Texas CTE

Equine Science

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Introduction ES.B

1 **Career and technical education instruction provides content aligned with challenging academic standards and relevant technical knowledge and skills for students to further their education and succeed in current or emerging professions.** ES.B.1

2 **The Agriculture, Food, and Natural Resources Career Cluster focuses on the production, processing, marketing, distribution, financing, and development of agricultural commodities and resources, including food, fiber, wood products, natural resources, horticulture, and other plant and animal products/resources.** ES.B.2

3 **In Equine Science, students will acquire knowledge and skills related to equine animal systems and the equine industry. Equine Science may address topics related to horses, donkeys, and mules. To prepare for careers in the field of animal science, students must enhance academic knowledge and skills, acquire knowledge and skills related to animal systems, and develop knowledge and skills regarding career opportunities, entry requirements, and industry expectations. To prepare for success, students need opportunities to learn, reinforce, apply, and transfer their knowledge and skills in a variety of settings.** ES.B.3

4 **Students are encouraged to participate in extended learning experiences such as career and technical student organizations and other leadership or extracurricular organizations.** ES.B.4

5 **Statements that contain the word "including" reference content that must be mastered, while those containing the phrase "such as" are intended as possible illustrative examples.** ES.B.5

Knowledge and skills. ES.C

1. **identify career development and entrepreneurship opportunities in the field of equine science;** ES.C.1
   - a identify career development and entrepreneurship opportunities in the field of equine science; ES.C.1.A
   - b demonstrate competencies related to resources, information, interpersonal skills, and systems of operation in equine science; ES.C.1.B
   - c demonstrate knowledge of personal and occupational health and safety practices in the workplace; ES.C.1.C
   - d. identify employers' expectations, including appropriate work habits, ethical conduct, and legal responsibilities; ES.C.1.D
   - e demonstrate characteristics of good citizenship such as stewardship, advocacy, and community leadership; ES.C.1.E
   - f research career topics using technology such as the Internet. ES.C.1.F

2 **The student develops a supervised agriculture experience program. The student is expected to:** ES.C.2
   - a plan, propose, conduct, document, and evaluate a supervised agriculture experience program as an experiential learning activity; ES.C.2.A
   - b apply proper record-keeping skills as they relate to the supervised agriculture experience; ES.C.2.B
   - c participate in youth leadership opportunities to create a well-rounded experience program; ES.C.2.C
   - d produce and participate in a local program of activities using a strategic planning process. ES.C.2.D

3 **The student analyzes equine science as it relates to the selection of horses. The student is expected to:** ES.C.3
   - a recognize the importance of equine industries such as racing, rodeos, equestrian therapy, and the global food market; ES.C.3.A
   - b evaluate and select horses based on purpose. ES.C.3.B

4 **The student knows how to provide proper nutrition using accepted protocols and processes to maintain animal performance. The student is expected to:** ES.C.4
   - a determine nutritional requirements of horses; ES.C.4.A
   - b describe the anatomy and physiology of horses, including the skeletal, muscular, respiratory, reproductive, and circulatory systems; ES.C.4.B
   - c explain methods of maintaining horse health and soundness. ES.C.4.C

5 **The student analyzes equine science as it relates to the management of horses. The student is expected to:** ES.C.5

- a select equipment and facilities for horses; ES.C.5.A
- b demonstrate methods of handling horses safely; ES.C.5.B
- c identify the procedures for breeding horses per industry standards. ES.C.5.C

6 **The student identifies animal pests and diseases. The student is expected to:** ES.C.6

- a identify and describe the role of bacteria, fungi, viruses, genetics, and nutrition in disease; ES.C.6.A
- b identify methods of disease control, treatment, and prevention; ES.C.6.B
- c classify internal and external parasites, including treatment and prevention; ES.C.6.C
- d identify behavioral diseases such as cribbing, heaving, and wind sucking. ES.C.6.D

7 **The student compares and contrasts issues affecting the equine industry. The student is expected to:** ES.C.7

- a describe biotechnology issues related to the equine industry; ES.C.7.A
- b identify animal welfare policy pertaining to equine industries such as racing, rodeos, equestrian therapy, the global food market, and pharmaceutical research. ES.C.7.B