C: express an opinion supported by accurate information, employing eye contact, speaking rate, volume, enunciation, and the conventions of language to communicate ideas effectively; and
    - 110.6.b.1.D: work collaboratively with others to develop a plan of shared responsibilities.
  - 110.6.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:
    - 110.6.b.13.A: generate and clarify questions on a topic for formal and informal inquiry;
    - 110.6.b.13.C: identify and gather relevant information from a variety of sources;
    - 110.6.b.13.E: identify primary and secondary sources;
- 5<sup>th</sup> Grade:
  - 110.7.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:
    - 110.7.b.1.D: work collaboratively with others to develop a plan of shared responsibilities.
  - 110.7.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:
    - 110.7.b.13.A: generate and clarify questions on a topic for formal and informal inquiry;
    - 110.7.b.13.C: identify and gather relevant information from a variety of sources;
    - 110.7.b.13.E: demonstrate understanding of information gathered;



- Social Studies
  - 3<sup>rd</sup> Grade:
    - 113.14.b.13: Culture. The student understands ethnic and/or cultural celebrations of the local community and other communities. The student is expected to:
      - 113.14.b.13.A: explain the significance of various ethnic and/or cultural celebrations in the local community and other communities; and
      - 113.14.b.13.B: compare ethnic and/or cultural celebrations in the local community with other communities.
    - 113.14.b.17: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including electronic technology. The student is expected to:
      - 113.14.b.17.B: sequence and categorize information;
    - 113.14.b.18: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
      - 113.14.b.18.A: express ideas orally based on knowledge and experiences;
    - 113.14.b.19: Social studies skills. The student uses problem-solving and decision-making skills, working independently and with others, in a variety of settings. The student is expected to:
      - 113.14.b.19.A: use a problem-solving process to identify a problem, gather information, list and consider options, consider advantages and disadvantages, choose and implement a solution, and evaluate the effectiveness of the solution; and
  - 4<sup>th</sup> Grade:
    - 113.15.b.21: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including electronic technology. The student is expected to:
      - 113.15.b.21.B: analyze information by sequencing, categorizing, identifying cause-and-effect relationships, comparing, contrasting, finding the main idea, summarizing, making generalizations and predictions, and drawing inferences and conclusions;
    - 113.15.b.22: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
      - 113.15.b.22.C: express ideas orally based on research and experiences;



- 113.15.b.23: Social studies skills. The student uses problem-solving and decision-making skills, working independently and with others, in a variety of settings. The student is expected to:
  - 113.15.b.23.A: use a problem-solving process to identify a problem, gather information, list and consider options, consider advantages and disadvantages, choose and implement a solution, and evaluate the effectiveness of the solution; and
- 5<sup>th</sup> Grade:
  - 113.16.b.24: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including electronic technology. The student is expected to:
    - 113.16.b.24.B: analyze information by sequencing, categorizing, identifying cause-and-effect relationships, comparing, contrasting, finding the main idea, summarizing, making generalizations and predictions, and drawing inferences and conclusions;
  - 113.16.b.25: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
    - 113.16.b.25.C: express ideas orally based on research and experiences;
  - 113.16.b.26: Social studies skills. The student uses problem-solving and decision-making skills, working independently and with others, in a variety of settings. The student is expected to:
    - 113.16.b.26.A: use a problem-solving process to identify a problem, gather information, list and consider options, consider advantages and disadvantages, choose and implement a solution, and evaluate the effectiveness of the solution; and

## **DESKTOP GREENHOUSES**

- English Language Arts
  - 3<sup>rd</sup> Grade:
    - 110.5.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:
      - 110.5.b.1.C: speak coherently about the topic under discussion, employing eye contact, speaking rate, volume, enunciation, and the conventions of language to communicate ideas effectively;
    - 110.5.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.

- 110.5.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:

- 110.5.b.6.G: evaluate details read to determine key ideas;
- 110.5.b.6.H: synthesize information to create new understanding;

- 110.5.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:

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

○ 4<sup>th</sup> Grade:

- 110.6.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:

- 110.6.b.1.C: express an opinion supported by accurate information, employing eye contact, speaking rate, volume, enunciation, and the conventions of language to communicate ideas effectively; and

- 110.6.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.

- 110.6.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:

- 110.6.b.6.G: evaluate details read to determine key ideas;
- 110.6.b.6.H: synthesize information to create new understanding;

- 110.6.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:

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



- 5<sup>th</sup> Grade:
  - 110.7.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.
  - 110.7.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:
    - 110.7.b.6.G: evaluate details read to determine key ideas;
    - 110.7.b.6.H: synthesize information to create new understanding;
  - 110.7.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:
    - 110.7.b.7.F: respond using newly acquired vocabulary as appropriate;
- Science
  - 3<sup>rd</sup> Grade:
    - 112.14.b.2: Scientific investigation and reasoning. The student uses scientific practices during laboratory and outdoor investigations. The student is expected to:
      - 112.14.b.2.A: plan and implement descriptive investigations, including asking and answering questions, making inferences, and selecting and using equipment or technology needed, to solve a specific problem in the natural world;
      - 112.14.b.2.B: collect and record data by observing and measuring using the metric system and recognize differences between observed and measured data;
      - 112.14.b.2.F: communicate valid conclusions supported by data in writing, by drawing pictures, and through verbal discussion.
  - 4<sup>th</sup> Grade:
    - 112.15.b.2: Scientific investigation and reasoning. The student uses scientific practices during laboratory and outdoor investigations. The student is expected to:
      - 112.15.b.2.A: plan and implement descriptive investigations, including asking well defined questions, making inferences, and selecting and using appropriate equipment or technology to answer his/her questions;



- 112.15.b.2.B: collect and record data by observing and measuring, using the metric system, and using descriptive words and numerals such as labeled drawings, writing, and concept maps;
  - 112.15.b.2.F: communicate valid oral and written results supported by data.
- 112.15.b.9: Organisms and environments. The student knows and understands that living organisms within an ecosystem interact with one another and with their environment. The student is expected to:
  - 112.15.b.9.A: investigate that most producers need sunlight, water, and carbon dioxide to make their own food, while consumers are dependent on other organisms for food; and
- 5<sup>th</sup> Grade:
  - 112.16.b.2: Scientific investigation and reasoning. The student uses scientific practices during laboratory and outdoor investigations. The student is expected to:
    - 112.16.b.2.A: describe, plan, and implement simple experimental investigations testing one variable;
    - 112.16.b.2.B: ask well defined questions, formulate testable hypotheses, and select and use appropriate equipment and technology;
    - 112.16.b.2.F: communicate valid conclusions in both written and verbal forms;

## **DRONES IN HIGH-TECH FARMING**

- English Language Arts
  - 3<sup>rd</sup> Grade:
    - 110.5.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:
      - 110.5.b.1.C: speak coherently about the topic under discussion, employing eye contact, speaking rate, volume, enunciation, and the conventions of language to communicate ideas effectively;
      - 110.5.b.1.D: work collaboratively with others by following agreed-upon rules, norms, and protocols;
    - 110.5.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.





- 110.5.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:
  - 110.5.b.6.G: evaluate details read to determine key ideas;
  - 110.5.b.6.H: synthesize information to create new understanding;
- 110.5.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:
  - 110.5.b.7.F: respond using newly acquired vocabulary as appropriate;
- 4<sup>th</sup> Grade:
  - 110.6.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:
    - 110.6.b.1.C: express an opinion supported by accurate information, employing eye contact, speaking rate, volume, enunciation, and the conventions of language to communicate ideas effectively; and
    - 110.6.b.1.D: work collaboratively with others to develop a plan of shared responsibilities.
  - 110.6.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.
  - 110.6.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:
    - 110.6.b.6.G: evaluate details read to determine key ideas;
    - 110.6.b.6.H: synthesize information to create new understanding;
  - 110.6.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:
    - 110.6.b.7.F: respond using newly acquired vocabulary as appropriate;



- 5<sup>th</sup> Grade:
  - 110.7.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:
    - 110.7.b.1.D: work collaboratively with others to develop a plan of shared responsibilities.
  - 110.7.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.
  - 110.7.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:
    - 110.7.b.6.G: evaluate details read to determine key ideas;
    - 110.7.b.6.H: synthesize information to create new understanding;
  - 110.7.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:
    - 110.7.b.7.F: respond using newly acquired vocabulary as appropriate;
- Science
  - 3<sup>rd</sup> Grade:
    - 112.14.b.6: Force, motion, and energy. The student knows that forces cause change and that energy exists in many forms. The student is expected to:
      - 112.14.b.6.C: observe forces such as magnetism and gravity acting on objects.
  - 4<sup>th</sup> Grade:
    - 112.15.b.6: Force, motion, and energy. The student knows that energy exists in many forms and can be observed in cycles, patterns, and systems. The student is expected to:
      - 112.15.b.6.D: design a descriptive investigation to explore the effect of force on an object such as a push or a pull, gravity, friction, or magnetism.
  - 5<sup>th</sup> Grade:



- 112.16.b.6: Force, motion, and energy. The student knows that energy occurs in many forms and can be observed in cycles, patterns, and systems. The student is expected to:
  - 112.16.b.6.D: design a simple experimental investigation that tests the effect of force on an object.
- Social Studies
  - 3<sup>rd</sup> Grade:
    - 113.14.b.16: Science, technology, and society. The student understands how individuals have created or invented new technology and affected life in various communities, past and present. The student is expected to:
      - 113.14.b.16.B: identify the impact of scientific breakthroughs and new technology in computers, pasteurization, and medical vaccines on various communities.
    - 113.14.b.17: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including electronic technology. The student is expected to:
      - 113.14.b.17.B: sequence and categorize information;
    - 113.14.b.18: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
      - 113.14.b.18.A: express ideas orally based on knowledge and experiences;
  - 4<sup>th</sup> Grade:
    - 113.15.b.20: Science, technology, and society. The student understands the impact of science and technology on life in Texas. The student is expected to:
      - 113.15.b.20.B: describe how scientific discoveries and innovations such as in aerospace, agriculture, energy, and technology have benefited individuals, businesses, and society in Texas; and
      - 113.15.b.20.C: predict how future scientific discoveries and technological innovations might affect life in Texas.
    - 113.15.b.21: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including electronic technology. The student is expected to:
      - 113.15.b.21.B: analyze information by sequencing, categorizing, identifying cause-and-effect relationships, comparing, contrasting, finding the main idea, summarizing, making generalizations and predictions, and drawing inferences and conclusions;
    - 113.15.b.22: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:



- 113.15.b.22.C: express ideas orally based on research and experiences;
- 5<sup>th</sup> Grade:
  - 113.16.b.23: Science, technology, and society. The student understands the impact of science and technology on society in the United States. The student is expected to:
    - 113.16.b.23.C: explain how scientific discoveries and technological innovations in the fields of medicine, communication, and transportation have benefited individuals and society in the United States; and
    - 113.16.b.23.D: predict how future scientific discoveries and technological innovations could affect society in the United States.
  - 113.16.b.24: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including electronic technology. The student is expected to:
    - 113.16.b.24.B: analyze information by sequencing, categorizing, identifying cause-and-effect relationships, comparing, contrasting, finding the main idea, summarizing, making generalizations and predictions, and drawing inferences and conclusions;
  - 113.16.b.25: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
    - 113.16.b.25.C: express ideas orally based on research and experiences;

## **EDIBLE NUMBERS**

- English Language Arts
  - 3<sup>rd</sup> Grade:
    - 110.5.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:
      - 110.5.b.1.C: speak coherently about the topic under discussion, employing eye contact, speaking rate, volume, enunciation, and the conventions of language to communicate ideas effectively;
      - 110.5.b.1.D: work collaboratively with others by following agreed-upon rules, norms, and protocols;
    - 110.5.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:

- 110.5.b.11.D: edit drafts using standard English conventions, including:
  - 110.5.b.11.D.i: complete simple and compound sentences with subject-verb agreement;
  - 110.5.b.11.D.ii: past, present, and future verb tense;
  - 110.5.b.11.D.iii: singular, plural, common, and proper nouns;
  - 110.5.b.11.D.iv: adjectives, including their comparative and superlative forms;
  - 110.5.b.11.D.v: adverbs that convey time and adverbs that convey manner;
  - 110.5.b.11.D.vi: prepositions and prepositional phrases;
  - 110.5.b.11.D.vii: pronouns, including subjective, objective, and possessive cases;
  - 110.5.b.11.D.viii: coordinating conjunctions to form compound subjects, predicates, and sentences;
  - 110.5.b.11.D.ix: capitalization of official titles of people, holidays, and geographical names and places;
  - 110.5.b.11.D.x: punctuation marks, including apostrophes in contractions and possessives and commas in compound sentences and items in a series; and
  - 110.5.b.11.D.xi: correct spelling of words with grade-appropriate orthographic patterns and rules and high-frequency words;
- 110.5.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:
  - 110.5.b.12.B: compose informational texts, including brief compositions that convey information about a topic, using a clear central idea and genre characteristics and craft;
- 4<sup>th</sup> Grade:
  - 110.6.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:
    - 110.6.b.1.D: work collaboratively with others to develop a plan of shared responsibilities.



- 110.6.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:
    - 110.6.b.11.D: edit drafts using standard English conventions, including:
      - 110.6.b.11.D.i: complete simple and compound sentences with subject-verb agreement and avoidance of splices, run-ons, and fragments;
      - 110.6.b.11.D.ii: past tense of irregular verbs;
      - 110.6.b.11.D.iii: singular, plural, common, and proper nouns;
      - 110.6.b.11.D.iv: adjectives, including their comparative and superlative forms;
      - 110.6.b.11.D.v: adverbs that convey frequency and adverbs that convey degree;
      - 110.6.b.11.D.vi: prepositions and prepositional phrases;
      - 110.6.b.11.D.vii: pronouns, including reflexive;
      - 110.b.b.11.D.viii: coordinating conjunctions to form compound subjects, predicates, and sentences;
      - 110.6.b.11.D.ix: capitalization of historical periods, events, and documents; titles of books; stories and essays; and languages, races, and nationalities;
      - 110.6.b.11.D.x: punctuation marks, including apostrophes in possessives, commas in compound sentences, and quotation marks in dialogue; and
      - 110.6.b.11.D.xi: correct spelling of words with grade-appropriate orthographic patterns and rules and high-frequency words;
  - 110.6.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:
    - 110.6.b.12.B: compose informational texts, including brief compositions that convey information about a topic, using a clear central idea and genre characteristics and craft;
- 5<sup>th</sup> Grade:
    - 110.7.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:



- 110.7.b.1.C: give an organized presentation employing eye contact, speaking rate, volume, enunciation, natural gestures, and conventions of language to communicate ideas effectively;
- 110.7.b.1.D: work collaboratively with others to develop a plan of shared responsibilities.
- 110.7.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:
  - 110.7.b.11.D: edit drafts using standard English conventions, including:
    - 110.7.b.11.D.i: complete simple and compound sentences with subject-verb agreement and avoidance of splices, run-ons, and fragments;
    - 110.7.b.11.D.ii: past tense of irregular verbs;
    - 110.7.b.11.D.iii: collective nouns;
    - 110.7.b.11.D.iv: adjectives, including their comparative and superlative forms;
    - 110.7.b.11.D.v: conjunctive adverbs;
    - 110.7.b.11.D.vi: prepositions and prepositional phrases and their influence on subject-verb agreement;
    - 110.7.b.11.D.vii: pronouns, including indefinite;
    - 110.7.b.11.D.viii: subordinating conjunctions to form complex sentences;
    - 110.7.b.11.D.ix: capitalization of abbreviations, initials, acronyms, and organizations;
    - 110.7.b.11.D.x: italics and underlining for titles and emphasis and punctuation marks, including quotation marks in dialogue and commas in compound and complex sentences; and
    - 110.7.b.11.D.xi: correct spelling of words with grade-appropriate orthographic patterns and rules and high-frequency words;
- 110.7.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:
  - 110.7.b.12.B: compose informational texts, including brief compositions that convey information about a topic, using a clear central idea and genre characteristics and craft;



- Math
  - 3<sup>rd</sup> Grade:
    - 111.5.b.1: Mathematical process standards. The student uses mathematical processes to acquire and demonstrate mathematical understanding. The student is expected to:  
111.5.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;
    - 111.5.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 problems with efficiency and accuracy. The student is expected to:
      - 111.5.b.4.A: solve with fluency one-step and two-step problems involving addition and subtraction within 1,000 using strategies based on place value, properties of operations, and the relationship between addition and subtraction;
      - 111.5.b.4.G: use strategies and algorithms, including the standard algorithm, to multiply a two-digit number by a one-digit number. Strategies may include mental math, partial products, and the commutative, associative, and distributive properties;
      - 111.5.b.4.K: solve one-step and two-step problems involving multiplication and division within 100 using strategies based on objects; pictorial models, including arrays, area models, and equal groups; properties of operations; or recall of facts.
    - 111.5.b.8: Data analysis. The student applies mathematical process standards to solve problems by collecting, organizing, displaying, and interpreting data. The student is expected to:
      - 111.5.b.8.A: summarize a data set with multiple categories using a frequency table, dot plot, pictograph, or bar graph with scaled intervals;
  - 4<sup>th</sup> Grade:
    - 111.6.b.1: Mathematical process standards. The student uses mathematical processes to acquire and demonstrate mathematical understanding. The student is expected to:
      - 111.6.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;





- 111.6.b.2: Number and operations. The student applies mathematical process standards to represent, compare, and order whole numbers and decimals and understand relationships related to place value. The student is expected to:
    - 111.6.b.2.B: represent the value of the digit in whole numbers through 1,000,000,000 and decimals to the hundredths using expanded notation and numerals;
    - 111.6.b.2.E: represent decimals, including tenths and hundredths, using concrete and visual models and money;
  - 111.6.b.4: Number and operations. The student applies mathematical process standards to develop and use strategies and methods for whole number computations and decimal sums and differences in order to solve problems with efficiency and accuracy. The student is expected to:
    - 111.6.b.4.A: add and subtract whole numbers and decimals to the hundredths place using the standard algorithm;
    - 111.6.b.4.D: use strategies and algorithms, including the standard algorithm, to multiply up to a four-digit number by a one-digit number and to multiply a two-digit number by a two-digit number. Strategies may include mental math, partial products, and the commutative, associative, and distributive properties;
    - 111.6.b.4.E: represent the quotient of up to a four-digit whole number divided by a one-digit whole number using arrays, area models, or equations;
    - 111.6.b.4.F: use strategies and algorithms, including the standard algorithm, to divide up to a four-digit dividend by a one-digit divisor;
    - 111.6.b.4.H: solve with fluency one- and two-step problems involving multiplication and division, including interpreting remainders.
- 5<sup>th</sup> Grade:
- 111.7.b.1: Mathematical process standards. The student uses mathematical processes to acquire and demonstrate mathematical understanding. The student is expected to:
    - 111.7.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;



- 111.7.b.2: Number and operations. The student applies mathematical process standards to represent, compare, and order positive rational numbers and understand relationships as related to place value. The student is expected to:
  - 111.7.b.2.A: represent the value of the digit in decimals through the thousandths using expanded notation and numerals;
- 111.7.b.3: Number and operations. The student applies mathematical process standards to develop and use strategies and methods for positive rational number computations in order to solve problems with efficiency and accuracy. The student is expected to:
  - 111.7.b.3.B: multiply with fluency a three-digit number by a two-digit number using the standard algorithm;
  - 111.7.b.3.C: solve with proficiency for quotients of up to a four-digit dividend by a two-digit divisor using strategies and the standard algorithm;
  - 111.7.b.3.D: represent multiplication of decimals with products to the hundredths using objects and pictorial models, including area models;
  - 111.7.b.3.E: solve for products of decimals to the hundredths, including situations involving money, using strategies based on place-value understandings, properties of operations, and the relationship to the multiplication of whole numbers;
  - 111.7.b.3.I: represent and solve multiplication of a whole number and a fraction that refers to the same whole using objects and pictorial models, including area models;
  - 111.7.b.3.K: add and subtract positive rational numbers fluently;
- Social Studies
  - 3<sup>rd</sup> Grade:
    - 113.14.b.17: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including electronic technology. The student is expected to:
      - 113.14.b.17.B: sequence and categorize information;
      - 113.14.b.17.E: interpret and create visuals, including graphs, charts, tables, timelines, illustrations, and maps;
    - 113.14.b.18: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
      - 113.14.b.18.A: express ideas orally based on knowledge and experiences;
      - 113.14.b.18.C: use standard grammar, spelling, sentence structure, and punctuation.



- 4<sup>th</sup> Grade:
  - 113.15.b.21: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including electronic technology. The student is expected to:
    - 113.15.b.21.C: organize and interpret information in outlines, reports, databases, and visuals, including graphs, charts, timelines, and maps;
  - 113.15.b.22: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
    - 113.15.b.22.C: express ideas orally based on research and experiences;
    - 113.15.b.22.D: create written and visual material such as journal entries, reports, graphic organizers, outlines, and bibliographies;
    - 113.15.b.22.E: use standard grammar, spelling, sentence structure, and punctuation.
- 5<sup>th</sup> Grade:
  - 113.16.b.24: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including electronic technology. The student is expected to:
    - 113.16.b.24.C: organize and interpret information in outlines, reports, databases, and visuals, including graphs, charts, timelines, and maps;
  - 113.16.b.25: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
    - 113.16.b.25.C: express ideas orally based on research and experiences;
    - 113.16.b.25.D: create written and visual material such as journal entries, reports, graphic organizers, outlines, and bibliographies; and
    - 113.16.b.25.E: use standard grammar, spelling, sentence structure, and punctuation.

## **EXPLORING TEXTURE IN THE GARDEN**

- English Language Arts
  - 3<sup>rd</sup> Grade:
    - 110.5.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:



- 110.5.b.1.C: speak coherently about the topic under discussion, employing eye contact, speaking rate, volume, enunciation, and the conventions of language to communicate ideas effectively;
  - 110.5.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:
    - 110.5.b.6.G: evaluate details read to determine key ideas;
- 4<sup>th</sup> Grade:
  - 110.6.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:
    - 110.6.b.1.C: express an opinion supported by accurate information, employing eye contact, speaking rate, volume, enunciation, and the conventions of language to communicate ideas effectively; and
  - 110.6.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:
    - 110.6.b.6.G: evaluate details read to determine key ideas;
- 5<sup>th</sup> Grade:
  - 110.7.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:
    - 110.7.b.6.G: evaluate details read to determine key ideas;
- Science
  - 3<sup>rd</sup> Grade:
    - 112.14.b.7: Earth and space. The student knows that Earth consists of natural resources and its surface is constantly changing. The student is expected to:
      - 112.14.b.7.A: explore and record how soils are formed by weathering of rock and the decomposition of plant and animal remains;
  - 4<sup>th</sup> Grade:
    - 112.15.b.7: Earth and space. The students know that Earth consists of useful resources and its surface is constantly changing. The student is expected to:



- 112.15.b.7.A: examine properties of soils, including color and texture, capacity to retain water, and ability to support the growth of plants;
- Social Studies
  - 3<sup>rd</sup> Grade:
    - 113.14.b.17: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including electronic technology. The student is expected to:
      - 113.14.b.17.B: sequence and categorize information;
  - 4<sup>th</sup> Grade:
    - 113.15.b.21: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including electronic technology. The student is expected to:
      - 113.15.b.21.B: analyze information by sequencing, categorizing, identifying cause-and-effect relationships, comparing, contrasting, finding the main idea, summarizing, making generalizations and predictions, and drawing inferences and conclusions;
  - 5<sup>th</sup> Grade:
    - 113.16.b.24: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including electronic technology. The student is expected to:
      - 113.16.b.24.B: analyze information by sequencing, categorizing, identifying cause-and-effect relationships, comparing, contrasting, finding the main idea, summarizing, making generalizations and predictions, and drawing inferences and conclusions;

## **FARMER GEORGE: THE SEEDS OF A PRESIDENCY**

- English Language Arts
  - 3<sup>rd</sup> Grade:
    - 110.5.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:
      - 110.5.b.1.C: speak coherently about the topic under discussion, employing eye contact, speaking rate, volume, enunciation, and the conventions of language to communicate ideas effectively;
    - 110.5.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:

- 110.5.b.6.G: evaluate details read to determine key ideas;
- 110.5.b.6.H: synthesize information to create new understanding;
- 110.5.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:
  - 110.5.b.7.E: interact with sources in meaningful ways such as notetaking, annotating, freewriting, or illustrating;
- 110.5.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:

- 110.5.b.12.B: compose informational texts, including brief compositions that convey information about a topic, using a clear central idea and genre characteristics and craft;

○ 4<sup>th</sup> Grade:

- 110.6.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:
  - 110.6.b.1.C: express an opinion supported by accurate information, employing eye contact, speaking rate, volume, enunciation, and the conventions of language to communicate ideas effectively; and
- 110.6.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:
  - 110.6.b.6.G: evaluate details read to determine key ideas;
  - 110.6.b.6.H: synthesize information to create new understanding;
- 110.6.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:
  - 110.6.b.7.E: interact with sources in meaningful ways such as notetaking, annotating, freewriting, or illustrating;
- 110.6.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:

- 110.6.b.12.B: compose informational texts, including brief compositions that convey information about a topic, using a clear central idea and genre characteristics and craft;

○ 5<sup>th</sup> Grade:

- 110.7.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:

- 110.7.b.6.G: evaluate details read to determine key ideas;
- 110.7.b.6.H: synthesize information to create new understanding;

- 110.7.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:

- 110.7.b.7.E: interact with sources in meaningful ways such as notetaking, annotating, freewriting, or illustrating;

- 110.7.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:

- 110.7.b.12.B: compose informational texts, including brief compositions that convey information about a topic, using a clear central idea and genre characteristics and craft;

• Social Studies

○ 3<sup>rd</sup> Grade:

- 113.14.b.3: History. The student understands the concepts of time and chronology. The student is expected to:

- 113.14.b.3.A: use vocabulary related to chronology, including past, present, and future times;

- 113.14.b.18: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:

- 113.14.b.18.A: express ideas orally based on knowledge and experiences;

○ 4<sup>th</sup> Grade:

- 113.15.b.22: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:

- 113.15.b.22.C: express ideas orally based on research and experiences;



- 5<sup>th</sup> Grade:
  - 113.16.b.2: History. The student understands how conflict between the American colonies and Great Britain led to American independence. The student is expected to:
    - 113.16.b.2.B: identify the Founding Fathers and Patriot heroes, including John Adams, Samuel Adams, Benjamin Franklin, Nathan Hale, Thomas Jefferson, the Sons of Liberty, and George Washington, and their motivations and contributions during the revolutionary period; and
  - 113.16.b.4: History. The student understands political, economic, and social changes that occurred in the United States during the 19th century. The student is expected to:
    - 113.16.b.4.F: explain how industry and the mechanization of agriculture changed the American way of life; and
  - 113.16.b.25: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
    - 113.16.b.25.C: express ideas orally based on research and experiences;

## **FLOWER POWER**

- English Language Arts
  - 3<sup>rd</sup> Grade:
    - 110.5.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:
      - 110.5.b.1.C: speak coherently about the topic under discussion, employing eye contact, speaking rate, volume, enunciation, and the conventions of language to communicate ideas effectively;
      - 110.5.b.1.D: work collaboratively with others by following agreed-upon rules, norms, and protocols;
    - 110.5.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.
    - 110.5.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:





- 110.5.b.6.G: evaluate details read to determine key ideas;
    - 110.5.b.6.H: synthesize information to create new understanding;
  - 110.5.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:
    - 110.5.b.7.F: respond using newly acquired vocabulary as appropriate;
- 4<sup>th</sup> Grade:
  - 110.6.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:
    - 110.6.b.1.C: express an opinion supported by accurate information, employing eye contact, speaking rate, volume, enunciation, and the conventions of language to communicate ideas effectively; and
    - 110.6.b.1.D: work collaboratively with others to develop a plan of shared responsibilities.
  - 110.6.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.
  - 110.6.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:
    - 110.6.b.6.G: evaluate details read to determine key ideas;
    - 110.5.b.6.H: synthesize information to create new understanding;
  - 110.6.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:
    - 110.6.b.7.F: respond using newly acquired vocabulary as appropriate;
- 5<sup>th</sup> Grade:
  - 110.7.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:

- 110.7.b.1.D: work collaboratively with others to develop a plan of shared responsibilities.
- 110.7.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.
- 110.7.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:
  - 110.7.b.6.G: evaluate details read to determine key ideas;
  - 110.7.b.6.H: synthesize information to create new understanding;
- 110.7.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:
  - 110.7.b.7.F: respond using newly acquired vocabulary as appropriate;

## **FROM CHICKEN LITTLE TO CHICKEN BIG**

- English Language Arts
  - 3<sup>rd</sup> Grade:
    - 110.5.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:
      - 110.5.b.1.C: speak coherently about the topic under discussion, employing eye contact, speaking rate, volume, enunciation, and the conventions of language to communicate ideas effectively;
      - 110.5.b.1.D: work collaboratively with others by following agreed-upon rules, norms, and protocols;
    - 110.5.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:



- 110.5.b.3.B: use context within and beyond a sentence to determine the meaning of unfamiliar words and multiple-meaning words;
  - 110.5.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:
    - 110.5.b.6.G: evaluate details read to determine key ideas;
    - 110.5.b.6.H: synthesize information to create new understanding;
  - 110.5.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:
    - 110.5.b.7.E: interact with sources in meaningful ways such as notetaking, annotating, freewriting, or illustrating;
    - 110.5.b.7.F: respond using newly acquired vocabulary as appropriate;
- 4<sup>th</sup> Grade:
  - 110.6.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:
    - 110.6.b.1.D: work collaboratively with others to develop a plan of shared responsibilities.
  - 110.6.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:
    - 110.6.b.3.B: use context within and beyond a sentence to determine the relevant meaning of unfamiliar words or multiple-meaning words;
  - 110.6.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:
    - 110.6.b.6.G: evaluate details read to determine key ideas;
    - 110.6.b.6.H: synthesize information to create new understanding;
  - 110.6.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:

- 110.6.b.7.E: interact with sources in meaningful ways such as notetaking, annotating, freewriting, or illustrating;
- 110.6.b.7.F: respond using newly acquired vocabulary as appropriate;

○ 5<sup>th</sup> Grade:

- 110.7.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:
  - 110.7.b.1.D: work collaboratively with others to develop a plan of shared responsibilities.
- 110.7.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:
  - 110.7.b.3.B: use context within and beyond a sentence to determine the relevant meaning of unfamiliar words or multiple-meaning words;
- 110.7.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:
  - 110.7.b.6.G: evaluate details read to determine key ideas;
  - 110.7.b.6.H: synthesize information to create new understanding;
- 110.7.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:
  - 110.7.b.7.E: interact with sources in meaningful ways such as notetaking, annotating, freewriting, or illustrating;
  - 110.7.b.7.F: respond using newly acquired vocabulary as appropriate;

• Science

○ 3<sup>rd</sup> Grade:

- 112.14.b.10: Organisms and environments. The student knows that organisms undergo similar life processes and have structures that help them survive within their environments. The student is expected to:



- 112.14.b.10.B: investigate and compare how animals and plants undergo a series of orderly changes in their diverse life cycles such as tomato plants, frogs, and lady beetles.
- 4<sup>th</sup> Grade:
  - 112.15.b.10: Organisms and environments. The student knows that organisms undergo similar life processes and have structures and behaviors that help them survive within their environment. The student is expected to:
    - 112.15.b.10.B: explore and describe examples of traits that are inherited from parents to offspring such as eye color and shapes of leaves and behaviors that are learned such as reading a book and a wolf pack teaching their pups to hunt effectively; and
    - 112.15.b.10.C: explore, illustrate, and compare life cycles in living organisms such as beetles, crickets, radishes, or lima beans.
- 5<sup>th</sup> Grade:
  - 112.15.b.10: Organisms and environments. The student knows that organisms have structures and behaviors that help them survive within their environments. The student is expected to:
    - 112.15.b.10.B: differentiate between inherited traits of plants and animals such as spines on a cactus or shape of a beak and learned behaviors such as an animal learning tricks or a child riding a bicycle.
- Social Studies
  - 3<sup>rd</sup> Grade:
    - 113.14.b.17: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including electronic technology. The student is expected to:
      - 113.14.b.17.B: sequence and categorize information;
    - 113.14.b.18: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
      - 113.14.b.18.A: express ideas orally based on knowledge and experiences;
  - 4<sup>th</sup> Grade:
    - 113.15.b.22: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
      - 113.15.b.22.C: express ideas orally based on research and experiences;
  - 5<sup>th</sup> Grade:
    - 113.16.b.25: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:



- 113.16.b.25.C: express ideas orally based on research and experiences;

## **FROM SOYBEANS TO CAR PARTS**

- English Language Arts

- 3<sup>rd</sup> Grade:

- 110.5.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:
      - 110.5.b.1.C: speak coherently about the topic under discussion, employing eye contact, speaking rate, volume, enunciation, and the conventions of language to communicate ideas effectively;
    - 110.5.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.
    - 110.5.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:
      - 110.5.b.6.G: evaluate details read to determine key ideas;
    - 110.5.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:
      - 110.5.b.13.C: identify and gather relevant information from a variety of sources;

- 4<sup>th</sup> Grade:

- 110.6.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:
      - 110.6.b.1.C: express an opinion supported by accurate information, employing eye contact, speaking rate, volume, enunciation, and the conventions of language to communicate ideas effectively; and
    - 110.6.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.

- 110.6.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:

- 110.6.b.6.G: evaluate details read to determine key ideas;

- 110.6.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:

- 110.6.b.13.C: identify and gather relevant information from a variety of sources;

- 5<sup>th</sup> Grade:

- 110.7.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.

- 110.7.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:

- 110.7.b.6.G: evaluate details read to determine key ideas;

- 110.7.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:

- 110.7.b.13.C: identify and gather relevant information from a variety of sources;

- Science

- 3<sup>rd</sup> Grade:

- 112.14.b.5: Matter and energy. The student knows that matter has measurable physical properties and those properties determine how matter is classified, changed, and used. The student is expected to:

- 112.14.b.5.D: explore and recognize that a mixture is created when two materials are combined such as gravel and sand or metal and plastic paper clips.

- 5<sup>th</sup> Grade:



- 112.16.b.5: Matter and energy. The student knows that matter has measurable physical properties and those properties determine how matter is classified, changed, and used. The student is expected to:
  - 112.16.b.5.C: identify changes that can occur in the physical properties of the ingredients of solutions such as dissolving salt in water or adding lemon juice to water.
- Social Studies
  - 3<sup>rd</sup> Grade:
    - 113.14.b.8: Economics. The student understands how businesses operate in the U.S. free enterprise system. The student is expected to:
      - 113.14.b.8.E: identify individuals, past and present, including Henry Ford and other entrepreneurs in the community such as Mary Kay Ash, Wallace Amos, Milton Hershey, and Sam Walton, who have started new businesses.
  - 5<sup>th</sup> Grade:
    - 113.16.b.7: Geography. The student understands the concept of regions in the United States. The student is expected to:
      - 113.16.b.7.C: locate on a map important political features such as the ten largest urban areas in the United States, the 50 states and their capitals, and regions such as the Northeast, the Midwest, and the Southwest; and
    - 113.16.b.23: Science, technology, and society. The student understands the impact of science and technology on society in the United States. The student is expected to:
      - 113.16.b.23.A: identify the accomplishments of notable individuals in the fields of science and technology, including Benjamin Franklin, Eli Whitney, John Deere, Thomas Edison, Alexander Graham Bell, George Washington Carver, the Wright Brothers, and Neil Armstrong;

## **FULL OF BEANS: HENRY FORD GROWS A CAR**

- English Language Arts
  - 3<sup>rd</sup> Grade:
    - 110.5.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:
      - 110.5.b.1.C: speak coherently about the topic under discussion, employing eye contact, speaking rate, volume, enunciation, and the conventions of language to communicate ideas effectively;





- 110.5.b.1.D: work collaboratively with others by following agreed-upon rules, norms, and protocols;
  - 110.5.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:
    - 110.5.b.6.G: evaluate details read to determine key ideas;
    - 110.5.b.6.H: synthesize information to create new understanding;
- 4<sup>th</sup> Grade:
  - 110.6.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:
    - 110.6.b.1.C: express an opinion supported by accurate information, employing eye contact, speaking rate, volume, enunciation, and the conventions of language to communicate ideas effectively; and
    - 110.6.b.1.D: work collaboratively with others to develop a plan of shared responsibilities.
  - 110.6.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:
    - 110.6.b.6.G: evaluate details read to determine key ideas;
    - 110.6.b.6.H: synthesize information to create new understanding;
- 5<sup>th</sup> Grade:
  - 110.7.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:
    - 110.7.b.1.D: work collaboratively with others to develop a plan of shared responsibilities.
  - 110.7.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:
    - 110.7.b.6.G: evaluate details read to determine key ideas;
    - 110.7.b.6.H: synthesize information to create new understanding;
- Math
  - 3<sup>rd</sup> Grade:



- 111.5.b.7: Geometry and measurement. The student applies mathematical process standards to select appropriate units, strategies, and tools to solve problems involving customary and metric measurement. The student is expected to:
  - 111.5.b.7.E: determine liquid volume (capacity) or weight using appropriate units and tools.
- Science
  - 3<sup>rd</sup> Grade:
    - 112.14.b.5: Matter and energy. The student knows that matter has measurable physical properties and those properties determine how matter is classified, changed, and used. The student is expected to:
      - 112.14.b.5.B: describe and classify samples of matter as solids, liquids, and gases and demonstrate that solids have a definite shape and that liquids and gases take the shape of their container;
      - 112.14.b.5.C: predict, observe, and record changes in the state of matter caused by heating or cooling such as ice becoming liquid water, condensation forming on the outside of a glass of ice water, or liquid water being heated to the point of becoming water vapor; and
      - 112.14.b.5.D: explore and recognize that a mixture is created when two materials are combined such as gravel and sand or metal and plastic paper clips.
  - 5<sup>th</sup> Grade:
    - 112.16.b.5: Matter and energy. The student knows that matter has measurable physical properties and those properties determine how matter is classified, changed, and used. The student is expected to:
      - 112.16.b.5.C: identify changes that can occur in the physical properties of the ingredients of solutions such as dissolving salt in water or adding lemon juice to water.
- Social Studies
  - 3<sup>rd</sup> Grade:
    - 113.14.b.8: Economics. The student understands how businesses operate in the U.S. free enterprise system. The student is expected to:
      - 113.14.b.8.E: identify individuals, past and present, including Henry Ford and other entrepreneurs in the community such as Mary Kay Ash, Wallace Amos, Milton Hershey, and Sam Walton, who have started new businesses.
    - 113.14.b.17: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including electronic technology. The student is expected to:



- 113.14.b.17.E: interpret and create visuals, including graphs, charts, tables, timelines, illustrations, and maps;
- 4<sup>th</sup> Grade:
  - 113.15.b.21: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including electronic technology. The student is expected to:
    - 113.15.b.21.C: organize and interpret information in outlines, reports, databases, and visuals, including graphs, charts, timelines, and maps;
- 5<sup>th</sup> Grade:
  - 113.16.b.5: History. The student understands important issues, events, and individuals in the United States during the 20th and 21st centuries. The student is expected to:
    - 113.16.b.5.A: analyze various issues and events of the 20th century such as industrialization, urbanization, increased use of oil and gas, the Great Depression, the world wars, the civil rights movement, and military actions;
  - 113.16.b.24: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including electronic technology. The student is expected to:
    - 113.16.b.24.C: organize and interpret information in outlines, reports, databases, and visuals, including graphs, charts, timelines, and maps;

## **GET POPPING!**

- English Language Arts
  - 3<sup>rd</sup> Grade:
    - 110.5.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:
      - 110.5.b.1.C: speak coherently about the topic under discussion, employing eye contact, speaking rate, volume, enunciation, and the conventions of language to communicate ideas effectively;
      - 110.5.b.1.D: work collaboratively with others by following agreed-upon rules, norms, and protocols;
  - 4<sup>th</sup> Grade:
    - 110.6.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:

- 110.6.b.1.C: express an opinion supported by accurate information, employing eye contact, speaking rate, volume, enunciation, and the conventions of language to communicate ideas effectively; and
- 110.6.b.1.D: work collaboratively with others to develop a plan of shared responsibilities.

○ 5<sup>th</sup> Grade:

- 110.7.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:
  - 110.7.b.1.D: work collaboratively with others to develop a plan of shared responsibilities.

• Science

○ 3<sup>rd</sup> Grade:

- 112.14.b.1: Scientific investigation and reasoning. The student conducts classroom and outdoor investigations following home and school safety procedures and environmentally appropriate practices. The student is expected to:
  - 112.14.b.1.A: demonstrate safe practices as described in Texas Education Agency-approved safety standards during classroom and outdoor investigations using safety equipment as appropriate, including safety goggles or chemical splash goggles, as appropriate, and gloves;
- 112.14.b.2: Scientific investigation and reasoning. The student uses scientific practices during laboratory and outdoor investigations. The student is expected to:
  - 112.14.b.2.A: plan and implement descriptive investigations, including asking and answering questions, making inferences, and selecting and using equipment or technology needed, to solve a specific problem in the natural world;
- 112.14.b.4: Scientific investigation and reasoning. The student knows how to use a variety of tools and methods to conduct science inquiry. The student is expected to:
  - 112.14.b.4.A: collect, record, and analyze information using tools, including cameras, computers, hand lenses, metric rulers, Celsius thermometers, wind vanes, rain gauges, pan balances, graduated cylinders, beakers, spring scales, hot plates, meter sticks,



magnets, collecting nets, notebooks, and Sun, Earth, and Moon system models; timing devices; and materials to support observation of habitats of organisms such as terrariums and aquariums.

- 112.14.b.5: Matter and energy. The student knows that matter has measurable physical properties and those properties determine how matter is classified, changed, and used. The student is expected to:
  - 112.14.b.5.C: predict, observe, and record changes in the state of matter caused by heating or cooling such as ice becoming liquid water, condensation forming on the outside of a glass of ice water, or liquid water being heated to the point of becoming water vapor; and
- 4<sup>th</sup> Grade:
  - 112.15.b.1: Scientific investigation and reasoning. The student conducts classroom and outdoor investigations, following home and school safety procedures and environmentally appropriate and ethical practices. The student is expected to:
    - 112.15.b.1.A: demonstrate safe practices and the use of safety equipment as described in Texas Education Agency-approved safety standards during classroom and outdoor investigations using safety equipment, including safety goggles or chemical splash goggles, as appropriate, and gloves, as appropriate
  - 112.15.b.2: Scientific investigation and reasoning. The student uses scientific practices during laboratory and outdoor investigations. The student is expected to:
    - 112.15.b.2.A: plan and implement descriptive investigations, including asking well defined questions, making inferences, and selecting and using appropriate equipment or technology to answer his/her questions;
  - 112.15.b.4: Scientific investigation and reasoning. The student knows how to use a variety of tools, materials, equipment, and models to conduct science inquiry. The student is expected to:
    - 112.15.b.4.A: collect, record, and analyze information using tools, including calculators, microscopes, cameras, computers, hand lenses, metric rulers, Celsius thermometers, mirrors, spring scales, balances, graduated cylinders, beakers, hot plates, meter sticks, magnets, collecting nets, and notebooks; timing devices; and materials to support observation of habitats of organisms such as terrariums and aquariums.
- 5<sup>th</sup> Grade:



- 112.16.b.1: Scientific investigation and reasoning. The student conducts classroom and outdoor investigations following home and school safety procedures and environmentally appropriate and ethical practices. The student is expected to:
  - 112.16.b.1.A: demonstrate safe practices and the use of safety equipment as outlined in Texas Education Agency-approved safety standards during classroom and outdoor investigations using safety equipment, including safety goggles or chemical splash goggles, as appropriate, and gloves, as appropriate;
- 112.16.b.2: Scientific investigation and reasoning. The student uses scientific practices during laboratory and outdoor investigations. The student is expected to:
  - 112.16.b.2.A: describe, plan, and implement simple experimental investigations testing one variable;
- 112.16.b.4: Scientific investigation and reasoning. The student knows how to use a variety of tools and methods to conduct science inquiry. The student is expected to:
  - 112.16.b.4.A: collect, record, and analyze information using tools, including calculators, microscopes, cameras, computers, hand lenses, metric rulers, Celsius thermometers, prisms, mirrors, balances, spring scales, graduated cylinders, beakers, hot plates, meter sticks, magnets, collecting nets, and notebooks; timing devices; and materials to support observations of habitats or organisms such as terrariums and aquariums
- 112.16.b.5: Matter and energy. The student knows that matter has measurable physical properties and those properties determine how matter is classified, changed, and used. The student is expected to:
  - 112.16.b.5.A: classify matter based on measurable, testable, and observable physical properties, including mass, magnetism, physical state (solid, liquid, and gas), relative density (sinking and floating using water as a reference point), solubility in water, and the ability to conduct or insulate thermal energy or electric energy;
- Social Studies
  - 3<sup>rd</sup> Grade:
    - 113.14.b.17: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including electronic technology. The student is expected to:
      - 113.14.b.17.E: interpret and create visuals, including graphs, charts, tables, timelines, illustrations, and maps;



- 4<sup>th</sup> Grade:
  - 113.15.b.21: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including electronic technology. The student is expected to:
    - 113.15.b.21.C: organize and interpret information in outlines, reports, databases, and visuals, including graphs, charts, timelines, and maps;
- 5<sup>th</sup> Grade:
  - 113.16.b.24: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including electronic technology. The student is expected to:
    - 113.16.b.24.C: organize and interpret information in outlines, reports, databases, and visuals, including graphs, charts, timelines, and maps;

## **GIVE ME FIVE!**

- English Language Arts
  - 3<sup>rd</sup> Grade:
    - 110.5.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:
      - 110.5.b.1.C: speak coherently about the topic under discussion, employing eye contact, speaking rate, volume, enunciation, and the conventions of language to communicate ideas effectively;
  - 4<sup>th</sup> Grade:
    - 110.6.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:
      - 110.6.b.1.C: express an opinion supported by accurate information, employing eye contact, speaking rate, volume, enunciation, and the conventions of language to communicate ideas effectively; and
- Social Studies
  - 3<sup>rd</sup> Grade:
    - 113.14.b.17: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including electronic technology. The student is expected to:
      - 113.14.b.17.B: sequence and categorize information;



- 4<sup>th</sup> Grade:
  - 113.15.b.21: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including electronic technology. The student is expected to:
    - 113.15.b.21.B: analyze information by sequencing, categorizing, identifying cause-and-effect relationships, comparing, contrasting, finding the main idea, summarizing, making generalizations and predictions, and drawing inferences and conclusions;
  - 113.15.b.22: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
    - 113.15.b.22.C: express ideas orally based on research and experiences;
- 5<sup>th</sup> Grade:
  - 113.16.b.24: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including electronic technology. The student is expected to:
    - 113.16.b.24.B: analyze information by sequencing, categorizing, identifying cause-and-effect relationships, comparing, contrasting, finding the main idea, summarizing, making generalizations and predictions, and drawing inferences and conclusions;

## **GROCERY STORE PROBLEM SOLVING**

- English Language Arts
  - 3<sup>rd</sup> Grade:
    - 110.5.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:
      - 110.5.b.1.C: speak coherently about the topic under discussion, employing eye contact, speaking rate, volume, enunciation, and the conventions of language to communicate ideas effectively;
- Math
  - 3<sup>rd</sup> Grade:
    - 111.5.b.1: Mathematical process standards. The student uses mathematical processes to acquire and demonstrate mathematical understanding. The student is expected to:
      - 111.5.b.1.A: apply mathematics to problems arising in everyday life, society, and the workplace;





- 111.5.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;
  - 111.5.b.2: Number and operations. The student applies mathematical process standards to represent and compare whole numbers and understand relationships related to place value. The student is expected to:
    - 111.5.b.2.D: compare and order whole numbers up to 100,000 and represent comparisons using the symbols  $>$ ,  $<$ , or  $=$ .
  - 111.5.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 problems with efficiency and accuracy. The student is expected to:
    - 111.5.b.4.A: solve with fluency one-step and two-step problems involving addition and subtraction within 1,000 using strategies based on place value, properties of operations, and the relationship between addition and subtraction;
    - 111.5.b.4.G: use strategies and algorithms, including the standard algorithm, to multiply a two-digit number by a one-digit number. Strategies may include mental math, partial products, and the commutative, associative, and distributive properties;
    - 111.5.b.4.K: solve one-step and two-step problems involving multiplication and division within 100 using strategies based on objects; pictorial models, including arrays, area models, and equal groups; properties of operations; or recall of facts.
- 4<sup>th</sup> Grade:
  - 111.6.b.1: Mathematical process standards. The student uses mathematical processes to acquire and demonstrate mathematical understanding. The student is expected to:
    - 111.6.b.1.A: apply mathematics to problems arising in everyday life, society, and the workplace;
    - 111.6.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;
  - 111.6.b.2: Number and operations. The student applies mathematical process standards to represent, compare, and order whole numbers and decimals and understand relationships related to place value. The student is expected to:



- 111.6.b.2.C: compare and order whole numbers to 1,000,000,000 and represent comparisons using the symbols  $>$ ,  $<$ , or  $=$ ;
  - 111.6.b.2.D: round whole numbers to a given place value through the hundred thousands place;
- 111.6.b.4: Number and operations. The student applies mathematical process standards to develop and use strategies and methods for whole number computations and decimal sums and differences in order to solve problems with efficiency and accuracy. The student is expected to:
  - 111.6.b.4.A: add and subtract whole numbers and decimals to the hundredths place using the standard algorithm;
  - 111.6.b.4.D: use strategies and algorithms, including the standard algorithm, to multiply up to a four-digit number by a one-digit number and to multiply a two-digit number by a two-digit number. Strategies may include mental math, partial products, and the commutative, associative, and distributive properties;
  - 111.6.b.4.E: represent the quotient of up to a four-digit whole number divided by a one-digit whole number using arrays, area models, or equations;
  - 111.6.b.4.F: use strategies and algorithms, including the standard algorithm, to divide up to a four-digit dividend by a one-digit divisor;
  - 111.6.b.4.H: solve with fluency one- and two-step problems involving multiplication and division, including interpreting remainders.
- 5<sup>th</sup> Grade:
  - 111.7.b.1: Mathematical process standards. The student uses mathematical processes to acquire and demonstrate mathematical understanding. The student is expected to:
    - 111.7.b.1.A: apply mathematics to problems arising in everyday life, society, and the workplace;
    - 111.7.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;
  - 111.7.b.3: Number and operations. The student applies mathematical process standards to develop and use strategies and methods for positive rational number computations in order to solve problems with efficiency and accuracy. The student is expected to:
    - 111.7.b.3.B: multiply with fluency a three-digit number by a two-digit number using the standard algorithm;



- 111.7.b.3.C: solve with proficiency for quotients of up to a four-digit dividend by a two-digit divisor using strategies and the standard algorithm;
- 111.7.b.3.D: represent multiplication of decimals with products to the hundredths using objects and pictorial models, including area models;
- 111.7.b.3.E: solve for products of decimals to the hundredths, including situations involving money, using strategies based on place-value understandings, properties of operations, and the relationship to the multiplication of whole numbers;
- 111.7.b.3.I: represent and solve multiplication of a whole number and a fraction that refers to the same whole using objects and pictorial models, including area models;
- 111.7.b.3.K: add and subtract positive rational numbers fluently;
- Social Studies
  - 3<sup>rd</sup> Grade:
    - 113.14.b.5: Geography. The student understands the concepts of location, distance, and direction on maps and globes. The student is expected to:
      - 113.14.b.5.C: identify and use the compass rose, grid system, and symbols to locate places on maps and globes;
    - 113.14.b.17: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including electronic technology. The student is expected to:
      - 113.14.b.17.B: sequence and categorize information;
    - 113.14.b.18: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
      - 113.14.b.18.A: express ideas orally based on knowledge and experiences;
  - 4<sup>th</sup> Grade:
    - 113.15.b.22: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
      - 113.15.b.22.C: express ideas orally based on research and experiences;
  - 5<sup>th</sup> Grade:
    - 113.16.b.25:
      - 113.16.b.25.C: express ideas orally based on research and experiences;



## **GROWING PLANTS IN SCIENCE AND LITERATURE, MORE THAN AN EMPTY POT**

- English Language Arts

- 3<sup>rd</sup> Grade:

- 110.5.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:
      - 110.5.b.1.C: speak coherently about the topic under discussion, employing eye contact, speaking rate, volume, enunciation, and the conventions of language to communicate ideas effectively;
      - 110.5.b.1.D: work collaboratively with others by following agreed-upon rules, norms, and protocols;
    - 110.5.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:
      - 110.5.b.6.G: evaluate details read to determine key ideas;
      - 110.5.b.6.H: synthesize information to create new understanding;
    - 110.5.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:
      - 110.5.b.7.D: retell and paraphrase texts in ways that maintain meaning and logical order;
      - 110.5.b.7.E: interact with sources in meaningful ways such as notetaking, annotating, freewriting, or illustrating;
    - 110.5.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:
      - 110.5.b.8.C: analyze plot elements, including the sequence of events, the conflict, and the resolution; and

- 4<sup>th</sup> Grade:

- 110.6.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:
      - 110.6.b.1.C: express an opinion supported by accurate information, employing eye contact, speaking rate, volume,



enunciation, and the conventions of language to communicate ideas effectively; and

- 110.6.b.1.D: work collaboratively with others to develop a plan of shared responsibilities.
  - 110.6.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:
    - 110.6.b.6.G: evaluate details read to determine key ideas;
    - 110.6.b.6.H: synthesize information to create new understanding;
  - 110.6.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:
    - 110.6.b.7.D: retell, paraphrase, or summarize texts in ways that maintain meaning and logical order;
    - 110.6.b.7.E: interact with sources in meaningful ways such as notetaking, annotating, freewriting, or illustrating;
  - 110.6.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:
    - 110.6.b.8.C: analyze plot elements, including the rising action, climax, falling action, and resolution; and
- 5<sup>th</sup> Grade:
- 110.7.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:
    - 110.7.b.1.D: work collaboratively with others to develop a plan of shared responsibilities.
  - 110.7.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:
    - 110.7.b.6.G: evaluate details read to determine key ideas;



- 110.7.b.6.H: synthesize information to create new understanding; and
    - 110.7.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:
      - 110.7.b.7.D: retell, paraphrase, or summarize texts in ways that maintain meaning and logical order;
      - 110.7.b.7.E: interact with sources in meaningful ways such as notetaking, annotating, freewriting, or illustrating;
    - 110.7.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:
      - 110.7.b.8.C: analyze plot elements, including rising action, climax, falling action, and resolution; and
  - Science
    - 3<sup>rd</sup> Grade:
      - 112.14.b.2: Scientific investigation and reasoning. The student uses scientific practices during laboratory and outdoor investigations. The student is expected to:
        - 112.14.b.2.A: plan and implement descriptive investigations, including asking and answering questions, making inferences, and selecting and using equipment or technology needed, to solve a specific problem in the natural world;
        - 112.14.b.2.B: collect and record data by observing and measuring using the metric system and recognize differences between observed and measured data;
        - 112.14.b.2.D: analyze and interpret patterns in data to construct reasonable explanations based on evidence from investigations;
        - 112.14.b.2.E: demonstrate that repeated investigations may increase the reliability of results; and
    - 4<sup>th</sup> Grade:
      - 112.15.b.2: Scientific investigation and reasoning. The student uses scientific practices during laboratory and outdoor investigations. The student is expected to:
        - 112.15.b.2.A: plan and implement descriptive investigations, including asking well defined questions, making inferences, and



- selecting and using appropriate equipment or technology to answer his/her questions;
  - 112.15.b.2.B: collect and record data by observing and measuring, using the metric system, and using descriptive words and numerals such as labeled drawings, writing, and concept maps;
  - 112.15.b.2.D: analyze data and interpret patterns to construct reasonable explanations from data that can be observed and measured;
  - 112.15.b.2.F: communicate valid oral and written results supported by data.
  - 112.15.b.9: Organisms and environments. The student knows and understands that living organisms within an ecosystem interact with one another and with their environment. The student is expected to:
    - 112.15.b.9.A: investigate that most producers need sunlight, water, and carbon dioxide to make their own food, while consumers are dependent on other organisms for food; and
- 5<sup>th</sup> Grade:
  - 112.16.b.2: Scientific investigation and reasoning. The student uses scientific practices during laboratory and outdoor investigations. The student is expected to:
    - 112.16.b.2.A: describe, plan, and implement simple experimental investigations testing one variable;
    - 112.16.b.2.B: ask well defined questions, formulate testable hypotheses, and select and use appropriate equipment and technology;
    - 112.16.b.2.D: analyze and interpret information to construct reasonable explanations from direct (observable) and indirect (inferred) evidence;
    - 112.16.b.2.F: communicate valid conclusions in both written and verbal forms;
- Social Studies
  - 3<sup>rd</sup> Grade:
    - 113.14.b.17: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including electronic technology. The student is expected to:
      - 113.14.b.17.E: interpret and create visuals, including graphs, charts, tables, timelines, illustrations, and maps;
    - 113.14.b.18: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:



- 113.14.b.18.A: express ideas orally based on knowledge and experiences;
- 4<sup>th</sup> Grade:
  - 113.15.b.22: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
    - 113.15.b.22.C: express ideas orally based on research and experiences;
    - 113.15.b.22.D: create written and visual material such as journal entries, reports, graphic organizers, outlines, and bibliographies; and
- 5<sup>th</sup> Grade:
  - 113.16.b.25: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
    - 113.16.b.25.C: express ideas orally based on research and experiences;
    - 113.16.b.25.D: create written and visual material such as journal entries, reports, graphic organizers, outlines, and bibliographies; and

## **HIGH-TECH FARMING**

- English Language Arts
  - 3<sup>rd</sup> Grade:
    - 110.5.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:
      - 110.5.b.1.C: speak coherently about the topic under discussion, employing eye contact, speaking rate, volume, enunciation, and the conventions of language to communicate ideas effectively;
      - 110.5.b.1.D: work collaboratively with others by following agreed-upon rules, norms, and protocols;
    - 110.5.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:
      - 110.5.b.6.G: evaluate details read to determine key ideas;
      - 110.5.b.6.H: synthesize information to create new understanding;
    - 110.5.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:

- 110.5.b.7.E: interact with sources in meaningful ways such as notetaking, annotating, freewriting, or illustrating;

○ 4<sup>th</sup> Grade:

- 110.6.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:
  - 110.6.b.1.D: work collaboratively with others to develop a plan of shared responsibilities.
- 110.6.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:
  - 110.6.b.6.G: evaluate details read to determine key ideas;
  - 110.6.b.6.H: synthesize information to create new understanding;
- 110.6.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:
  - 110.6.b.7.E: interact with sources in meaningful ways such as notetaking, annotating, freewriting, or illustrating;

○ 5<sup>th</sup> Grade:

- 110.7.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:
  - 110.7.b.1.C: give an organized presentation employing eye contact, speaking rate, volume, enunciation, natural gestures, and conventions of language to communicate ideas effectively;
  - 110.7.b.1.D: work collaboratively with others to develop a plan of shared responsibilities.
- 110.7.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:
  - 110.7.b.6.G: evaluate details read to determine key ideas;
  - 110.7.b.6.H: synthesize information to create new understanding;



- 110.7.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:
  - 110.7.b.7.E: interact with sources in meaningful ways such as notetaking, annotating, freewriting, or illustrating;
- Social Studies
  - 3<sup>rd</sup> Grade:
    - 113.14.b.3: History. The student understands the concepts of time and chronology. The student is expected to:
      - 113.14.b.3.B: create and interpret timelines;
    - 113.14.b.16: Science, technology, and society. The student understands how individuals have created or invented new technology and affected life in various communities, past and present. The student is expected to:
      - 113.14.b.16.A: identify scientists and inventors, including Jonas Salk, Maria Mitchell, and others who have discovered scientific breakthroughs or created or invented new technology such as Cyrus McCormick, Bill Gates, and Louis Pasteur;
    - 113.14.b.17: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including electronic technology. The student is expected to:
      - 113.14.b.17.E: interpret and create visuals, including graphs, charts, tables, timelines, illustrations, and maps;
    - 113.14.b.18: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
      - 113.14.b.18.A: express ideas orally based on knowledge and experiences;
  - 4<sup>th</sup> Grade:
    - 113.15.b.20: Science, technology, and society. The student understands the impact of science and technology on life in Texas. The student is expected to:
      - 113.15.b.20.B: describe how scientific discoveries and innovations such as in aerospace, agriculture, energy, and technology have benefited individuals, businesses, and society in Texas;
    - 113.15.b.21: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including electronic technology. The student is expected to:
      - 113.15.b.21.C: organize and interpret information in outlines, reports, databases, and visuals, including graphs, charts, timelines, and maps;



- 113.15.b.22: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
  - 113.15.b.22.C: express ideas orally based on research and experiences;
- 113.15.b.23: Social studies skills. The student uses problem-solving and decision-making skills, working independently and with others, in a variety of settings. The student is expected to:
  - 113.15.b.23.A: use a problem-solving process to identify a problem, gather information, list and consider options, consider advantages and disadvantages, choose and implement a solution, and evaluate the effectiveness of the solution;
- 5<sup>th</sup> Grade:
  - 113.16.b.4: History. The student understands political, economic, and social changes that occurred in the United States during the 19th century. The student is expected to:
    - 113.16.b.4.F: explain how industry and the mechanization of agriculture changed the American way of life;
  - 113.16.b.23: Science, technology, and society. The student understands the impact of science and technology on society in the United States. The student is expected to:
    - 113.16.b.23.A: identify the accomplishments of notable individuals in the fields of science and technology, including Benjamin Franklin, Eli Whitney, John Deere, Thomas Edison, Alexander Graham Bell, George Washington Carver, the Wright Brothers, and Neil Armstrong;
  - 113.16.b.24: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including electronic technology. The student is expected to:
    - 113.16.b.24.C: organize and interpret information in outlines, reports, databases, and visuals, including graphs, charts, timelines, and maps;
  - 113.16.b.25: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
    - 113.16.b.25.C: express ideas orally based on research and experiences;
  - 113.16.b.26: Social studies skills. The student uses problem-solving and decision-making skills, working independently and with others, in a variety of settings. The student is expected to:
    - 113.16.b.26.A: use a problem-solving process to identify a problem, gather information, list and consider options, consider



advantages and disadvantages, choose and implement a solution, and evaluate the effectiveness of the solution;

## **KING COTTON**

- English Language Arts

- 3<sup>rd</sup> Grade:

- 110.5.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:
      - 110.5.b.1.C: speak coherently about the topic under discussion, employing eye contact, speaking rate, volume, enunciation, and the conventions of language to communicate ideas effectively;
      - 110.5.b.1.D: work collaboratively with others by following agreed-upon rules, norms, and protocols;
      - 110.5.b.1.E: develop social communication such as conversing politely in all situations;
    - 110.5.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:
      - 110.5.b.6.G: evaluate details read to determine key ideas;
      - 110.5.b.6.H: synthesize information to create new understanding;
    - 110.5.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:
      - 110.5.b.7.E: interact with sources in meaningful ways such as notetaking, annotating, freewriting, or illustrating;
    - 110.5.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:
      - 110.5.b.12.C: compose argumentative texts, including opinion essays, using genre characteristics and craft;

- 4<sup>th</sup> Grade:

- 110.6.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:



- 110.6.b.1.D: work collaboratively with others to develop a plan of shared responsibilities.
  - 110.6.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:
    - 110.6.b.6.G: evaluate details read to determine key ideas;
    - 110.6.b.6.H: synthesize information to create new understanding;
  - 110.6.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:
    - 110.6.b.7.E: interact with sources in meaningful ways such as notetaking, annotating, freewriting, or illustrating;
  - 110.6.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:
    - 110.6.b.12.C: compose argumentative texts, including opinion essays, using genre characteristics and craft;
- 5<sup>th</sup> Grade:
- 110.7.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:
    - 110.7.b.1.D: work collaboratively with others to develop a plan of shared responsibilities.
  - 110.7.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:
    - 110.7.b.6.G: evaluate details read to determine key ideas;
    - 110.7.b.6.H: synthesize information to create new understanding;
  - 110.7.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:
    - 110.7.b.7.E: interact with sources in meaningful ways such as notetaking, annotating, freewriting, or illustrating;



- 110.7.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:
  - 110.7.b.12.C: compose argumentative texts, including opinion essays, using genre characteristics and craft;
- Math
  - 3<sup>rd</sup> Grade:
    - 111.5.b.7: Geometry and measurement. The student applies mathematical process standards to select appropriate units, strategies, and tools to solve problems involving customary and metric measurement. The student is expected to:
      - 111.5.b.7.E: determine liquid volume (capacity) or weight using appropriate units and tools.
- Social Studies
  - 3<sup>rd</sup> Grade:
    - 113.14.b.3: History. The student understands the concepts of time and chronology. The student is expected to:
      - 113.14.b.3.B: create and interpret timelines;
    - 113.14.b.17: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including electronic technology. The student is expected to:
      - 113.14.b.17.B: sequence and categorize information;
      - 113.14.b.17.E: interpret and create visuals, including graphs, charts, tables, timelines, illustrations, and maps;
    - 113.14.b.18: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
      - 113.14.b.18.A: express ideas orally based on knowledge and experiences;
  - 4<sup>th</sup> Grade:
    - 113.15.b.21: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including electronic technology. The student is expected to:
      - 113.15.b.21.C: organize and interpret information in outlines, reports, databases, and visuals, including graphs, charts, timelines, and maps;
    - 113.15.b.22: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
      - 113.15.b.22.C: express ideas orally based on research and experiences;



- 113.15.b.22.D: create written and visual material such as journal entries, reports, graphic organizers, outlines, and bibliographies;
- 5<sup>th</sup> Grade:
  - 113.16.b.4: History. The student understands political, economic, and social changes that occurred in the United States during the 19th century. The student is expected to:
    - 113.16.b.4.E: identify the causes of the Civil War, including sectionalism, states' rights, and slavery, and the effects of the Civil War, including Reconstruction and the 13th, 14th, and 15th amendments to the U.S. Constitution;
    - 113.16.b.4.F: explain how industry and the mechanization of agriculture changed the American way of life;
  - 113.16.b.23: Science, technology, and society. The student understands the impact of science and technology on society in the United States. The student is expected to:
    - 113.16.b.23.A: identify the accomplishments of notable individuals in the fields of science and technology, including Benjamin Franklin, Eli Whitney, John Deere, Thomas Edison, Alexander Graham Bell, George Washington Carver, the Wright Brothers, and Neil Armstrong;
  - 113.16.b.24: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including electronic technology. The student is expected to:
    - 113.16.b.24.C: organize and interpret information in outlines, reports, databases, and visuals, including graphs, charts, timelines, and maps;
  - 113.16.b.25: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
    - 113.16.b.25.C: express ideas orally based on research and experiences;
    - 113.16.b.25.D: create written and visual material such as journal entries, reports, graphic organizers, outlines, and bibliographies;

## **LUSCIOUS LEAVES**

- English Language Arts
  - 3<sup>rd</sup> Grade:
    - 110.5.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:



- 110.5.b.1.C: speak coherently about the topic under discussion, employing eye contact, speaking rate, volume, enunciation, and the conventions of language to communicate ideas effectively;
    - 110.5.b.1.D: work collaboratively with others by following agreed-upon rules, norms, and protocols;
  - 110.5.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:
    - 110.5.b.7.F: respond using newly acquired vocabulary as appropriate;
- 4<sup>th</sup> Grade:
  - 110.6.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:
    - 110.6.b.1.D: work collaboratively with others to develop a plan of shared responsibilities.
  - 110.6.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:
    - 110.6.b.7.F: respond using newly acquired vocabulary as appropriate;
- 5<sup>th</sup> Grade:
  - 110.7.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:
    - 110.7.b.1.D: work collaboratively with others to develop a plan of shared responsibilities.
  - 110.7.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:
    - 110.7.b.7.F: respond using newly acquired vocabulary as appropriate;
- Math
  - 3<sup>rd</sup> Grade:





- 111.5.b.8: Data analysis. The student applies mathematical process standards to solve problems by collecting, organizing, displaying, and interpreting data. The student is expected to:
  - 111.5.b.8.A: summarize a data set with multiple categories using a frequency table, dot plot, pictograph, or bar graph with scaled intervals;
- Social Studies
  - 3<sup>rd</sup> Grade:
    - 113.14.b.17: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including electronic technology. The student is expected to:
      - 113.14.b.17.E: interpret and create visuals, including graphs, charts, tables, timelines, illustrations, and maps;
    - 113.14.b.18: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
      - 113.14.b.18.A: express ideas orally based on knowledge and experiences;
  - 4<sup>th</sup> Grade:
    - 113.15.b.21: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including electronic technology. The student is expected to:
      - 113.15.b.21.C: organize and interpret information in outlines, reports, databases, and visuals, including graphs, charts, timelines, and maps;
    - 113.15.b.22: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
      - 113.15.b.22.C: express ideas orally based on research and experiences;
  - 5<sup>th</sup> Grade:
    - 113.16.b.24: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including electronic technology. The student is expected to:
      - 113.16.b.24.C: organize and interpret information in outlines, reports, databases, and visuals, including graphs, charts, timelines, and maps;
    - 113.16.b.25: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
      - 113.16.b.25.C: express ideas orally based on research and experiences;



## **MACHINES IN AGRICULTURE**

- English Language Arts
  - 3<sup>rd</sup> Grade:
    - 110.5.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:
      - 110.5.b.1.C: speak coherently about the topic under discussion, employing eye contact, speaking rate, volume, enunciation, and the conventions of language to communicate ideas effectively;
      - 110.5.b.1.D: work collaboratively with others by following agreed-upon rules, norms, and protocols;
    - 110.5.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:
      - 110.5.b.6.G: evaluate details read to determine key ideas;
    - 110.5.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:
      - 110.5.b.9.B: explain rhyme scheme, sound devices, and structural elements such as stanzas in a variety of poems;
    - 110.5.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:
      - 110.5.b.11.D: edit drafts using standard English conventions, including:
        - 110.5.b.11.D.i: complete simple and compound sentences with subject-verb agreement;
        - 110.5.b.11.D.ii: past, present, and future verb tense;
        - 110.5.b.11.D.iii: singular, plural, common, and proper nouns;
        - 110.5.b.11.D.iv: adjectives, including their comparative and superlative forms;
        - 110.5.b.11.D.v: adverbs that convey time and adverbs that convey manner;
        - 110.5.b.11.D.vi: prepositions and prepositional phrases;



- 110.5.b.11.D.vii: pronouns, including subjective, objective, and possessive cases;
  - 110.5.b.11.D.viii: coordinating conjunctions to form compound subjects, predicates, and sentences;
  - 110.5.b.11.D.ix: capitalization of official titles of people, holidays, and geographical names and places;
  - 110.5.b.11.D.x: punctuation marks, including apostrophes in contractions and possessives and commas in compound sentences and items in a series; and
  - 110.5.b.11.D.xi: correct spelling of words with grade-appropriate orthographic patterns and rules and high-frequency words;
- 110.5.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:
  - 110.5.b.12.A: compose literary texts, including personal narratives and poetry, using genre characteristics and craft;
- 4<sup>th</sup> Grade:
  - 110.6.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:
    - 110.6.b.1.D: work collaboratively with others to develop a plan of shared responsibilities.
  - 110.6.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:
    - 110.5.b.6.G: evaluate details read to determine key ideas;
  - 110.6.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:
    - 110.6.b.11.D: edit drafts using standard English conventions, including:
      - 110.6.b.11.D.i: complete simple and compound sentences with subject-verb agreement and avoidance of splices, run-ons, and fragments;
      - 110.6.b.11.D.ii: past tense of irregular verbs;



- 110.6.b.11.D.iii: singular, plural, common, and proper nouns;
  - 110.6.b.11.D.iv: adjectives, including their comparative and superlative forms;
  - 110.6.b.11.D.v: adverbs that convey frequency and adverbs that convey degree;
  - 110.6.b.11.D.vi: prepositions and prepositional phrases;
  - 110.6.b.11.D.vii: pronouns, including reflexive;
  - 110.b.b.11.D.viii: coordinating conjunctions to form compound subjects, predicates, and sentences;
  - 110.6.b.11.D.ix: capitalization of historical periods, events, and documents; titles of books; stories and essays; and languages, races, and nationalities;
  - 110.6.b.11.D.x: punctuation marks, including apostrophes in possessives, commas in compound sentences, and quotation marks in dialogue; and
  - 110.6.b.11.D.xi: correct spelling of words with grade-appropriate orthographic patterns and rules and high-frequency words;
- 110.6.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:
  - 110.6.b.12.A: compose literary texts such as personal narratives and poetry using genre characteristics and craft;
- 5<sup>th</sup> Grade:
  - 110.7.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:
    - 110.7.b.1.C: give an organized presentation employing eye contact, speaking rate, volume, enunciation, natural gestures, and conventions of language to communicate ideas effectively;
    - 110.7.b.1.D: work collaboratively with others to develop a plan of shared responsibilities.
  - 110.7.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:
    - 110.7.b.6.G: evaluate details read to determine key ideas;



- 110.7.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:
  - 110.7.b.11.D: edit drafts using standard English conventions, including:
    - 110.7.b.11.D.i: complete simple and compound sentences with subject-verb agreement and avoidance of splices, run-ons, and fragments;
    - 110.7.b.11.D.ii: past tense of irregular verbs;
    - 110.7.b.11.D.iii: collective nouns;
    - 110.7.b.11.D.iv: adjectives, including their comparative and superlative forms;
    - 110.7.b.11.D.v: conjunctive adverbs;
    - 110.7.b.11.D.vi: prepositions and prepositional phrases and their influence on subject-verb agreement;
    - 110.7.b.11.D.vii: pronouns, including indefinite;
    - 110.7.b.11.D.viii: subordinating conjunctions to form complex sentences;
    - 110.7.b.11.D.ix: capitalization of abbreviations, initials, acronyms, and organizations;
    - 110.7.b.11.D.x: italics and underlining for titles and emphasis and punctuation marks, including quotation marks in dialogue and commas in compound and complex sentences; and
    - 110.7.b.11.D.xi: correct spelling of words with grade-appropriate orthographic patterns and rules and high-frequency words;
- 110.7.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:
  - 110.7.b.12.A: compose literary texts such as personal narratives, fiction, and poetry using genre characteristics and craft;
- Social Studies
  - 3<sup>rd</sup> Grade:
    - 113.14.b.17: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including electronic technology. The student is expected to:
      - 113.14.b.17.E: interpret and create visuals, including graphs, charts, tables, timelines, illustrations, and maps;



- 113.14.b.18: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
  - 113.14.b.18.A: express ideas orally based on knowledge and experiences;
  - 113.14.b.18.C: use standard grammar, spelling, sentence structure, and punctuation.
- 4<sup>th</sup> Grade:
  - 113.15.b.21: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including electronic technology. The student is expected to:
    - 113.15.b.21.C: organize and interpret information in outlines, reports, databases, and visuals, including graphs, charts, timelines, and maps;
  - 113.15.b.22: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
    - 113.15.b.22.C: express ideas orally based on research and experiences;
    - 113.15.b.22.E: use standard grammar, spelling, sentence structure, and punctuation.
- 5<sup>th</sup> Grade:
  - 113.16.b.24: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including electronic technology. The student is expected to:
    - 113.16.b.24.C: organize and interpret information in outlines, reports, databases, and visuals, including graphs, charts, timelines, and maps;
  - 113.16.b.25: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
    - 113.16.b.25.C: express ideas orally based on research and experiences;
    - 113.16.b.25.E: use standard grammar, spelling, sentence structure, and punctuation.

## **MAKING A BRAND FOR OURSELVES THE “COWBOY” WAY**

- English Language Arts
  - 3<sup>rd</sup> Grade:
    - 110.5.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:



- 110.5.b.1.C: speak coherently about the topic under discussion, employing eye contact, speaking rate, volume, enunciation, and the conventions of language to communicate ideas effectively;
    - 110.5.b.1.D: work collaboratively with others by following agreed-upon rules, norms, and protocols;
  - 110.5.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:
    - 110.5.b.6.G: evaluate details read to determine key ideas;
    - 110.5.b.6.I: monitor comprehension and make adjustments such as re-reading, using background knowledge, asking questions, and annotating when understanding breaks down.
  - 110.5.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:
    - 110.5.b.7.D: retell and paraphrase texts in ways that maintain meaning and logical order;
    - 110.5.b.7.F: respond using newly acquired vocabulary as appropriate;
  - 110.5.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:
    - 110.5.b.9.B: explain rhyme scheme, sound devices, and structural elements such as stanzas in a variety of poems;
  - 110.5.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:
    - 110.5.b.12.A: compose literary texts, including personal narratives and poetry, using genre characteristics and craft;
- 4<sup>th</sup> Grade:
- 110.6.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:



- 110.6.b.1.D: work collaboratively with others to develop a plan of shared responsibilities.
  - 110.6.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:
    - 110.6.b.6.G: evaluate details read to determine key ideas;
    - 110.6.b.6.I: monitor comprehension and make adjustments such as re-reading, using background knowledge, asking questions, and annotating when understanding breaks down.
  - 110.6.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:
    - 110.6.b.7.D: retell, paraphrase, or summarize texts in ways that maintain meaning and logical order;
    - 110.6.b.7.F: respond using newly acquired vocabulary as appropriate;
  - 110.6.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:
    - 110.6.b.12.A: compose literary texts such as personal narratives and poetry using genre characteristics and craft;
- 5<sup>th</sup> Grade:
- 110.7.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:
    - 110.7.b.1.C: give an organized presentation employing eye contact, speaking rate, volume, enunciation, natural gestures, and conventions of language to communicate ideas effectively;
    - 110.7.b.1.D: work collaboratively with others to develop a plan of shared responsibilities.
  - 110.7.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:
    - 110.7.b.6.G: evaluate details read to determine key ideas;





- 110.7.b.6.I: monitor comprehension and make adjustments such as re-reading, using background knowledge, asking questions, and annotating when understanding breaks down.
  - 110.7.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:
    - 110.7.b.7.D: retell, paraphrase, or summarize texts in ways that maintain meaning and logical order;
    - 110.7.b.7.E: interact with sources in meaningful ways such as notetaking, annotating, freewriting, or illustrating;
  - 110.7.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:
    - 110.7.b.12.A: compose literary texts such as personal narratives, fiction, and poetry using genre characteristics and craft;
- Social Studies
  - 3<sup>rd</sup> Grade:
    - 113.14.b.3: History. The student understands the concepts of time and chronology. The student is expected to:
      - 113.14.b.3.A: use vocabulary related to chronology, including past, present, and future times;
    - 113.14.b.17: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including electronic technology. The student is expected to:
      - 113.14.b.17.E: interpret and create visuals, including graphs, charts, tables, timelines, illustrations, and maps;
    - 113.14.b.18: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
      - 113.14.b.18.A: express ideas orally based on knowledge and experiences;
  - 4<sup>th</sup> Grade:
    - 113.15.b.4: History. The student understands the political, economic, and social changes in Texas during the last half of the 19th century. The student is expected to:
      - 113.15.b.4.B: explain the growth, development, and impact of the cattle industry, including contributions made by Charles Goodnight, Richard King, and Lizzie Johnson;



- 113.15.b.21: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including electronic technology. The student is expected to:
  - 113.15.b.21.C: organize and interpret information in outlines, reports, databases, and visuals, including graphs, charts, timelines, and maps;
- 113.15.b.22: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
  - 113.15.b.22.C: express ideas orally based on research and experiences;
- 5<sup>th</sup> Grade:
  - 113.16.b.24: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including electronic technology. The student is expected to:
    - 113.16.b.24.C: organize and interpret information in outlines, reports, databases, and visuals, including graphs, charts, timelines, and maps;
  - 113.16.b.25: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
    - 113.16.b.25.C: express ideas orally based on research and experiences;

## **MANY TYPES OF FARMS**

- English Language Arts
  - 3<sup>rd</sup> Grade:
    - 110.5.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:
      - 110.5.b.1.C: speak coherently about the topic under discussion, employing eye contact, speaking rate, volume, enunciation, and the conventions of language to communicate ideas effectively;
      - 110.5.b.1.D: work collaboratively with others by following agreed-upon rules, norms, and protocols;
    - 110.5.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:
      - 110.5.b.13.B: develop and follow a research plan with adult assistance;



- 110.5.b.13.C: identify and gather relevant information from a variety of sources;
  - 110.5.b.13.E: demonstrate understanding of information gathered;
  - 110.5.b.13.H: use an appropriate mode of delivery, whether written, oral, or multimodal, to present results.
- 4<sup>th</sup> Grade:
    - 110.6.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:
      - 110.6.b.1.D: work collaboratively with others to develop a plan of shared responsibilities.
    - 110.6.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:
      - 110.6.b.13.B: develop and follow a research plan with adult assistance;
      - 110.6.b.13.C: identify and gather relevant information from a variety of sources;
      - 110.6.b.13.E: identify primary and secondary sources;
      - 110.6.b.13.H: use an appropriate mode of delivery, whether written, oral, or multimodal, to present results.
  - 5<sup>th</sup> Grade:
    - 110.7.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:
      - 110.7.b.1.C: give an organized presentation employing eye contact, speaking rate, volume, enunciation, natural gestures, and conventions of language to communicate ideas effectively;
      - 110.7.b.1.D: work collaboratively with others to develop a plan of shared responsibilities.
    - 110.7.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:
      - 110.7.b.13.B: develop and follow a research plan with adult assistance;



- 110.7.b.13.C: identify and gather relevant information from a variety of sources;
  - 110.7.b.13.E: demonstrate understanding of information gathered;
  - 110.7.b.13.H: use an appropriate mode of delivery, whether written, oral, or multimodal, to present results.
- Science
  - 3<sup>rd</sup> Grade:
    - 112.14.b.9: Organisms and environments. The student knows and can describe patterns, cycles, systems, and relationships within the environments. The student is expected to:
      - 112.14.b.9.A: observe and describe the physical characteristics of environments and how they support populations and communities of plants and animals within an ecosystem;
- Social Studies
  - 3<sup>rd</sup> Grade:
    - 113.14.b.17: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including electronic technology. The student is expected to:
      - 113.14.b.17.E: interpret and create visuals, including graphs, charts, tables, timelines, illustrations, and maps;
    - 113.14.b.18: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
      - 113.14.b.18.A: express ideas orally based on knowledge and experiences;
  - 4<sup>th</sup> Grade:
    - 113.15.b.21: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including electronic technology. The student is expected to:
      - 113.15.b.21.C: organize and interpret information in outlines, reports, databases, and visuals, including graphs, charts, timelines, and maps;
    - 113.15.b.22: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
      - 113.15.b.22.C: express ideas orally based on research and experiences;
  - 5<sup>th</sup> Grade:
    - 113.16.b.24: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including electronic technology. The student is expected to:



- 113.16.b.24.C: organize and interpret information in outlines, reports, databases, and visuals, including graphs, charts, timelines, and maps;
- 113.16.b.25: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
  - 113.16.b.25.C: express ideas orally based on research and experiences;

## **MORE THAN ONE GRAIN OF RICE**

- English Language Arts
  - 3<sup>rd</sup> Grade:
    - 110.5.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:
      - 110.5.b.1.C: speak coherently about the topic under discussion, employing eye contact, speaking rate, volume, enunciation, and the conventions of language to communicate ideas effectively;
      - 110.5.b.1.D: work collaboratively with others by following agreed-upon rules, norms, and protocols;
    - 110.5.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:
      - 110.5.b.6.G: evaluate details read to determine key ideas;
      - 110.5.b.6.H: synthesize information to create new understanding;
      - 110.5.b.6.I: monitor comprehension and make adjustments such as re-reading, using background knowledge, asking questions, and annotating when understanding breaks down.
    - 110.5.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:
      - 110.5.b.7.G: discuss specific ideas in the text that are important to the meaning.
  - 4<sup>th</sup> Grade:
    - 110.6.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:



- 110.6.b.1.D: work collaboratively with others to develop a plan of shared responsibilities.
  - 110.6.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:
    - 110.6.b.6.G: evaluate details read to determine key ideas;
    - 110.6.b.6.H: synthesize information to create new understanding;
    - 110.6.b.6.I: monitor comprehension and make adjustments such as re-reading, using background knowledge, asking questions, and annotating when understanding breaks down.
  - 110.6.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:
    - 110.6.b.7.G: discuss specific ideas in the text that are important to the meaning.
- 5<sup>th</sup> Grade:
  - 110.7.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:
    - 110.7.b.1.D: work collaboratively with others to develop a plan of shared responsibilities.
  - 110.7.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:
    - 110.7.b.6.G: evaluate details read to determine key ideas;
    - 110.7.b.6.H: synthesize information to create new understanding;
    - 110.7.b.6.I: monitor comprehension and make adjustments such as re-reading, using background knowledge, asking questions, and annotating when understanding breaks down.
  - 110.7.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:
    - 110.7.b.7.G: discuss specific ideas in the text that are important to the meaning.
- Math



- 3<sup>rd</sup> Grade:
  - 111.5.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 problems with efficiency and accuracy. The student is expected to:
    - 111.5.b.4.A: solve with fluency one-step and two-step problems involving addition and subtraction within 1,000 using strategies based on place value, properties of operations, and the relationship between addition and subtraction;
    - 111.5.b.4.G: use strategies and algorithms, including the standard algorithm, to multiply a two-digit number by a one-digit number. Strategies may include mental math, partial products, and the commutative, associative, and distributive properties;
    - 111.5.b.4.J: determine a quotient using the relationship between multiplication and division;
    - 111.5.b.4.K: solve one-step and two-step problems involving multiplication and division within 100 using strategies based on objects; pictorial models, including arrays, area models, and equal groups; properties of operations; or recall of facts.
- 4<sup>th</sup> Grade:
  - 111.6.b.4: Number and operations. The student applies mathematical process standards to develop and use strategies and methods for whole number computations and decimal sums and differences in order to solve problems with efficiency and accuracy. The student is expected to:
    - 111.6.b.4.A: add and subtract whole numbers and decimals to the hundredths place using the standard algorithm;
    - 111.6.b.4.D: use strategies and algorithms, including the standard algorithm, to multiply up to a four-digit number by a one-digit number and to multiply a two-digit number by a two-digit number. Strategies may include mental math, partial products, and the commutative, associative, and distributive properties;
    - 111.6.b.4.E: represent the quotient of up to a four-digit whole number divided by a one-digit whole number using arrays, area models, or equations;
    - 111.6.b.4.F: use strategies and algorithms, including the standard algorithm, to divide up to a four-digit dividend by a one-digit divisor;
    - 111.6.b.4.H: solve with fluency one- and two-step problems involving multiplication and division, including interpreting remainders.



- 5<sup>th</sup> Grade:
  - 111.7.b.3: Number and operations. The student applies mathematical process standards to develop and use strategies and methods for positive rational number computations in order to solve problems with efficiency and accuracy. The student is expected to:
    - 111.7.b.3.B: multiply with fluency a three-digit number by a two-digit number using the standard algorithm;
    - 111.7.b.3.C: solve with proficiency for quotients of up to a four-digit dividend by a two-digit divisor using strategies and the standard algorithm;
    - 111.7.b.3.D: represent multiplication of decimals with products to the hundredths using objects and pictorial models, including area models;
    - 111.7.b.3.E: solve for products of decimals to the hundredths, including situations involving money, using strategies based on place-value understandings, properties of operations, and the relationship to the multiplication of whole numbers;
    - 111.7.b.3.K: add and subtract positive rational numbers fluently;
- Science
  - 3<sup>rd</sup> Grade:
    - 112.14.b.9: Organisms and environments. The student knows and can describe patterns, cycles, systems, and relationships within the environments. The student is expected to:
      - 112.14.b.9.A: observe and describe the physical characteristics of environments and how they support populations and communities of plants and animals within an ecosystem;
- Social Studies
  - 3<sup>rd</sup> Grade:
    - 113.14.b.4: Geography. The student understands how humans adapt to variations in the physical environment. The student is expected to:
      - 113.14.b.4.A: describe and explain variations in the physical environment, including climate, landforms, natural resources, and natural hazards;
    - 113.14.b.7: Economics. The student understands the concept of the free enterprise system. The student is expected to:
      - 113.14.b.7.B: explain the impact of scarcity on the production, distribution, and consumption of goods and services;
    - 113.14.b.8: Economics. The student understands how businesses operate in the U.S. free enterprise system. The student is expected to:





- 113.14.b.8.B: explain how supply and demand affect the price of a good or service;
  - 113.14.b.18: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
    - 113.14.b.18.A: express ideas orally based on knowledge and experiences;
- 4<sup>th</sup> Grade:
  - 113.15.b.11: Economics. The student understands the characteristics and benefits of the free enterprise system in Texas. The student is expected to:
    - 113.15.b.11.B: describe how the free enterprise system works, including supply and demand;
  - 113.15.b.22: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
    - 113.15.b.22.C: express ideas orally based on research and experiences;
- 5<sup>th</sup> Grade:
  - 113.16.b.12: Economics. The student understands the impact of supply and demand on consumers and producers in a free enterprise system. The student is expected to:
    - 113.16.b.12.A: explain how supply and demand affects consumers in the United States; and
    - 113.16.b.12.B: evaluate the effects of supply and demand on business, industry, and agriculture, including the plantation system, in the United States.
  - 113.16.b.25: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
    - 113.16.b.25.C: express ideas orally based on research and experiences;

## **MY FARM WEB**

- English Language Arts
  - 3<sup>rd</sup> Grade:
    - 110.5.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:
      - 110.5.b.1.C: speak coherently about the topic under discussion, employing eye contact, speaking rate, volume, enunciation, and the conventions of language to communicate ideas effectively;



- 110.5.b.1.D: work collaboratively with others by following agreed-upon rules, norms, and protocols;
  - 110.5.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:
    - 110.5.b.6.E: make connections to personal experiences, ideas in other texts, and society;
    - 110.5.b.6.G: evaluate details read to determine key ideas;
    - 110.5.b.6.H: synthesize information to create new understanding;
  - 110.5.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:
    - 110.5.b.7.F: respond using newly acquired vocabulary as appropriate;
- 4<sup>th</sup> Grade:
  - 110.6.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:
    - 110.6.b.1.D: work collaboratively with others to develop a plan of shared responsibilities.
  - 110.6.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:
    - 110.6.b.6.E: make connections to personal experiences, ideas in other texts, and society;
    - 110.6.b.6.G: evaluate details read to determine key ideas;
    - 110.6.b.6.H: synthesize information to create new understanding;
  - 110.6.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:
    - 110.6.b.7.F: respond using newly acquired vocabulary as appropriate;
- 5<sup>th</sup> Grade:
  - 110.7.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:

- 110.7.b.1.C: give an organized presentation employing eye contact, speaking rate, volume, enunciation, natural gestures, and conventions of language to communicate ideas effectively;
- 110.7.b.1.D: work collaboratively with others to develop a plan of shared responsibilities.
- 110.7.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:
  - 110.7.b.6.E: make connections to personal experiences, ideas in other texts, and society;
  - 110.7.b.6.G: evaluate details read to determine key ideas;
  - 110.7.b.6.H: synthesize information to create new understanding;
- 110.7.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:
  - 110.7.b.7.F: respond using newly acquired vocabulary as appropriate;

- Social Studies

- 3<sup>rd</sup> Grade:

- 113.14.b.17: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including electronic technology. The student is expected to:
      - 113.14.b.17.B: sequence and categorize information;
      - 113.14.b.17.E: interpret and create visuals, including graphs, charts, tables, timelines, illustrations, and maps;
    - 113.14.b.18: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
      - 113.14.b.18.A: express ideas orally based on knowledge and experiences;

- 4<sup>th</sup> Grade:

- 113.15.b.21: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including electronic technology. The student is expected to:
      - 113.15.b.21.C: organize and interpret information in outlines, reports, databases, and visuals, including graphs, charts, timelines, and maps;



- 113.15.b.22: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
  - 113.15.b.22.C: express ideas orally based on research and experiences;
  - 113.15.b.22.D: create written and visual material such as journal entries, reports, graphic organizers, outlines, and bibliographies;
- 5<sup>th</sup> Grade:
  - 113.16.b.24: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including electronic technology. The student is expected to:
    - 113.16.b.24.C: organize and interpret information in outlines, reports, databases, and visuals, including graphs, charts, timelines, and maps;
  - 113.16.b.25: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
    - 113.16.b.25.C: express ideas orally based on research and experiences;
    - 113.16.b.25.D: create written and visual material such as journal entries, reports, graphic organizers, outlines, and bibliographies;

## **PANCAKES!**

- English Language Arts
  - 3<sup>rd</sup> Grade:
    - 110.5.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:
      - 110.5.b.1.C: speak coherently about the topic under discussion, employing eye contact, speaking rate, volume, enunciation, and the conventions of language to communicate ideas effectively;
    - 110.5.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:
      - 110.5.b.6.G: evaluate details read to determine key ideas;
    - 110.5.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:



- 110.5.b.9.A: demonstrate knowledge of distinguishing characteristics of well-known children's literature such as folktales, fables, fairy tales, legends, and myths;
- 4<sup>th</sup> Grade:
  - 110.6.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:
    - 110.6.b.6.G: evaluate details read to determine key ideas;
  - 110.6.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:
    - 110.6.b.9.A: demonstrate knowledge of distinguishing characteristics of well-known children's literature such as folktales, fables, legends, myths, and tall tales;
- 5<sup>th</sup> Grade:
  - 110.7.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:
    - 110.7.b.6.G: evaluate details read to determine key ideas;
  - 110.7.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:
    - 110.7.b.9.A: demonstrate knowledge of distinguishing characteristics of well-known children's literature such as folktales, fables, legends, myths, and tall tales;
- Science
  - 3<sup>rd</sup> Grade:
    - 112.14.b.5: Matter and energy. The student knows that matter has measurable physical properties and those properties determine how matter is classified, changed, and used. The student is expected to:
      - 112.14.b.5.B: describe and classify samples of matter as solids, liquids, and gases and demonstrate that solids have a definite shape and that liquids and gases take the shape of their container;



- 112.14.b.5.C: predict, observe, and record changes in the state of matter caused by heating or cooling such as ice becoming liquid water, condensation forming on the outside of a glass of ice water, or liquid water being heated to the point of becoming water vapor; and
    - 112.14.b.5.D: explore and recognize that a mixture is created when two materials are combined such as gravel and sand or metal and plastic paper clips.
  - 4<sup>th</sup> Grade:
    - 112.15.b.5: Matter and energy. The student knows that matter has measurable physical properties and those properties determine how matter is classified, changed, and used. The student is expected to:
      - 112.15.b.5.A: measure, compare, and contrast physical properties of matter, including mass, volume, states (solid, liquid, gas), temperature, magnetism, and the ability to sink or float;
  - 5<sup>th</sup> Grade:
    - 112.16.b.5: Matter and energy. The student knows that matter has measurable physical properties and those properties determine how matter is classified, changed, and used. The student is expected to:
      - 112.16.b.5.C: identify changes that can occur in the physical properties of the ingredients of solutions such as dissolving salt in water or adding lemon juice to water.
- Social Studies
  - 3<sup>rd</sup> Grade:
    - 113.14.b.17: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including electronic technology. The student is expected to:
      - 113.14.b.17.B: sequence and categorize information;
    - 113.14.b.18: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
      - 113.14.b.18.A: express ideas orally based on knowledge and experiences;
  - 4<sup>th</sup> Grade:
    - 113.15.b.21: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including electronic technology. The student is expected to:
      - 113.15.b.21.B: analyze information by sequencing, categorizing, identifying cause-and-effect relationships, comparing, contrasting, finding the main idea, summarizing, making generalizations and predictions, and drawing inferences and conclusions;



- 113.15.b.21.C: organize and interpret information in outlines, reports, databases, and visuals, including graphs, charts, timelines, and maps;
  - 113.15.b.22: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
    - 113.15.b.22.C: express ideas orally based on research and experiences;
- 5<sup>th</sup> Grade:
  - 113.16.b.24: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including electronic technology. The student is expected to:
    - 113.16.b.24.B: analyze information by sequencing, categorizing, identifying cause-and-effect relationships, comparing, contrasting, finding the main idea, summarizing, making generalizations and predictions, and drawing inferences and conclusions;
    - 113.16.b.24.C: organize and interpret information in outlines, reports, databases, and visuals, including graphs, charts, timelines, and maps;
  - 113.16.b.25: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
    - 113.16.b.25.C: express ideas orally based on research and experiences;

## **PEAS IN A POD**

- English Language Arts
  - 3<sup>rd</sup> Grade:
    - 110.5.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:
      - 110.5.b.1.C: speak coherently about the topic under discussion, employing eye contact, speaking rate, volume, enunciation, and the conventions of language to communicate ideas effectively;
      - 110.5.b.1.D: work collaboratively with others by following agreed-upon rules, norms, and protocols;
  - 4<sup>th</sup> Grade:
    - 110.6.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:

- 110.6.b.1.D: work collaboratively with others to develop a plan of shared responsibilities.

○ 5<sup>th</sup> Grade:

- 110.7.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:
  - 110.7.b.1.D: work collaboratively with others to develop a plan of shared responsibilities.

• Math

○ 3<sup>rd</sup> Grade:

- 111.5.b.1: Mathematical process standards. The student uses mathematical processes to acquire and demonstrate mathematical understanding. The student is expected to:
  - 111.5.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;
  - 111.5.b.1.D: communicate mathematical ideas, reasoning, and their implications using multiple representations, including symbols, diagrams, graphs, and language as appropriate;

○ 4<sup>th</sup> Grade:

- 111.6.b.1: Mathematical process standards. The student uses mathematical processes to acquire and demonstrate mathematical understanding. The student is expected to:
  - 111.6.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;
  - 111.6.b.1.D: communicate mathematical ideas, reasoning, and their implications using multiple representations, including symbols, diagrams, graphs, and language as appropriate;

○ 5<sup>th</sup> Grade:

- 111.7.b.1: Mathematical process standards. The student uses mathematical processes to acquire and demonstrate mathematical understanding. The student is expected to:





- 111.7.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;
- 111.7.b.1.D: communicate mathematical ideas, reasoning, and their implications using multiple representations, including symbols, diagrams, graphs, and language as appropriate;
- Science
  - 4<sup>th</sup> Grade:
    - 112.15.b.10: Organisms and environments. The student knows that organisms undergo similar life processes and have structures and behaviors that help them survive within their environment. The student is expected to:
      - 112.15.b.10.B: explore and describe examples of traits that are inherited from parents to offspring such as eye color and shapes of leaves and behaviors that are learned such as reading a book and a wolf pack teaching their pups to hunt effectively;
- Social Studies
  - 3<sup>rd</sup> Grade:
    - 113.14.b.16: Science, technology, and society. The student understands how individuals have created or invented new technology and affected life in various communities, past and present. The student is expected to:
      - 113.14.b.16.A: identify scientists and inventors, including Jonas Salk, Maria Mitchell, and others who have discovered scientific breakthroughs or created or invented new technology such as Cyrus McCormick, Bill Gates, and Louis Pasteur;
    - 113.14.b.18: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
      - 113.14.b.18.A: express ideas orally based on knowledge and experiences;
  - 4<sup>th</sup> Grade:
    - 113.15.b.22: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
      - 113.15.b.22.C: express ideas orally based on research and experiences;
  - 5<sup>th</sup> Grade:
    - 113.16.b.23: Science, technology, and society. The student understands the impact of science and technology on society in the United States. The student is expected to:



- 113.16.b.23.A: identify the accomplishments of notable individuals in the fields of science and technology, including Benjamin Franklin, Eli Whitney, John Deere, Thomas Edison, Alexander Graham Bell, George Washington Carver, the Wright Brothers, and Neil Armstrong;
- 113.16.b.25: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
  - 113.16.b.25.C: express ideas orally based on research and experiences;

## **PIGS ON THE FARM**

- English Language Arts
  - 3<sup>rd</sup> Grade:
    - 110.5.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:
      - 110.5.b.1.C: speak coherently about the topic under discussion, employing eye contact, speaking rate, volume, enunciation, and the conventions of language to communicate ideas effectively;
      - 110.5.b.1.D: work collaboratively with others by following agreed-upon rules, norms, and protocols;
  - 4<sup>th</sup> Grade:
    - 110.6.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:
      - 110.6.b.1.D: work collaboratively with others to develop a plan of shared responsibilities.
  - 5<sup>th</sup> Grade:
    - 110.7.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:
      - 110.7.b.1.C: give an organized presentation employing eye contact, speaking rate, volume, enunciation, natural gestures, and conventions of language to communicate ideas effectively;
      - 110.7.b.1.D: work collaboratively with others to develop a plan of shared responsibilities.
- Science



- 3<sup>rd</sup> Grade:
  - 112.14.b.9: Organisms and environments. The student knows and can describe patterns, cycles, systems, and relationships within the environments. The student is expected to:
    - 112.14.b.9.A: observe and describe the physical characteristics of environments and how they support populations and communities of plants and animals within an ecosystem;
- 4<sup>th</sup> Grade:
  - 112.15.b.10: Organisms and environments. The student knows that organisms undergo similar life processes and have structures and behaviors that help them survive within their environment. The student is expected to:
    - 112.15.b.10.A: explore how structures and functions enable organisms to survive in their environment;
- Social Studies
  - 3<sup>rd</sup> Grade:
    - 113.14.b.17: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including electronic technology. The student is expected to:
      - 113.14.b.17.E: interpret and create visuals, including graphs, charts, tables, timelines, illustrations, and maps;
    - 113.14.b.18: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
      - 113.14.b.18.A: express ideas orally based on knowledge and experiences;
    - 113.14.b.19: Social studies skills. The student uses problem-solving and decision-making skills, working independently and with others, in a variety of settings. The student is expected to:
      - 113.14.b.19.A: use a problem-solving process to identify a problem, gather information, list and consider options, consider advantages and disadvantages, choose and implement a solution, and evaluate the effectiveness of the solution;
  - 4<sup>th</sup> Grade:
    - 113.15.b.22: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
      - 113.15.b.22.C: express ideas orally based on research and experiences;
    - 113.15.b.23: Social studies skills. The student uses problem-solving and decision-making skills, working independently and with others, in a variety of settings. The student is expected to:



- 113.15.b.23.A: use a problem-solving process to identify a problem, gather information, list and consider options, consider advantages and disadvantages, choose and implement a solution, and evaluate the effectiveness of the solution;
- 5<sup>th</sup> Grade:
  - 113.6.b.25: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
    - 113.6.b.25.C: express ideas orally based on research and experiences;
  - 113.16.b.26: Social studies skills. The student uses problem-solving and decision-making skills, working independently and with others, in a variety of settings. The student is expected to:
    - 113.6.b.26.A: use a problem-solving process to identify a problem, gather information, list and consider options, consider advantages and disadvantages, choose and implement a solution, and evaluate the effectiveness of the solution;

## **PROPERTIES OF SOILS**

- English Language Arts
  - 3<sup>rd</sup> Grade:
    - 110.5.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:
      - 110.5.b.1.C: speak coherently about the topic under discussion, employing eye contact, speaking rate, volume, enunciation, and the conventions of language to communicate ideas effectively;
      - 110.5.b.1.D: work collaboratively with others by following agreed-upon rules, norms, and protocols;
  - 4<sup>th</sup> Grade:
    - 110.6.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:
      - 110.6.b.1.D: work collaboratively with others to develop a plan of shared responsibilities.
  - 5<sup>th</sup> Grade:
    - 110.7.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:

- 110.7.b.1.C: give an organized presentation employing eye contact, speaking rate, volume, enunciation, natural gestures, and conventions of language to communicate ideas effectively;
- 110.7.b.1.D: work collaboratively with others to develop a plan of shared responsibilities.

- Science

- 3<sup>rd</sup> Grade:

- 112.14.b.2: Scientific investigation and reasoning. The student uses scientific practices during laboratory and outdoor investigations. The student is expected to:
      - 112.14.b.2.B: collect and record data by observing and measuring using the metric system and recognize differences between observed and measured data;
      - 112.14.b.2.F: communicate valid conclusions supported by data in writing, by drawing pictures, and through verbal discussion.
    - 112.14.b.7: Earth and space. The student knows that Earth consists of natural resources and its surface is constantly changing. The student is expected to:
      - 112.14.b.7.A: explore and record how soils are formed by weathering of rock and the decomposition of plant and animal remains;

- 4<sup>th</sup> Grade:

- 112.15.b.2: Scientific investigation and reasoning. The student uses scientific practices during laboratory and outdoor investigations. The student is expected to:
      - 112.15.b.2.B: collect and record data by observing and measuring, using the metric system, and using descriptive words and numerals such as labeled drawings, writing, and concept maps;
      - 112.15.b.2.F: communicate valid oral and written results supported by data.
    - 112.15.b.7: Earth and space. The students know that Earth consists of useful resources and its surface is constantly changing. The student is expected to:
      - 112.15.b.7.A: examine properties of soils, including color and texture, capacity to retain water, and ability to support the growth of plants;

- 5<sup>th</sup> Grade:



- 112.16.b.2: Scientific investigation and reasoning. The student uses scientific practices during laboratory and outdoor investigations. The student is expected to:
  - 112.16.b.2.A: describe, plan, and implement simple experimental investigations testing one variable;
  - 112.16.b.2.C: collect and record information using detailed observations and accurate measuring;
  - 112.16.b.2.F: communicate valid conclusions in both written and verbal forms;
- Social Studies
  - 3<sup>rd</sup> Grade:
    - 113.14.b.17: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including electronic technology. The student is expected to:
      - 113.14.b.17.B: sequence and categorize information;
    - 113.14.b.18: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
      - 113.14.b.18.A: express ideas orally based on knowledge and experiences;
  - 4<sup>th</sup> Grade:
    - 113.15.b.21: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including electronic technology. The student is expected to:
      - 113.15.b.21.B: analyze information by sequencing, categorizing, identifying cause-and-effect relationships, comparing, contrasting, finding the main idea, summarizing, making generalizations and predictions, and drawing inferences and conclusions;
    - 113.15.b.22: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
      - 113.15.b.22.C: express ideas orally based on research and experiences;
  - 5<sup>th</sup> Grade:
    - 113.16.b.24: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including electronic technology. The student is expected to:
      - 113.16.b.24.B: analyze information by sequencing, categorizing, identifying cause-and-effect relationships, comparing, contrasting,



finding the main idea, summarizing, making generalizations and predictions, and drawing inferences and conclusions;

- 113.16.b.25: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
  - 113.16.b.25.C: express ideas orally based on research and experiences;

## **SIGNIFICANT SURROUNDINGS**

- English Language Arts
  - 3<sup>rd</sup> Grade:
    - 110.5.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:
      - 110.5.b.1.C: speak coherently about the topic under discussion, employing eye contact, speaking rate, volume, enunciation, and the conventions of language to communicate ideas effectively;
      - 110.5.b.1.D: work collaboratively with others by following agreed-upon rules, norms, and protocols;
    - 110.5.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:
      - 110.5.b.11.D: edit drafts using standard English conventions, including:
        - 110.5.b.11.D.i: complete simple and compound sentences with subject-verb agreement;
        - 110.5.b.11.D.ii: past, present, and future verb tense;
        - 110.5.b.11.D.iii: singular, plural, common, and proper nouns;
        - 110.5.b.11.D.iv: adjectives, including their comparative and superlative forms;
        - 110.5.b.11.D.v: adverbs that convey time and adverbs that convey manner;
        - 110.5.b.11.D.vi: prepositions and prepositional phrases;
        - 110.5.b.11.D.vii: pronouns, including subjective, objective, and possessive cases;
        - 110.5.b.11.D.viii: coordinating conjunctions to form compound subjects, predicates, and sentences;



- 110.5.b.11.D.ix: capitalization of official titles of people, holidays, and geographical names and places;
  - 110.5.b.11.D.x: punctuation marks, including apostrophes in contractions and possessives and commas in compound sentences and items in a series; and
  - 110.5.b.11.D.xi: correct spelling of words with grade-appropriate orthographic patterns and rules and high-frequency words;
- 110.5.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:
  - 110.5.b.12.B: compose informational texts, including brief compositions that convey information about a topic, using a clear central idea and genre characteristics and craft;
- 110.5.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:
  - 110.5.b.13.A: generate questions on a topic for formal and informal inquiry;
  - 110.5.b.13.B: develop and follow a research plan with adult assistance;
  - 110.5.b.13.C: identify and gather relevant information from a variety of sources;
  - 110.5.b.13.E: demonstrate understanding of information gathered;
  - 110.5.b.13.H: use an appropriate mode of delivery, whether written, oral, or multimodal, to present results.
- 4<sup>th</sup> Grade:
  - 110.6.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:
    - 110.6.b.1.D: work collaboratively with others to develop a plan of shared responsibilities.
  - 110.6.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:





- 110.6.b.11.D: edit drafts using standard English conventions, including:
  - 110.6.b.11.D.i: complete simple and compound sentences with subject-verb agreement and avoidance of splices, run-ons, and fragments;
  - 110.6.b.11.D.ii: past tense of irregular verbs;
  - 110.6.b.11.D.iii: singular, plural, common, and proper nouns;
  - 110.6.b.11.D.iv: adjectives, including their comparative and superlative forms;
  - 110.6.b.11.D.v: adverbs that convey frequency and adverbs that convey degree;
  - 110.6.b.11.D.vi: prepositions and prepositional phrases;
  - 110.6.b.11.D.vii: pronouns, including reflexive;
  - 110.6.b.11.D.viii: coordinating conjunctions to form compound subjects, predicates, and sentences;
  - 110.6.b.11.D.ix: capitalization of historical periods, events, and documents; titles of books; stories and essays; and languages, races, and nationalities;
  - 110.6.b.11.D.x: punctuation marks, including apostrophes in possessives, commas in compound sentences, and quotation marks in dialogue; and
  - 110.6.b.11.D.xi: correct spelling of words with grade-appropriate orthographic patterns and rules and high-frequency words;
- 110.6.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:
  - 110.6.b.12.B: compose informational texts, including brief compositions that convey information about a topic, using a clear central idea and genre characteristics and craft;
- 110.6.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:
  - 110.6.b.13.A: generate and clarify questions on a topic for formal and informal inquiry;
  - 110.6.b.13.B: develop and follow a research plan with adult assistance;



- 110.6.b.13.C: identify and gather relevant information from a variety of sources;
  - 110.6.b.13.E: identify primary and secondary sources;
  - 110.6.b.13.H: use an appropriate mode of delivery, whether written, oral, or multimodal, to present results.
- 5<sup>th</sup> Grade:
    - 110.7.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:
      - 110.7.b.1.D: work collaboratively with others to develop a plan of shared responsibilities.
    - 110.7.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:
      - 110.7.b.11.D: edit drafts using standard English conventions, including:
        - 110.7.b.11.D.i: complete simple and compound sentences with subject-verb agreement and avoidance of splices, run-ons, and fragments;
        - 110.7.b.11.D.ii: past tense of irregular verbs;
        - 110.7.b.11.D.iii: collective nouns;
        - 110.7.b.11.D.iv: adjectives, including their comparative and superlative forms;
        - 110.7.b.11.D.v: conjunctive adverbs;
        - 110.7.b.11.D.vi: prepositions and prepositional phrases and their influence on subject-verb agreement;
        - 110.7.b.11.D.vii: pronouns, including indefinite;
        - 110.7.b.11.D.viii: subordinating conjunctions to form complex sentences;
        - 110.7.b.11.D.ix: capitalization of abbreviations, initials, acronyms, and organizations;
        - 110.7.b.11.D.x: italics and underlining for titles and emphasis and punctuation marks, including quotation marks in dialogue and commas in compound and complex sentences; and



- 110.7.b.11.D.xi: correct spelling of words with grade-appropriate orthographic patterns and rules and high-frequency words;
  - 110.7.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:
    - 110.7.b.12.B: compose informational texts, including brief compositions that convey information about a topic, using a clear central idea and genre characteristics and craft;
  - 110.7.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:
    - 110.7.b.13.A: generate and clarify questions on a topic for formal and informal inquiry;
    - 110.7.b.13.B: develop and follow a research plan with adult assistance;
    - 110.7.b.13.C: identify and gather relevant information from a variety of sources;
    - 110.7.b.13.E: demonstrate understanding of information gathered;
    - 110.7.b.13.H: use an appropriate mode of delivery, whether written, oral, or multimodal, to present results.
- Math
  - 3<sup>rd</sup> Grade:
    - 111.5.b.3: Number and operations. The student applies mathematical process standards to represent and explain fractional units. The student is expected to:
      - 111.5.b.3.A: represent fractions greater than zero and less than or equal to one with denominators of 2, 3, 4, 6, and 8 using concrete objects and pictorial models, including strip diagrams and number lines;
      - 111.5.b.3.F: represent equivalent fractions with denominators of 2, 3, 4, 6, and 8 using a variety of objects and pictorial models, including number lines;
    - 111.5.b.8: Data analysis. The student applies mathematical process standards to solve problems by collecting, organizing, displaying, and interpreting data. The student is expected to:



- 111.5.b.8.A: summarize a data set with multiple categories using a frequency table, dot plot, pictograph, or bar graph with scaled intervals;
- Science
  - 3<sup>rd</sup> Grade:
    - 112.14.b.2: Scientific investigation and reasoning. The student uses scientific practices during laboratory and outdoor investigations. The student is expected to:
      - 112.14.b.2.A: plan and implement descriptive investigations, including asking and answering questions, making inferences, and selecting and using equipment or technology needed, to solve a specific problem in the natural world;
      - 112.14.b.2.B: collect and record data by observing and measuring using the metric system and recognize differences between observed and measured data;
      - 112.14.b.2.C: construct maps, graphic organizers, simple tables, charts, and bar graphs using tools and current technology to organize, examine, and evaluate measured data;
      - 112.14.b.2.D: analyze and interpret patterns in data to construct reasonable explanations based on evidence from investigations;
      - 112.14.b.2.F: communicate valid conclusions supported by data in writing, by drawing pictures, and through verbal discussion.
    - 112.14.b.9: Organisms and environments. The student knows and can describe patterns, cycles, systems, and relationships within the environments. The student is expected to:
      - 112.14.b.9.A: observe and describe the physical characteristics of environments and how they support populations and communities of plants and animals within an ecosystem;
  - 4<sup>th</sup> Grade:
    - 112.15.b.2: Scientific investigation and reasoning. The student uses scientific practices during laboratory and outdoor investigations. The student is expected to:
      - 112.15.b.2.A: plan and implement descriptive investigations, including asking well defined questions, making inferences, and selecting and using appropriate equipment or technology to answer his/her questions;
      - 112.15.b.2.B: collect and record data by observing and measuring, using the metric system, and using descriptive words and numerals such as labeled drawings, writing, and concept maps;



- 112.15.b.2.C: construct simple tables, charts, bar graphs, and maps using tools and current technology to organize, examine, and evaluate data;
  - 112.15.b.2.D: analyze data and interpret patterns to construct reasonable explanations from data that can be observed and measured;
  - 112.15.b.2.F: communicate valid oral and written results supported by data.
- 5<sup>th</sup> Grade:
  - 112.16.b.2: Scientific investigation and reasoning. The student uses scientific practices during laboratory and outdoor investigations. The student is expected to:
    - 112.16.b.2.A: describe, plan, and implement simple experimental investigations testing one variable;
    - 112.16.b.2.B: ask well defined questions, formulate testable hypotheses, and select and use appropriate equipment and technology;
    - 112.16.b.2.C: collect and record information using detailed observations and accurate measuring;
    - 112.16.b.2.D: analyze and interpret information to construct reasonable explanations from direct (observable) and indirect (inferred) evidence;
    - 112.16.b.2.F: communicate valid conclusions in both written and verbal forms;
  - 112.16.b.9: Organisms and environments. The student knows that there are relationships, systems, and cycles within environments. The student is expected to:
    - 112.16.b.9.A: observe the way organisms live and survive in their ecosystem by interacting with the living and nonliving components;
- Social Studies
  - 3<sup>rd</sup> Grade:
    - 113.14.b.18: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
      - 113.14.b.18.A: express ideas orally based on knowledge and experiences;
      - 113.14.b.18.C: use standard grammar, spelling, sentence structure, and punctuation.
  - 4<sup>th</sup> Grade:



- 113.15.b.21: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including electronic technology. The student is expected to:
  - 113.15.b.21.C: organize and interpret information in outlines, reports, databases, and visuals, including graphs, charts, timelines, and maps;
  - 113.15.b.21.E: use appropriate mathematical skills to interpret social studies information such as maps and graphs.
- 5<sup>th</sup> Grade:
  - 113.16.b.25: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
    - 113.16.b.25.C: express ideas orally based on research and experiences;
    - 113.16.b.25.E: use standard grammar, spelling, sentence structure, and punctuation.

## **THE FARMER GROWS A RAINBOW: “FOUR” GOODNESS’ SAKE**

- English Language Arts
  - 3<sup>rd</sup> Grade:
    - 110.5.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:
      - 110.5.b.1.C: speak coherently about the topic under discussion, employing eye contact, speaking rate, volume, enunciation, and the conventions of language to communicate ideas effectively;
      - 110.5.b.1.D: work collaboratively with others by following agreed-upon rules, norms, and protocols;
    - 110.5.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:
      - 110.5.b.11.D: edit drafts using standard English conventions, including:
        - 110.5.b.11.D.i: complete simple and compound sentences with subject-verb agreement;
        - 110.5.b.11.D.ii: past, present, and future verb tense;
        - 110.5.b.11.D.iii: singular, plural, common, and proper nouns;



- 110.5.b.11.D.iv: adjectives, including their comparative and superlative forms;
  - 110.5.b.11.D.v: adverbs that convey time and adverbs that convey manner;
  - 110.5.b.11.D.vi: prepositions and prepositional phrases;
  - 110.5.b.11.D.vii: pronouns, including subjective, objective, and possessive cases;
  - 110.5.b.11.D.viii: coordinating conjunctions to form compound subjects, predicates, and sentences;
  - 110.5.b.11.D.ix: capitalization of official titles of people, holidays, and geographical names and places;
  - 110.5.b.11.D.x: punctuation marks, including apostrophes in contractions and possessives and commas in compound sentences and items in a series; and
  - 110.5.b.11.D.xi: correct spelling of words with grade-appropriate orthographic patterns and rules and high-frequency words;
- 110.5.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:
  - 110.5.b.12.A: compose literary texts, including personal narratives and poetry, using genre characteristics and craft;
- 110.5.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:
  - 110.5.b.13.C: identify and gather relevant information from a variety of sources;
  - 110.5.b.13.E: demonstrate understanding of information gathered;
  - 110.5.b.13.H: use an appropriate mode of delivery, whether written, oral, or multimodal, to present results.
- 4<sup>th</sup> Grade:
  - 110.6.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:
    - 110.6.b.1.D: work collaboratively with others to develop a plan of shared responsibilities.



- 110.6.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:
  - 110.6.b.11.D: edit drafts using standard English conventions, including:
    - 110.6.b.11.D.i: complete simple and compound sentences with subject-verb agreement and avoidance of splices, run-ons, and fragments;
    - 110.6.b.11.D.ii: past tense of irregular verbs;
    - 110.6.b.11.D.iii: singular, plural, common, and proper nouns;
    - 110.6.b.11.D.iv: adjectives, including their comparative and superlative forms;
    - 110.6.b.11.D.v: adverbs that convey frequency and adverbs that convey degree;
    - 110.6.b.11.D.vi: prepositions and prepositional phrases;
    - 110.6.b.11.D.vii: pronouns, including reflexive;
    - 110.6.b.11.D.viii: coordinating conjunctions to form compound subjects, predicates, and sentences;
    - 110.6.b.11.D.ix: capitalization of historical periods, events, and documents; titles of books; stories and essays; and languages, races, and nationalities;
    - 110.6.b.11.D.x: punctuation marks, including apostrophes in possessives, commas in compound sentences, and quotation marks in dialogue; and
    - 110.6.b.11.D.xi: correct spelling of words with grade-appropriate orthographic patterns and rules and high-frequency words;
- 110.6.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:
  - 110.6.b.12.A: compose literary texts such as personal narratives and poetry using genre characteristics and craft;
- 110.6.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:
  - 110.6.b.13.C: identify and gather relevant information from a variety of sources;





- 110.6.b.13.E: identify primary and secondary sources;
- 110.6.b.13.H: use an appropriate mode of delivery, whether written, oral, or multimodal, to present results.
- 5<sup>th</sup> Grade:
  - 110.7.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:
    - 110.7.b.1.D: work collaboratively with others to develop a plan of shared responsibilities.
  - 110.7.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:
    - 110.7.b.11.D: edit drafts using standard English conventions, including:
      - 110.7.b.11.D.i: complete simple and compound sentences with subject-verb agreement and avoidance of splices, run-ons, and fragments;
      - 110.7.b.11.D.ii: past tense of irregular verbs;
      - 110.7.b.11.D.iii: collective nouns;
      - 110.7.b.11.D.iv: adjectives, including their comparative and superlative forms;
      - 110.7.b.11.D.v: conjunctive adverbs;
      - 110.7.b.11.D.vi: prepositions and prepositional phrases and their influence on subject-verb agreement;
      - 110.7.b.11.D.vii: pronouns, including indefinite;
      - 110.7.b.11.D.viii: subordinating conjunctions to form complex sentences;
      - 110.7.b.11.D.ix: capitalization of abbreviations, initials, acronyms, and organizations;
      - 110.7.b.11.D.x: italics and underlining for titles and emphasis and punctuation marks, including quotation marks in dialogue and commas in compound and complex sentences; and
      - 110.7.b.11.D.xi: correct spelling of words with grade-appropriate orthographic patterns and rules and high-frequency words;
  - 110.7.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:

- 110.7.b.12.A: compose literary texts such as personal narratives, fiction, and poetry using genre characteristics and craft;
- 110.7.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:
  - 110.7.b.13.C: identify and gather relevant information from a variety of sources;
  - 110.7.b.13.E: demonstrate understanding of information gathered;
  - 110.7.b.13.H: use an appropriate mode of delivery, whether written, oral, or multimodal, to present results.
- Social Studies
  - 3<sup>rd</sup> Grade:
    - 113.14.b.17: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including electronic technology. The student is expected to:
      - 113.14.b.17.B: sequence and categorize information;
    - 113.14.b.18: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
      - 113.14.b.18.A: express ideas orally based on knowledge and experiences;
      - 113.14.b.18.C: use standard grammar, spelling, sentence structure, and punctuation.
  - 4<sup>th</sup> Grade:
    - 113.15.b.21: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including electronic technology. The student is expected to:
      - 113.15.b.21.B: analyze information by sequencing, categorizing, identifying cause-and-effect relationships, comparing, contrasting, finding the main idea, summarizing, making generalizations and predictions, and drawing inferences and conclusions;
    - 113.15.b.22: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
      - 113.15.b.22.C: express ideas orally based on research and experiences;
      - 113.15.b.22.E: use standard grammar, spelling, sentence structure, and punctuation.



- 5<sup>th</sup> Grade:
  - 113.16.b.22: Culture. The student understands the contributions of people of various racial, ethnic, and religious groups to the United States. The student is expected to:
    - 113.16.b.22.B: describe customs and traditions of various racial, ethnic, and religious groups in the United States;
  - 113.16.b.24: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including electronic technology. The student is expected to:
    - 113.16.b.24.B: analyze information by sequencing, categorizing, identifying cause-and-effect relationships, comparing, contrasting, finding the main idea, summarizing, making generalizations and predictions, and drawing inferences and conclusions;
  - 113.16.b.25: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
    - 113.16.b.25.C: express ideas orally based on research and experiences;
    - 113.16.b.25.E: use standard grammar, spelling, sentence structure, and punctuation.

## **THE FARMER GROWS A RAINBOW: HIGH FIVE BURGER**

- English Language Arts
  - 3<sup>rd</sup> Grade:
    - 110.5.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:
      - 110.5.b.1.C: speak coherently about the topic under discussion, employing eye contact, speaking rate, volume, enunciation, and the conventions of language to communicate ideas effectively;
      - 110.5.b.1.D: work collaboratively with others by following agreed-upon rules, norms, and protocols;
    - 110.5.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:
      - 110.5.b.6.E: make connections to personal experiences, ideas in other texts, and society;
      - 110.5.b.6.G: evaluate details read to determine key ideas;



- 110.5.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:
  - 110.5.b.11.D: edit drafts using standard English conventions, including:
    - 110.5.b.11.D.i: complete simple and compound sentences with subject-verb agreement;
    - 110.5.b.11.D.ii: past, present, and future verb tense;
    - 110.5.b.11.D.iii: singular, plural, common, and proper nouns;
    - 110.5.b.11.D.iv: adjectives, including their comparative and superlative forms;
    - 110.5.b.11.D.v: adverbs that convey time and adverbs that convey manner;
    - 110.5.b.11.D.vi: prepositions and prepositional phrases;
    - 110.5.b.11.D.vii: pronouns, including subjective, objective, and possessive cases;
    - 110.5.b.11.D.viii: coordinating conjunctions to form compound subjects, predicates, and sentences;
    - 110.5.b.11.D.ix: capitalization of official titles of people, holidays, and geographical names and places;
    - 110.5.b.11.D.x: punctuation marks, including apostrophes in contractions and possessives and commas in compound sentences and items in a series; and
    - 110.5.b.11.D.xi: correct spelling of words with grade-appropriate orthographic patterns and rules and high-frequency words;
- 110.5.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:
  - 110.5.b.12.B: compose informational texts, including brief compositions that convey information about a topic, using a clear central idea and genre characteristics and craft;
- 110.5.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:
  - 110.5.b.13.C: identify and gather relevant information from a variety of sources;



- 110.5.b.13.E: demonstrate understanding of information gathered;
- 110.5.b.13.H: use an appropriate mode of delivery, whether written, oral, or multimodal, to present results.
- 4<sup>th</sup> Grade:
  - 110.6.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:
    - 110.6.b.1.D: work collaboratively with others to develop a plan of shared responsibilities.
  - 110.6.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:
    - 110.6.b.6.E: make connections to personal experiences, ideas in other texts, and society;
    - 110.6.b.6.G: evaluate details read to determine key ideas;
  - 110.6.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:
    - 110.6.b.11.D: edit drafts using standard English conventions, including:
      - 110.6.b.11.D.i: complete simple and compound sentences with subject-verb agreement and avoidance of splices, run-ons, and fragments;
      - 110.6.b.11.D.ii: past tense of irregular verbs;
      - 110.6.b.11.D.iii: singular, plural, common, and proper nouns;
      - 110.6.b.11.D.iv: adjectives, including their comparative and superlative forms;
      - 110.6.b.11.D.v: adverbs that convey frequency and adverbs that convey degree;
      - 110.6.b.11.D.vi: prepositions and prepositional phrases;
      - 110.6.b.11.D.vii: pronouns, including reflexive;
      - 110.b.b.11.D.viii: coordinating conjunctions to form compound subjects, predicates, and sentences;



- 110.6.b.11.D.ix: capitalization of historical periods, events, and documents; titles of books; stories and essays; and languages, races, and nationalities;
  - 110.6.b.11.D.x: punctuation marks, including apostrophes in possessives, commas in compound sentences, and quotation marks in dialogue; and
  - 110.6.b.11.D.xi: correct spelling of words with grade-appropriate orthographic patterns and rules and high-frequency words;
- 110.6.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:
  - 110.6.b.12.B: compose informational texts, including brief compositions that convey information about a topic, using a clear central idea and genre characteristics and craft;
- 110.6.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:
  - 110.6.b.13.C: identify and gather relevant information from a variety of sources;
  - 110.6.b.13.E: identify primary and secondary sources;
  - 110.6.b.13.H: use an appropriate mode of delivery, whether written, oral, or multimodal, to present results.
- 5<sup>th</sup> Grade:
  - 110.7.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:
    - 110.7.b.1.C: give an organized presentation employing eye contact, speaking rate, volume, enunciation, natural gestures, and conventions of language to communicate ideas effectively;
    - 110.7.b.1.D: work collaboratively with others to develop a plan of shared responsibilities.
  - 110.7.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:



- 110.7.b.6.E: make connections to personal experiences, ideas in other texts, and society;
- 110.7.b.6.G: evaluate details read to determine key ideas;
- 110.7.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:
  - 110.7.b.11.D: edit drafts using standard English conventions, including:
    - 110.7.b.11.D.i: complete simple and compound sentences with subject-verb agreement and avoidance of splices, run-ons, and fragments;
    - 110.7.b.11.D.ii: past tense of irregular verbs;
    - 110.7.b.11.D.iii: collective nouns;
    - 110.7.b.11.D.iv: adjectives, including their comparative and superlative forms;
    - 110.7.b.11.D.v: conjunctive adverbs;
    - 110.7.b.11.D.vi: prepositions and prepositional phrases and their influence on subject-verb agreement;
    - 110.7.b.11.D.vii: pronouns, including indefinite;
    - 110.7.b.11.D.viii: subordinating conjunctions to form complex sentences;
    - 110.7.b.11.D.ix: capitalization of abbreviations, initials, acronyms, and organizations;
    - 110.7.b.11.D.x: italics and underlining for titles and emphasis and punctuation marks, including quotation marks in dialogue and commas in compound and complex sentences; and
    - 110.7.b.11.D.xi: correct spelling of words with grade-appropriate orthographic patterns and rules and high-frequency words;
- 110.7.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:
  - 110.7.b.12.B: compose informational texts, including brief compositions that convey information about a topic, using a clear central idea and genre characteristics and craft;
- 110.7.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:

- 110.7.b.13.C: identify and gather relevant information from a variety of sources;
- 110.7.b.13.E: demonstrate understanding of information gathered;
- 110.7.b.13.H: use an appropriate mode of delivery, whether written, oral, or multimodal, to present results.

- Social Studies

- 3<sup>rd</sup> Grade:

- 113.14.b.17: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including electronic technology. The student is expected to:
      - 113.14.b.17.B: sequence and categorize information;
    - 113.14.b.18: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
      - 113.14.b.18.A: express ideas orally based on knowledge and experiences;
      - 113.14.b.18.C: use standard grammar, spelling, sentence structure, and punctuation.

- 4<sup>th</sup> Grade:

- 113.15.b.21: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including electronic technology. The student is expected to:
      - 113.15.b.21.B: analyze information by sequencing, categorizing, identifying cause-and-effect relationships, comparing, contrasting, finding the main idea, summarizing, making generalizations and predictions, and drawing inferences and conclusions;
    - 113.15.b.22: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
      - 113.15.b.22.C: express ideas orally based on research and experiences;
      - 113.15.b.22.E: use standard grammar, spelling, sentence structure, and punctuation.

- 5<sup>th</sup> Grade:

- 113.16.b.24: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including electronic technology. The student is expected to:
      - 113.16.b.24.B: analyze information by sequencing, categorizing, identifying cause-and-effect relationships, comparing, contrasting,





finding the main idea, summarizing, making generalizations and predictions, and drawing inferences and conclusions;

- 113.16.b.25: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
  - 113.16.b.25.C: express ideas orally based on research and experiences;
  - 113.16.b.25.E: use standard grammar, spelling, sentence structure, and punctuation.

### **THE FARMER GROWS A RAINBOW: THREE REASONS**

- English Language Arts
  - 3<sup>rd</sup> Grade:
    - 110.5.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:
      - 110.5.b.1.C: speak coherently about the topic under discussion, employing eye contact, speaking rate, volume, enunciation, and the conventions of language to communicate ideas effectively;
    - 110.5.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:
      - 110.5.b.11.D: edit drafts using standard English conventions, including:
        - 110.5.b.11.D.i: complete simple and compound sentences with subject-verb agreement;
        - 110.5.b.11.D.ii: past, present, and future verb tense;
        - 110.5.b.11.D.iii: singular, plural, common, and proper nouns;
        - 110.5.b.11.D.iv: adjectives, including their comparative and superlative forms;
        - 110.5.b.11.D.v: adverbs that convey time and adverbs that convey manner;
        - 110.5.b.11.D.vi: prepositions and prepositional phrases;
        - 110.5.b.11.D.vii: pronouns, including subjective, objective, and possessive cases;
        - 110.5.b.11.D.viii: coordinating conjunctions to form compound subjects, predicates, and sentences;



- 110.5.b.11.D.ix: capitalization of official titles of people, holidays, and geographical names and places;
  - 110.5.b.11.D.x: punctuation marks, including apostrophes in contractions and possessives and commas in compound sentences and items in a series; and
  - 110.5.b.11.D.xi: correct spelling of words with grade-appropriate orthographic patterns and rules and high-frequency words;
- 110.5.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:
  - 110.5.b.12.B: compose informational texts, including brief compositions that convey information about a topic, using a clear central idea and genre characteristics and craft;
- 110.5.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:
  - 110.5.b.13.C: identify and gather relevant information from a variety of sources;
  - 110.5.b.13.E: demonstrate understanding of information gathered;
  - 110.5.b.13.H: use an appropriate mode of delivery, whether written, oral, or multimodal, to present results.
- 4<sup>th</sup> Grade:
  - 110.6.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:
    - 110.6.b.11.D: edit drafts using standard English conventions, including:
      - 110.6.b.11.D.i: complete simple and compound sentences with subject-verb agreement and avoidance of splices, run-ons, and fragments;
      - 110.6.b.11.D.ii: past tense of irregular verbs;
      - 110.6.b.11.D.iii: singular, plural, common, and proper nouns;
      - 110.6.b.11.D.iv: adjectives, including their comparative and superlative forms;



- 110.6.b.11.D.v: adverbs that convey frequency and adverbs that convey degree;
  - 110.6.b.11.D.vi: prepositions and prepositional phrases;
  - 110.6.b.11.D.vii: pronouns, including reflexive;
  - 110.b.b.11.D.viii: coordinating conjunctions to form compound subjects, predicates, and sentences;
  - 110.6.b.11.D.ix: capitalization of historical periods, events, and documents; titles of books; stories and essays; and languages, races, and nationalities;
  - 110.6.b.11.D.x: punctuation marks, including apostrophes in possessives, commas in compound sentences, and quotation marks in dialogue; and
  - 110.6.b.11.D.xi: correct spelling of words with grade-appropriate orthographic patterns and rules and high-frequency words;
- 110.6.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:
  - 110.6.b.12.B: compose informational texts, including brief compositions that convey information about a topic, using a clear central idea and genre characteristics and craft;
- 110.6.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:
  - 110.6.b.13.C: identify and gather relevant information from a variety of sources;
  - 110.6.b.13.E: identify primary and secondary sources;
  - 110.6.b.13.H: use an appropriate mode of delivery, whether written, oral, or multimodal, to present results.
- 5<sup>th</sup> Grade:
  - 110.7.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:
    - 110.7.b.11.D: edit drafts using standard English conventions, including:



- 110.7.b.11.D.i: complete simple and compound sentences with subject-verb agreement and avoidance of splices, run-ons, and fragments;
    - 110.7.b.11.D.ii: past tense of irregular verbs;
    - 110.7.b.11.D.iii: collective nouns;
    - 110.7.b.11.D.iv: adjectives, including their comparative and superlative forms;
    - 110.7.b.11.D.v: conjunctive adverbs;
    - 110.7.b.11.D.vi: prepositions and prepositional phrases and their influence on subject-verb agreement;
    - 110.7.b.11.D.vii: pronouns, including indefinite;
    - 110.7.b.11.D.viii: subordinating conjunctions to form complex sentences;
    - 110.7.b.11.D.ix: capitalization of abbreviations, initials, acronyms, and organizations;
    - 110.7.b.11.D.x: italics and underlining for titles and emphasis and punctuation marks, including quotation marks in dialogue and commas in compound and complex sentences; and
    - 110.7.b.11.D.xi: correct spelling of words with grade-appropriate orthographic patterns and rules and high-frequency words;
  - 110.7.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:
    - 110.7.b.12.B: compose informational texts, including brief compositions that convey information about a topic, using a clear central idea and genre characteristics and craft;
  - 110.7.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:
    - 110.7.b.13.C: identify and gather relevant information from a variety of sources;
    - 110.7.b.13.E: demonstrate understanding of information gathered;
    - 110.7.b.13.H: use an appropriate mode of delivery, whether written, oral, or multimodal, to present results.
- Social Studies



- 3<sup>rd</sup> Grade:
  - 113.14.b.17: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including electronic technology. The student is expected to:
    - 113.14.b.17.B: sequence and categorize information;
  - 113.14.b.18: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
    - 113.14.b.18.A: express ideas orally based on knowledge and experiences;
    - 113.14.b.18.C: use standard grammar, spelling, sentence structure, and punctuation.
- 4<sup>th</sup> Grade:
  - 113.15.b.21: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including electronic technology. The student is expected to:
    - 113.15.b.21.B: analyze information by sequencing, categorizing, identifying cause-and-effect relationships, comparing, contrasting, finding the main idea, summarizing, making generalizations and predictions, and drawing inferences and conclusions;
  - 113.15.b.22: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
    - 113.15.b.22.C: express ideas orally based on research and experiences;
    - 113.15.b.22.E: use standard grammar, spelling, sentence structure, and punctuation.
- 5<sup>th</sup> Grade:
  - 113.16.b.24: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including electronic technology. The student is expected to:
    - 113.16.b.24.B: analyze information by sequencing, categorizing, identifying cause-and-effect relationships, comparing, contrasting, finding the main idea, summarizing, making generalizations and predictions, and drawing inferences and conclusions;
  - 113.16.b.25: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:



- 113.16.b.25.C: express ideas orally based on research and experiences;
- 113.16.b.25.E: use standard grammar, spelling, sentence structure, and punctuation.

## **THE ROTTEN TRUTH**

- English Language Arts
  - 3<sup>rd</sup> Grade:
    - 110.5.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:
      - 110.5.b.1.C: speak coherently about the topic under discussion, employing eye contact, speaking rate, volume, enunciation, and the conventions of language to communicate ideas effectively;
      - 110.5.b.1.D: work collaboratively with others by following agreed-upon rules, norms, and protocols;
    - 110.5.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:
      - 110.5.b.6.G: evaluate details read to determine key ideas;
  - 4<sup>th</sup> Grade:
    - 110.6.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:
      - 110.6.b.1.D: work collaboratively with others to develop a plan of shared responsibilities.
    - 110.6.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:
      - 110.6.b.6.G: evaluate details read to determine key ideas;
  - 5<sup>th</sup> Grade:
    - 110.7.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:



- 110.7.b.1.D: work collaboratively with others to develop a plan of shared responsibilities.
  - 110.7.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:
    - 110.7.b.6.G: evaluate details read to determine key ideas;
- Science
  - 3<sup>rd</sup> Grade:
    - 112.14.b.2: Scientific investigation and reasoning. The student uses scientific practices during laboratory and outdoor investigations. The student is expected to:
      - 112.14.b.2.A: plan and implement descriptive investigations, including asking and answering questions, making inferences, and selecting and using equipment or technology needed, to solve a specific problem in the natural world;
      - 112.14.b.2.B: collect and record data by observing and measuring using the metric system and recognize differences between observed and measured data;
      - 112.14.b.2.D: analyze and interpret patterns in data to construct reasonable explanations based on evidence from investigations;
    - 112.14.b.7: Earth and space. The student knows that Earth consists of natural resources and its surface is constantly changing. The student is expected to:
      - 112.14.b.7.A: explore and record how soils are formed by weathering of rock and the decomposition of plant and animal remains;
  - 4<sup>th</sup> Grade:
    - 112.15.b.2: Scientific investigation and reasoning. The student uses scientific practices during laboratory and outdoor investigations. The student is expected to:
      - 112.15.b.2.A: plan and implement descriptive investigations, including asking well defined questions, making inferences, and selecting and using appropriate equipment or technology to answer his/her questions;
      - 112.15.b.2.B: collect and record data by observing and measuring, using the metric system, and using descriptive words and numerals such as labeled drawings, writing, and concept maps;



- 112.15.b.2.D: analyze data and interpret patterns to construct reasonable explanations from data that can be observed and measured;
- 5<sup>th</sup> Grade:
  - 112.16.b.2: Scientific investigation and reasoning. The student uses scientific practices during laboratory and outdoor investigations. The student is expected to:
    - 112.16.b.2.B: ask well defined questions, formulate testable hypotheses, and select and use appropriate equipment and technology;
    - 112.16.b.2.C: collect and record information using detailed observations and accurate measuring;
    - 112.16.b.2.D: analyze and interpret information to construct reasonable explanations from direct (observable) and indirect (inferred) evidence;
- Social Studies
  - 3<sup>rd</sup> Grade:
    - 113.14.b.18: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
      - 113.14.b.18.A: express ideas orally based on knowledge and experiences;
  - 4<sup>th</sup> Grade:
    - 113.15.b.22: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
      - 113.15.b.22.C: express ideas orally based on research and experiences;
  - 5<sup>th</sup> Grade:
    - 113.6.b.25: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
      - 113.6.b.25.C: express ideas orally based on research and experiences;

## **THINK IN PICTURES: LIKE DR. GRANDIN**

- English Language Arts
  - 3<sup>rd</sup> Grade:
    - 110.5.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:





- 110.5.b.1.C: speak coherently about the topic under discussion, employing eye contact, speaking rate, volume, enunciation, and the conventions of language to communicate ideas effectively;
    - 110.5.b.1.D: work collaboratively with others by following agreed-upon rules, norms, and protocols;
  - 110.5.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.
  - 110.5.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:
    - 110.5.b.6.G: evaluate details read to determine key ideas;
    - 110.5.b.6.H: synthesize information to create new understanding;
    - 110.5.b.6.I: monitor comprehension and make adjustments such as re-reading, using background knowledge, asking questions, and annotating when understanding breaks down.
  - 110.5.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:
    - 110.5.b.7.E: interact with sources in meaningful ways such as notetaking, annotating, freewriting, or illustrating;
    - 110.5.b.7.F: respond using newly acquired vocabulary as appropriate;
- 4<sup>th</sup> Grade:
- 110.6.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:
    - 110.6.b.1.D: work collaboratively with others to develop a plan of shared responsibilities.
  - 110.6.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.



- 110.6.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:
  - 110.6.b.6.G: evaluate details read to determine key ideas;
  - 110.6.b.6.H: synthesize information to create new understanding;
  - 110.6.b.6.I: monitor comprehension and make adjustments such as re-reading, using background knowledge, asking questions, and annotating when understanding breaks down.
- 110.6.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:
  - 110.6.b.7.E: interact with sources in meaningful ways such as notetaking, annotating, freewriting, or illustrating;
  - 110.6.b.7.F: respond using newly acquired vocabulary as appropriate;
- 5<sup>th</sup> Grade:
  - 110.7.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:
    - 110.7.b.1.C: give an organized presentation employing eye contact, speaking rate, volume, enunciation, natural gestures, and conventions of language to communicate ideas effectively;
    - 110.7.b.1.D: work collaboratively with others to develop a plan of shared responsibilities.
  - 110.7.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.
  - 110.7.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:
    - 110.7.b.6.G: evaluate details read to determine key ideas;
    - 110.7.b.6.H: synthesize information to create new understanding;



- 110.7.b.6.I: monitor comprehension and make adjustments such as re-reading, using background knowledge, asking questions, and annotating when understanding breaks down.
  - 110.7.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:
    - 110.7.b.7.E: interact with sources in meaningful ways such as notetaking, annotating, freewriting, or illustrating;
    - 110.7.b.7.F: respond using newly acquired vocabulary as appropriate;
- Social Studies
  - 3<sup>rd</sup> Grade:
    - 113.14.b.3: History. The student understands the concepts of time and chronology. The student is expected to:
      - 113.14.b.3.B: create and interpret timelines;
    - 113.14.b.16: Science, technology, and society. The student understands how individuals have created or invented new technology and affected life in various communities, past and present. The student is expected to:
      - 113.14.b.16.A: identify scientists and inventors, including Jonas Salk, Maria Mitchell, and others who have discovered scientific breakthroughs or created or invented new technology such as Cyrus McCormick, Bill Gates, and Louis Pasteur;
    - 113.14.b.17: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including electronic technology. The student is expected to:
      - 113.14.b.17.B: sequence and categorize information;
      - 113.14.b.17.E: interpret and create visuals, including graphs, charts, tables, timelines, illustrations, and maps;
    - 113.14.b.18: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
      - 113.14.b.18.A: express ideas orally based on knowledge and experiences;
    - 113.14.b.19: Social studies skills. The student uses problem-solving and decision-making skills, working independently and with others, in a variety of settings. The student is expected to:
      - 113.14.b.19.A: use a problem-solving process to identify a problem, gather information, list and consider options, consider advantages and disadvantages, choose and implement a solution, and evaluate the effectiveness of the solution;



- 4<sup>th</sup> Grade:
  - 113.15.b.21: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including electronic technology. The student is expected to:
    - 113.15.b.21.B: analyze information by sequencing, categorizing, identifying cause-and-effect relationships, comparing, contrasting, finding the main idea, summarizing, making generalizations and predictions, and drawing inferences and conclusions;
    - 113.15.b.21.C: organize and interpret information in outlines, reports, databases, and visuals, including graphs, charts, timelines, and maps;
  - 113.15.b.22: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
    - 113.15.b.22.C: express ideas orally based on research and experiences;
  - 113.15.b.23: Social studies skills. The student uses problem-solving and decision-making skills, working independently and with others, in a variety of settings. The student is expected to:
    - 113.15.b.23.A: use a problem-solving process to identify a problem, gather information, list and consider options, consider advantages and disadvantages, choose and implement a solution, and evaluate the effectiveness of the solution;
- 5<sup>th</sup> Grade:
  - 113.16.b.23: Science, technology, and society. The student understands the impact of science and technology on society in the United States. The student is expected to:
    - 113.16.b.23.A: identify the accomplishments of notable individuals in the fields of science and technology, including Benjamin Franklin, Eli Whitney, John Deere, Thomas Edison, Alexander Graham Bell, George Washington Carver, the Wright Brothers, and Neil Armstrong;
  - 113.16.b.24: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including electronic technology. The student is expected to:
    - 113.16.b.24.B: analyze information by sequencing, categorizing, identifying cause-and-effect relationships, comparing, contrasting, finding the main idea, summarizing, making generalizations and predictions, and drawing inferences and conclusions;



- 113.16.b.24.C: organize and interpret information in outlines, reports, databases, and visuals, including graphs, charts, timelines, and maps;
- 113.16.b.25: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
  - 113.16.b.25.C: express ideas orally based on research and experiences;
- 113.16.b.26: Social studies skills. The student uses problem-solving and decision-making skills, working independently and with others, in a variety of settings. The student is expected to:
  - 113.16.b.26.A: use a problem-solving process to identify a problem, gather information, list and consider options, consider advantages and disadvantages, choose and implement a solution, and evaluate the effectiveness of the solution;

## **WATER SUPPLY**

- Science
  - 3<sup>rd</sup> Grade:
    - 112.14.b.5: Matter and energy. The student knows that matter has measurable physical properties and those properties determine how matter is classified, changed, and used. The student is expected to:
      - 112.14.b.5.B: describe and classify samples of matter as solids, liquids, and gases and demonstrate that solids have a definite shape and that liquids and gases take the shape of their container;
      - 112.14.b.5.C: predict, observe, and record changes in the state of matter caused by heating or cooling such as ice becoming liquid water, condensation forming on the outside of a glass of ice water, or liquid water being heated to the point of becoming water vapor;
  - 4<sup>th</sup> Grade:
    - 112.15.b.5: Matter and energy. The student knows that matter has measurable physical properties and those properties determine how matter is classified, changed, and used. The student is expected to:
      - 112.15.b.5.A: measure, compare, and contrast physical properties of matter, including mass, volume, states (solid, liquid, gas), temperature, magnetism, and the ability to sink or float;



- 112.15.b.8: Earth and space. The student knows that there are recognizable patterns in the natural world and among the Sun, Earth, and Moon system. The student is expected to:
  - 112.15.b.8.B: describe and illustrate the continuous movement of water above and on the surface of Earth through the water cycle and explain the role of the Sun as a major source of energy in this process;
- 5<sup>th</sup> Grade:
  - 112.16.b.8: Earth and space. The student knows that there are recognizable patterns in the natural world and among the Sun, Earth, and Moon system. The student is expected to:
    - 112.16.b.8.B: explain how the Sun and the ocean interact in the water cycle;

## **WHEAT GERM DNA**

- English Language Arts
  - 3<sup>rd</sup> Grade:
    - 110.5.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:
      - 110.5.b.1.C: speak coherently about the topic under discussion, employing eye contact, speaking rate, volume, enunciation, and the conventions of language to communicate ideas effectively;
      - 110.5.b.1.D: work collaboratively with others by following agreed-upon rules, norms, and protocols;
    - 110.5.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.
    - 110.5.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:
      - 110.5.b.6.G: evaluate details read to determine key ideas;
      - 110.5.b.6.H: synthesize information to create new understanding;
      - 110.5.b.6.I: monitor comprehension and make adjustments such as re-reading, using background knowledge, asking questions, and annotating when understanding breaks down.



- 110.5.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:
  - 110.5.b.7.E: interact with sources in meaningful ways such as notetaking, annotating, freewriting, or illustrating;
- 4<sup>th</sup> Grade:
  - 110.6.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:
    - 110.6.b.1.D: work collaboratively with others to develop a plan of shared responsibilities.
  - 110.6.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.
  - 110.6.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:
    - 110.6.b.6.G: evaluate details read to determine key ideas;
    - 110.6.b.6.H: synthesize information to create new understanding;
    - 110.6.b.6.I: monitor comprehension and make adjustments such as re-reading, using background knowledge, asking questions, and annotating when understanding breaks down.
  - 110.6.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:
    - 110.6.b.7.E: interact with sources in meaningful ways such as notetaking, annotating, freewriting, or illustrating;
- 5<sup>th</sup> Grade:
  - 110.7.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:
    - 110.7.b.1.D: work collaboratively with others to develop a plan of shared responsibilities.



- 110.7.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.
  - 110.7.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:
    - 110.7.b.6.G: evaluate details read to determine key ideas;
    - 110.7.b.6.H: synthesize information to create new understanding;
    - 110.7.b.6.I: monitor comprehension and make adjustments such as re-reading, using background knowledge, asking questions, and annotating when understanding breaks down.
  - 110.7.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:
    - 110.7.b.7.E: interact with sources in meaningful ways such as notetaking, annotating, freewriting, or illustrating;
- Science
    - 3<sup>rd</sup> Grade:
      - 112.14.b.1: Scientific investigation and reasoning. The student conducts classroom and outdoor investigations following home and school safety procedures and environmentally appropriate practices. The student is expected to:
        - 112.14.b.1.A: demonstrate safe practices as described in Texas Education Agency-approved safety standards during classroom and outdoor investigations using safety equipment as appropriate, including safety goggles or chemical splash goggles, as appropriate, and gloves;
      - 112.14.b.4: Scientific investigation and reasoning. The student knows how to use a variety of tools and methods to conduct science inquiry. The student is expected to:
        - 112.14.b.4.A: collect, record, and analyze information using tools, including cameras, computers, hand lenses, metric rulers, Celsius thermometers, wind vanes, rain gauges, pan balances, graduated cylinders, beakers, spring scales, hot plates, meter sticks, magnets, collecting nets, notebooks, and Sun, Earth, and Moon system models; timing devices; and materials to support





observation of habitats of organisms such as terrariums and aquariums.

○ 4<sup>th</sup> Grade:

- 112.15.b.1: Scientific investigation and reasoning. The student conducts classroom and outdoor investigations, following home and school safety procedures and environmentally appropriate and ethical practices. The student is expected to:
  - 112.15.b.1.A: demonstrate safe practices and the use of safety equipment as described in Texas Education Agency-approved safety standards during classroom and outdoor investigations using safety equipment, including safety goggles or chemical splash goggles, as appropriate, and gloves, as appropriate
- 112.15.b.4: Scientific investigation and reasoning. The student knows how to use a variety of tools, materials, equipment, and models to conduct science inquiry. The student is expected to:
  - 112.15.b.4.A: collect, record, and analyze information using tools, including calculators, microscopes, cameras, computers, hand lenses, metric rulers, Celsius thermometers, mirrors, spring scales, balances, graduated cylinders, beakers, hot plates, meter sticks, magnets, collecting nets, and notebooks; timing devices; and materials to support observation of habitats of organisms such as terrariums and aquariums.

○ 5<sup>th</sup> Grade:

- 112.16.b.1: Scientific investigation and reasoning. The student conducts classroom and outdoor investigations following home and school safety procedures and environmentally appropriate and ethical practices. The student is expected to:
  - 112.16.b.1.A: demonstrate safe practices and the use of safety equipment as outlined in Texas Education Agency-approved safety standards during classroom and outdoor investigations using safety equipment, including safety goggles or chemical splash goggles, as appropriate, and gloves, as appropriate;
- 112.16.b.4: Scientific investigation and reasoning. The student knows how to use a variety of tools and methods to conduct science inquiry. The student is expected to:
  - 112.16.b.4.A: collect, record, and analyze information using tools, including calculators, microscopes, cameras, computers, hand lenses, metric rulers, Celsius thermometers, prisms, mirrors, balances, spring scales, graduated cylinders, beakers, hot plates, meter sticks, magnets, collecting nets, and notebooks; timing



devices; and materials to support observations of habitats or organisms such as terrariums and aquariums.

- Social Studies

- 3<sup>rd</sup> Grade:

- 113.14.b.16: Science, technology, and society. The student understands how individuals have created or invented new technology and affected life in various communities, past and present. The student is expected to:
      - 113.14.b.16.A: identify scientists and inventors, including Jonas Salk, Maria Mitchell, and others who have discovered scientific breakthroughs or created or invented new technology such as Cyrus McCormick, Bill Gates, and Louis Pasteur;
    - 113.14.b.17: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including electronic technology. The student is expected to:
      - 113.14.b.17.B: sequence and categorize information;
    - 113.14.b.18: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
      - 113.14.b.18.A: express ideas orally based on knowledge and experiences;
    - 113.14.b.19: Social studies skills. The student uses problem-solving and decision-making skills, working independently and with others, in a variety of settings. The student is expected to:
      - 113.14.b.19.A: use a problem-solving process to identify a problem, gather information, list and consider options, consider advantages and disadvantages, choose and implement a solution, and evaluate the effectiveness of the solution;

- 4<sup>th</sup> Grade:

- 113.15.b.21: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including electronic technology. The student is expected to:
      - 113.15.b.21.B: analyze information by sequencing, categorizing, identifying cause-and-effect relationships, comparing, contrasting, finding the main idea, summarizing, making generalizations and predictions, and drawing inferences and conclusions;
    - 113.15.b.22: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
      - 113.15.b.22.C: express ideas orally based on research and experiences;

- 5<sup>th</sup> Grade:



- 113.16.b.23: Science, technology, and society. The student understands the impact of science and technology on society in the United States. The student is expected to:
  - 113.16.b.23.A: identify the accomplishments of notable individuals in the fields of science and technology, including Benjamin Franklin, Eli Whitney, John Deere, Thomas Edison, Alexander Graham Bell, George Washington Carver, the Wright Brothers, and Neil Armstrong;
- 113.16.b.24: Social studies skills. The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including electronic technology. The student is expected to:
  - 113.16.b.24.B: analyze information by sequencing, categorizing, identifying cause-and-effect relationships, comparing, contrasting, finding the main idea, summarizing, making generalizations and predictions, and drawing inferences and conclusions;
- 113.16.b.25: Social studies skills. The student communicates in written, oral, and visual forms. The student is expected to:
  - 113.16.b.25.C: express ideas orally based on research and experiences;

## **WHIPPING BUTTER INTO SHAPE**

- English Language Arts
  - 3<sup>rd</sup> Grade:
    - 110.5.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:
      - 110.5.b.1.D: work collaboratively with others by following agreed-upon rules, norms, and protocols;
  - 4<sup>th</sup> Grade:
    - 110.6.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:
      - 110.6.b.1.D: work collaboratively with others to develop a plan of shared responsibilities.
  - 5<sup>th</sup> Grade:
    - 110.7.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:

- 110.7.b.1.D: work collaboratively with others to develop a plan of shared responsibilities.

- Math

- 3<sup>rd</sup> Grade:

- 111.5.b.7: Geometry and measurement. The student applies mathematical process standards to select appropriate units, strategies, and tools to solve problems involving customary and metric measurement. The student is expected to:
    - 111.5.b.7.E: determine liquid volume (capacity) or weight using appropriate units and tools.

- Science

- 3<sup>rd</sup> Grade:

- 112.14.b.2: Scientific investigation and reasoning. The student uses scientific practices during laboratory and outdoor investigations. The student is expected to:
    - 112.14.b.2.B: collect and record data by observing and measuring using the metric system and recognize differences between observed and measured data;
    - 112.14.b.2.C: construct maps, graphic organizers, simple tables, charts, and bar graphs using tools and current technology to organize, examine, and evaluate measured data;
    - 112.14.b.2.D: analyze and interpret patterns in data to construct reasonable explanations based on evidence from investigations;
  - 112.14.b.5: Matter and energy. The student knows that matter has measurable physical properties and those properties determine how matter is classified, changed, and used. The student is expected to:
    - 112.14.b.5.C: predict, observe, and record changes in the state of matter caused by heating or cooling such as ice becoming liquid water, condensation forming on the outside of a glass of ice water, or liquid water being heated to the point of becoming water vapor;

- 4<sup>th</sup> Grade:

- 112.15.b.2: Scientific investigation and reasoning. The student uses scientific practices during laboratory and outdoor investigations. The student is expected to:
    - 112.15.b.2.B: collect and record data by observing and measuring, using the metric system, and using descriptive words and numerals such as labeled drawings, writing, and concept maps;



- 112.15.b.2.C: construct simple tables, charts, bar graphs, and maps using tools and current technology to organize, examine, and evaluate data;
    - 112.15.b.2.D: analyze data and interpret patterns to construct reasonable explanations from data that can be observed and measured;
  - 112.15.b.5: Matter and energy. The student knows that matter has measurable physical properties and those properties determine how matter is classified, changed, and used. The student is expected to:
    - 112.15.b.5.A: measure, compare, and contrast physical properties of matter, including mass, volume, states (solid, liquid, gas), temperature, magnetism, and the ability to sink or float;
- 5<sup>th</sup> Grade:
- 112.16.b.2: Scientific investigation and reasoning. The student uses scientific practices during laboratory and outdoor investigations. The student is expected to:
    - 112.16.b.2.A: describe, plan, and implement simple experimental investigations testing one variable;
    - 112.16.b.2.B: ask well defined questions, formulate testable hypotheses, and select and use appropriate equipment and technology;
    - 112.16.b.2.C: collect and record information using detailed observations and accurate measuring;
    - 112.16.b.2.D: analyze and interpret information to construct reasonable explanations from direct (observable) and indirect (inferred) evidence;