



Livestock Production (Proc 17)

PRE-TEST/POST-TEST TEKS BLUEPRINT

Pre-Test/Post-Test Development Overview

TEKS Addressed Selection Process

The Texas Essential Knowledge & Skills (TEKS) included in the course pre-test and post-test were selected for their direct relevance to the course content. This selection process was guided by the goal of assessing learners' understanding of specific topics and skills that are integral to the course. As a result, TEKS related to general employability skills or broader topics were often excluded. This focus ensures that the assessments accurately measure students' mastery of the subject matter, allowing educators to gain a clear insight into areas where students excel or may need additional support. By concentrating on content-specific TEKS, the tests provide a more precise evaluation of the students' knowledge and understanding of the core material.

Test Question Development Process

The questions created for the pre-test and post-test were designed using psychometric principles to ensure they are of high quality and fairness. This approach helps to accurately assess student understanding. These principles guide the development of questions to be reliable, valid, and free from bias, ensuring that they effectively measure the knowledge and skills the students are expected to acquire in the course.

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Knowledge & Skills Statement	Student Expectation	iCEV Lesson Title
(1) The student demonstrates professional standards/employability skills as required by business and industry. The student is expected to:	(A) identify career development and entrepreneurship opportunities in the field of animal systems	Animal Systems
(1) The student demonstrates professional standards/employability skills as required by business and industry. The student is expected to:	(B) apply competencies related to resources, information, interpersonal skills, and systems of operation in animal systems	The World of Agriculture
2) The student develops a supervised agriculture experience program. The student is expected to:	(A) plan, propose, conduct, document, and evaluate a supervised agriculture experience program as an experiential learning activity	Blue & Gold Experience: SAE Programs
2) The student develops a supervised agriculture experience program. The student is expected to:	(B) apply proper record-keeping skills as they relate to the supervised agriculture experience	Blue & Gold Experience: SAE Programs
2) The student develops a supervised agriculture experience program. The student is expected to:	(C) participate in youth leadership opportunities to create a well-rounded experience program	Blue & Gold Experience: Involvement
2) The student develops a supervised agriculture experience program. The student is expected to:	(D) produce and participate in a local program of activities using a strategic planning process	Blue & Gold Experience: Involvement
(3) The student demonstrates technical skills relating to the interrelated human, scientific, and technological dimensions of animal systems. The student is expected to:	(A) assess the importance of the United States impact on world commodity markets	Agricultural Markets: Commodities & Contracts Global Agriculture: Feeding the World
(3) The student demonstrates technical skills relating to the interrelated human, scientific, and technological dimensions of animal systems. The student is expected to:	(B) apply the principles of livestock breeding and nutrition in predicting the impact of current advances in genetics	Livestock Reproduction Biotechnology: Fetal Programming
(3) The student demonstrates technical skills relating to the interrelated human, scientific, and technological dimensions of animal systems. The student is expected to:	(C) examine the interrelationship of plants and animals such as forage identification, rotational grazing, and grass protein levels	Ecological Principles
(4) The student performs technical skills related to livestock production. The student is expected to:	(A) gather performance data	Livestock Breeding Systems
(4) The student performs technical skills related to livestock production. The student is expected to:	(B) describe common veterinary procedures and skills	Basic Livestock Surgical Procedures
(4) The student performs technical skills related to livestock production. The student is expected to:	(B) describe common veterinary procedures and skills	Injection Techniques
(4) The student performs technical skills related to livestock production. The student is expected to:	(C) practice proper animal restraint techniques	Basic Livestock Surgical Procedures Injection Techniques
(4) The student performs technical skills related to livestock production. The student is expected to:	(D) demonstrate identification techniques	Animal ID Systems
(4) The student performs technical skills related to livestock production. The student is expected to:	(E) demonstrate effective management strategies such as financial planning and managing government regulations	Agricultural Business: Financing, Saving & Investing
(5) The student explains anatomy and physiology related to nutrition, reproduction, health, and management of livestock species. The student is expected to:	(A) explain the skeletal, muscular, respiratory, reproductive, and circulatory systems of animals	Basic Animal Reproduction Circulatory & Respiratory Systems
(5) The student explains anatomy and physiology related to nutrition, reproduction, health, and management of livestock species. The student is expected to:	(A) explain the skeletal, muscular, respiratory, reproductive, and circulatory systems of animals	Nervous, Skeletal & Muscular Systems
(5) The student explains anatomy and physiology related to nutrition, reproduction, health, and management of livestock species. The student is expected to:	(B) evaluate vital signs and normal behavior	Common Diseases of Livestock Animals: Nutritional Diseases
(6) The student determines nutritional requirements of ruminant and non-ruminant animals, including poultry. The student is expected to:	(A) describe the digestive systems of ruminant and non ruminant animals	Digestive Systems of Livestock: A Basic Look
(6) The student determines nutritional requirements of ruminant and non-ruminant animals, including poultry. The student is expected to:	(B) identify sources of nutrients and classes of feed	Advanced Livestock Nutrition Basic Livestock Nutrition
(6) The student determines nutritional requirements of ruminant and non-ruminant animals, including poultry. The student is expected to:	(C) identify vitamins, minerals, and feed additives	Advanced Livestock Nutrition Basic Livestock Nutrition
(6) The student determines nutritional requirements of ruminant and non-ruminant animals, including poultry. The student is expected to:	(D) formulate rations	Advanced Livestock Nutrition

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(6) The student determines nutritional requirements of ruminant and non-ruminant animals, including poultry. The student is expected to:	(E) discuss feeding practices and feed quality issues	Advanced Livestock Nutrition
(7) The student explains animal genetics and reproduction. The student is expected to:	(A) describe the reproductive systems of various livestock	Basic Animal Reproduction Beef Cattle Management Practices Swine Management Practices Sheep Management Practices Goat Management Practices
(7) The student explains animal genetics and reproduction. The student is expected to:	(B) explain the use of genetics in animal agriculture such as Expected Progeny Differences (EPD's), phenotype and genotype	Livestock Breeding Systems Advanced Animal Genetics
(7) The student explains animal genetics and reproduction. The student is expected to:	(C) identify systems of animal breeding	Livestock Breeding Systems
(7) The student explains animal genetics and reproduction. The student is expected to:	(D) research current and emerging technologies in animal reproduction such as cloning, embryo transfer, invitrofertilization, and artificial insemination	Livestock Reproduction
(7) The student explains animal genetics and reproduction. The student is expected to:	(E) design and conduct experiments to support known principles of genetics	Advanced Animal Genetics
(8) The student identifies animal pests and diseases. The student is expected to:	(A) identify and describe the role of bacteria, fungi, viruses, genetics, and nutrition in disease	Common Diseases of Livestock Animals: Nutritional Diseases
(8) The student identifies animal pests and diseases. The student is expected to:	(B) identify methods of disease control, treatment, and prevention	Common Diseases of Livestock Animals: Nutritional Diseases
(8) The student identifies animal pests and diseases. The student is expected to:	(C) classify internal and external parasites including treatment and prevention	Common Diseases of Livestock Animals: Parasitic & Fungal Diseases
(9) The student knows the factors impacting commodity prices and costs. The student is expected to:	(A) evaluate the relationship between livestock commodity markets	Agricultural Markets: Commodities & Contracts
(9) The student knows the factors impacting commodity prices and costs. The student is expected to:	(B) formulate rations based on least-cost factors	Advanced Livestock Nutrition
(10) The student plans for dynamic changes in business operation. The student is expected to:	(A) design, conduct, and complete research to identify and solve livestock management problems	Basic Animal Management
(10) The student plans for dynamic changes in business operation. The student is expected to:	(B) use charts, tables, or graphs to prepare written summaries of data such as nutrition, digestion, and reproduction data obtained in a laboratory activity and an individual scientific research project	Basic Animal Reproduction