

# Career Development

**Skills:** Middle and High School Career Development

**Objective:** The student will explore education and career planning and opportunities, through career portals, and pathways.

**Background:** 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!**

**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?

**Materials**

USDA Living Science  
Food, Agricultural and  
Natural Resources Career Cards

Texas Farm Bureau Career Cluster  
Graphic

Texas Farm Bureau Videos,  
[www.texasfarmbureau.org](http://www.texasfarmbureau.org), Vimeo  
<https://vimeo.com/channels/txfbaitc>

**TEKS**

§127.3 Exploring Careers  
Grades 7 and 8

Knowledge and Skills  
1B,C, D,E,F,G  
2A,B,C,D,E, 4F 5B&C, 8A&B

§127.4 Career Portals  
1A&B, 2A-E, 3A-C,4D,6A-C

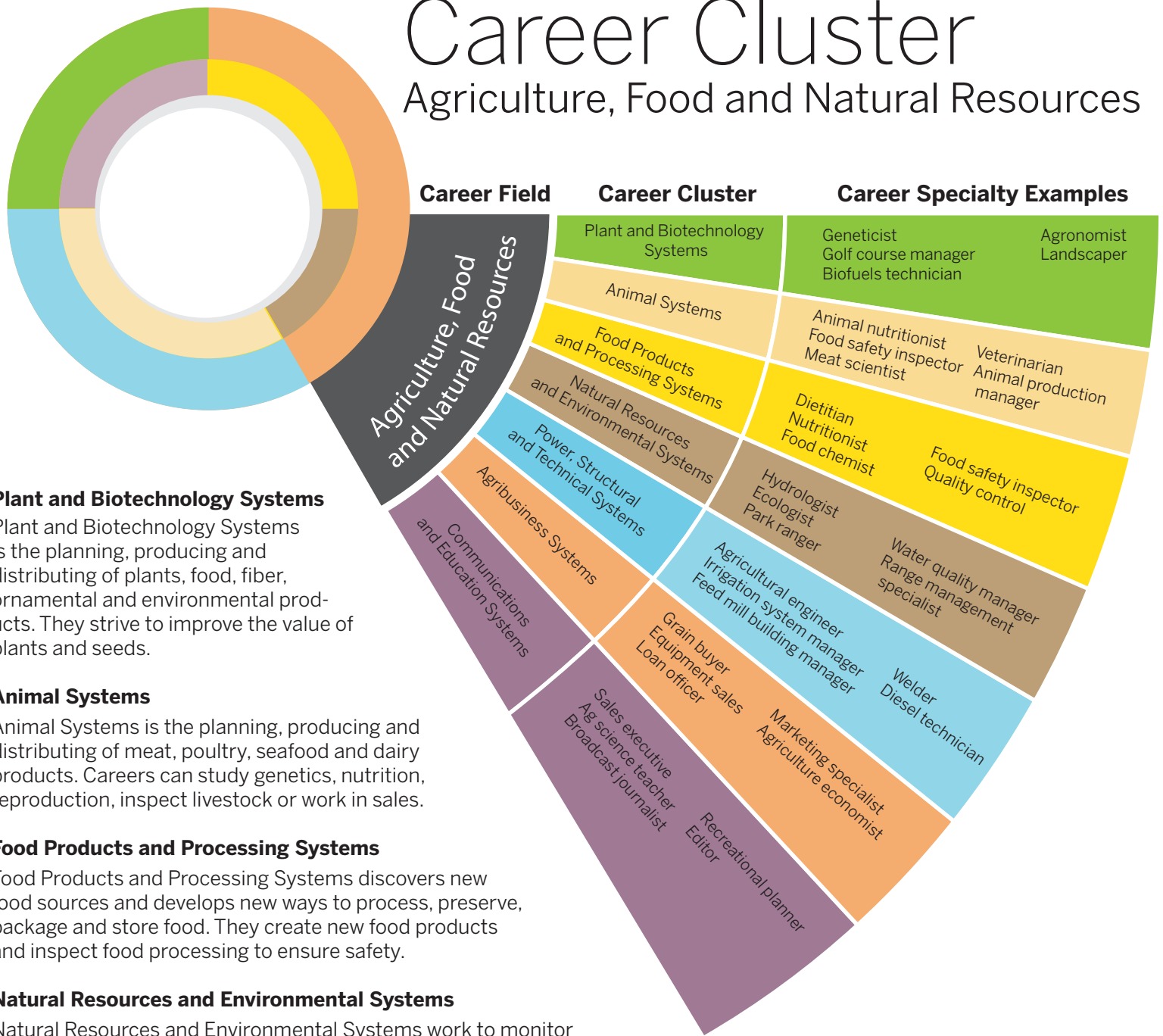
§127.13Career Preparation  
High School

1A,5E, 8A-C, 9A,B,D  
§127.14Career Preparation  
9A-F, 10A-D



# Career Cluster

## Agriculture, Food and Natural Resources



### Plant and Biotechnology Systems

Plant and Biotechnology Systems is the planning, producing and distributing of plants, food, fiber, ornamental and environmental products. They strive to improve the value of plants and seeds.

### Animal Systems

Animal Systems 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 Products and Processing Systems

Food Products and Processing Systems discovers new food sources and develops new ways to process, preserve, package and store food. They create new food products and inspect food processing to ensure safety.

### Natural Resources and Environmental Systems

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

### Power, Structural and Technical Systems

Power, Structural and Technical Systems 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 Systems

Agribusiness Systems 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.

### Communications and Education Systems

Communications and Education Systems creates the knowledge to communicate through speaking, web technology, writing and teaching, all focused on agriculture. They can become ag teachers, extension agents, camp directors, newspaper writers, sales representatives or work for commodity groups.



**TEXAS FARM BUREAU®**

## Plant and Biotechnology Systems

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

## Animal Systems

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

## Food Products and Processing Systems

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

## Natural Resources and Environmental Systems

High School or On-the-Job Training	Associate's Degree	Bachelor's Degree	Master's/Doctoral Degree
Taxidermist Emergency response technician Wildland firefighter	Soil and water conservationist EPA technician Laboratory science technician Campground manager	Environmental studies Conservation biology Aquatic ecologist Texas Parks and Wildlife Soil scientist	Wildlife biologist Regulatory entomologist Natural resources scientist

## Power, Structural and Technical Systems

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

## Agribusiness Systems

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

## Communications and Education Systems

High School or On-the-Job Training	Associate's Degree	Bachelor's Degree	Master's/Doctoral Degree
Photographer Web designer	Reporter Sales representative	Ag teacher Event planner Magazine designer Extension agent	Lawyer Public relations specialist Professor