Agriculture, Food, and Natural Resources Career Cluster

The Agriculture, Food, and Natural Resources (AFNR) career cluster focuses on the essential elements of life, food, water, land, and air. This career cluster includes occupations ranging from farmer, rancher, and veterinarian to geologist, land conservationist, and florist.

CFISD Program of Study: *Animal Science*

Successful completion of the Animal Science program of study will fulfill requirements of a Business and Industry endorsement.

The Animal Science program of study focuses on occupational and educational opportunities associated with the science, research, and business of animals and other living organisms. This program of study includes applying biology and life science to real-world life processes of animals and wildlife, either in laboratories or in the field, which could include a veterinary office, a farm or ranch, or any outdoor area harboring animal life. Students will research and analyze the growth and destruction of species and research or diagnose diseases and injuries of animals.

Recommended Course Sequence (credits)(A=advanced)

Students wanting an endorsement in this area must select three (3) or more courses totaling four (4) or more credits with at least one being advanced.

Grade 9	• Principles of Agriculture, Food, and Natural Resources (1)
Grade 10	• Small Animal Management (0.5) AND Equine Science (0.5) • OR Livestock Production (1)
Grade 11	• Veterinary Medical Applications (1) (A) • OR Livestock Production (1)
Grade 12	• Advanced Animal Science K (1-science) (A) • OR Practicum in Agriculture, Food, and Natural Resources (2) (A)

Aligned Industry-Based Certifications Offered in CFISD

(course) (CCMR=impacts "career ready" status as outlined by the TEA Accountability System for College, Career or Military Readiness)

- Certified Veterinary Assistant, Level I (Veterinary Medical Applications) (CCMR)
- Certified Veterinary Assistant, Level II (Practicum in AFNR)
- Elanco Fundamentals of Animal Science Certification (Livestock Production) (CCMR)
- Elanco Veterinary Medical Applications Certification (Veterinary Medical Applications) (CCMR)
- Equine Management and Evaluation Certification (Equine Science) (CCMR)
- Fear Free Veterinary Certification (Small Animal Management)
- Quality Counts Verification (Principles of AFNR)
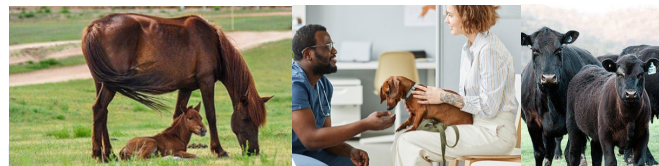- Texas Beef Quality Assurance (Livestock Production)

Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities	• Shadow an animal scientist in a biology lab to learn about applying science to understand animals and wildlife • Intern in a veterinary clinic, caring for animals and wildlife being treated in the clinic
Expanded Learning Opportunities	• Participate in an FFA career, leadership, and speaking contest like an agriscience fair

CFISD·CTE opportunity starts here

- Receive training on industry-standard material, software & equipment.
- Enhance your resume by earning recognized industry-based certifications.
- Get a jump-start by taking advantage of core curriculum dual credit, transferable to 2-yr and 4-yr degrees.

ALL AT A FRACTION OF THE COST!

Example Postsecondary Opportunities

Apprenticeships
- Reproduction Technician

Associate Degrees
- Biological and Physical Sciences
- Entomology

Bachelor's Degrees
- Animal Science
- Zoology/Animal Biology

Master's, Doctoral, and Professional Degrees
- Marine Sciences
- Biotechnology

Additional Stackable IBCs/License
- Veterinarian
- Licensed Veterinary Technician

Example Aligned Occupations

Data Source: Texas Wages, Texas Workforce Commission. rev 3/8/2024

Veterinary Assistants and Laboratory Animal Caretakers

Median Wage: $29,906
Annual Openings: 1,348
10-Year Growth: 24%

Veterinary Technologists and Technicians

Median Wage: $33,679
Annual Openings: 1,217
10-Year Growth: 24%

Veterinarian

Median Wage: $103,160
Annual Openings: 347
10-Year Growth: 26%

Animal Science