TEXAS FARM BUREAU®

# Career Development

**Audience:** 6-8 grade

**Activity Length:** One class period

**TEKS:**

**6th Grade**

- English §110.22.b
  - 1.A, 1.B, 1.D, 5.H
- Science §112.26.b
  - 4.C, 5.G
- Social Studies §113.18.c
  - 5.A, 6.A, 6.B, 6.C, 19.C, 21.C, 22.B

**7th Grade**

- English §110.23.b
  - 5.H
- Science §112.27.b
  - 1.A, 4.C
- Social Studies §113.19.c
  - 20.C, 20.E

**8th Grade**

- English §110.24.b
  - 5.H
- Science §112.28.b
  - 1.A, 4.C
- Social Studies §113.20.c
  - 29.C, 29.E

**Electives**

- Career and College Exploration §127.2.d
  - 1.C, 1.D
- Principles of Agriculture, Food, and Natural Resources §130.2c
  - 1.A, 1.B, 4.B, 6.A, 6.B

**Objectives:**

- The student will explore education and career planning and opportunities, through career portals, and pathways.

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**Introduction:**
In Texas, one of every 7 working Texans is in an agriculture related job. The economic impact of the food and fiber sector totals more than $100 billion annually. Texas is number one in cattle, cotton, hay, sheep, goats and mohair production. Agricultural exports to foreign countries totaled $6.5 billion in 2012.

https://texasagriculture.gov/About/TexasAgStats.aspx

**Texas farmers and ranchers ensure Texas' economy remains strong. The job outlook in agriculture is bright!**

**Materials**

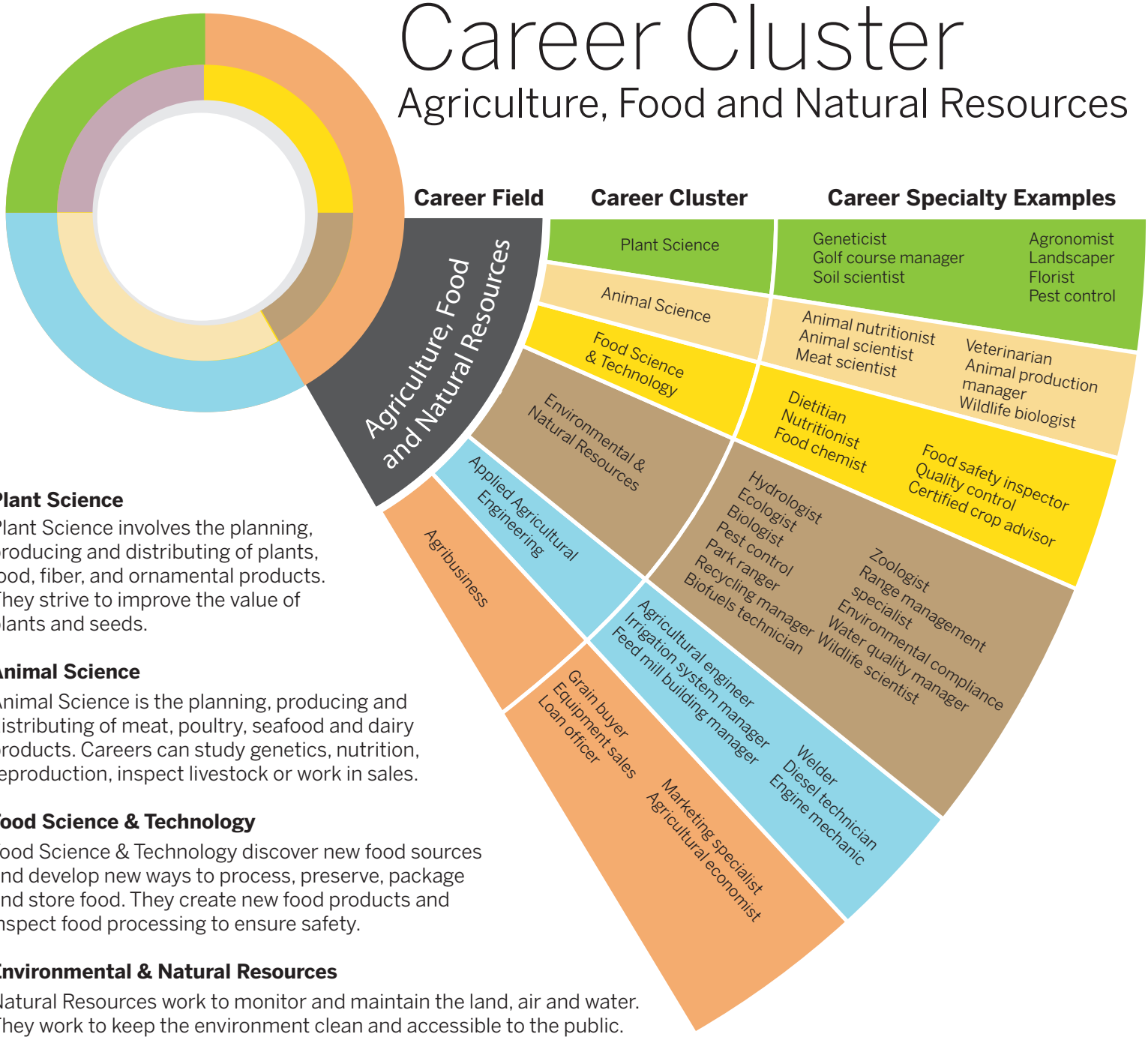
- USDA Living Science Food, Agriculture and Natural Resource Career Cards
- Texas Farm Bureau Career Cluster Graphic
- Texas Farm Bureau Videos
    - https://vimeo.com/channels/txfbaitc

**Procedure:**
Videos from the Texas Farm Bureau Vimeo channel are excellent introduction to agriculture careers.

1. Display USDA Living Science Career Cards. They can be downloaded at https://www.agriculture.purdue.edu/USDA/ Careers/. There are 50 two sided career cards.
2. Switch out career cards in the display to mirror concepts covered in class.
3. Laminate cards to be used as group work. Have students work in groups to research careers.
    a. What is the demand for this career?
    b. Is it declining or is it increasing?
    c. Will these jobs be in your area? D. What are the pros and cons of this career?
4. Use the Texas Farm Bureau Career Card to further discuss careers. Discuss opportunities with various forms of education. A. What opportunities are there for specialized training? B. How do they compare to careers that require a degree?

# Career Cluster

## Agriculture, Food and Natural Resources




### Plant Science

Plant Science involves the planning, producing and distributing of plants, food, fiber, and ornamental products. They strive to improve the value of plants and seeds.

### Animal Science

Animal Science is the planning, producing and distributing of meat, poultry, seafood and dairy products. Careers can study genetics, nutrition, reproduction, inspect livestock or work in sales.

### Food Science & Technology

Food Science & Technology discover new food sources and develop new ways to process, preserve, package and store food. They create new food products and inspect food processing to ensure safety.

### Environmental & Natural Resources

Natural Resources work to monitor and maintain the land, air and water. They work to keep the environment clean and accessible to the public. Environmental Resources work to preserve the environment by keeping it clean and accessible to the public.

### Applied Agricultural Engineeing

Applied Agricultural Engineering helps to design and maintain machinery used in agriculture by applying knowledge of engineering, hydraulics, electronics, power and structures. They develop ways to help conserve soil and water and improve agricultural products.

### Agribusiness

Agribusiness uses technology to coordinate all activities that contribute to production, processing, marketing, distributing, financing and development of all agriculture commodities. They help to increase efficiency and profitability by using spreadsheets, satellite systems and other innovations.

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## Plant Science

| High School or On-the-Job Training | Associate's Degree | Bachelor's Degree | Master's/Doctoral Degree |
|---|---|---|---|
| Nursery or greenhouse worker<br>Seed sales<br>Crop inspectors | Commercial horticulture<br>Crop production<br>Forestry<br>Landscape/nursery | Conservationist<br>Plant protection science<br>Arboretum manager<br>Sustainable designer | Agronomy consultant<br>Biochemist<br>Entomologist<br>Horticulture specialist |

## Animal Science

| High School or On-the-Job Training | Associate's Degree | Bachelor's Degree | Master's/Doctoral Degree |
|---|---|---|---|
| Animal caretakers<br>Feed sales<br>Animal trainer<br>Farmer/rancher<br>Artificial inseminator | Equine industry management<br>Livestock industry management<br>Swine management<br>Vet technician | Grazing livestock systems<br>Animal inspector<br>Feedlot manager<br>Food safety inspector | Geneticist<br>Animal nutritionist<br>Biochemist<br>Integrative biomedical sciences<br>Veterinary medicine |

## Food Science & Technology

| High School or On-the-Job Training | Associate's Degree | Bachelor's Degree | Master's/Doctoral Degree |
|---|---|---|---|
| Butcher<br>Meat processor<br>Inspector<br>Baker | Quality control<br>USDA grader | Hospitality, restaurant and tourism management<br>Mechanized systems management<br>Meat sales/buyer<br>Research and development<br>Auditor | Food science and technology nutrition<br>Meat scientist<br>Test kitchen manager |

## Environmental & Natural Resources

| High School or On-the-Job Training | Associate's Degree | Bachelor's Degree | Master's/Doctoral Degree |
|---|---|---|---|
| Emergency response technician<br>Wildland firefighter<br>Recycling manager | Soil and water conservationist<br>Laboratory science technician<br>Campground manager<br>Wetlands specialist | Environmental studies<br>Aquatic ecologist<br>Texas Parks and Wildlife<br>Soil scientist<br>Zoologist<br>Water quality manager<br>Park Ranger | Wildlife biologist<br>Regulatory entomologist<br>Natural resources scientist<br>Urban planner |

## Applied Agricultural Engineering

| High School or On-the-Job Training | Associate's Degree | Bachelor's Degree | Master's/Doctoral Degree |
|---|---|---|---|
| Ag service trainee<br>Ag equipment operator<br>Electrician apprenticeship<br>Plumbing apprenticeship<br>Welding apprenticeship | Farm mechanics<br>Irrigation technology<br>Mechanized agriculture practices | Mechanized marketing<br>Mechanized science<br>Processing operations<br>Electrical engineer | Agricultural and biological systems engineer<br>Mechanized systems management |

## Agribusiness

| High School or On-the-Job Training | Associate's Degree | Bachelor's Degree | Master's/Doctoral Degree |
|---|---|---|---|
| Ag business clerk<br>Ag warehouse worker<br>Farmer/rancher | Ag sales<br>Custom applicators<br>Farm and ranch business management | Commodity trader<br>Government agency employee<br>Loan officer | Attorney/lawyer<br>Political consultant<br>Ag economist |