



EDUCATIONAL STANDARDS ALIGNMENT

**THE RAW TRUTH
ABOUT BEEF**



GRADES 9-12

TEKS STANDARDS ALIGNMENT

Texas Educational Knowledge and Skills - Texas Education Agency

Agriculture, Food, and Natural Resources - §130.A.

§130.2. Principles of Agriculture, Food, and Natural Resources (One Credit), Adopted 2015

- (4) The student explains the historical, current, and future significance of the agriculture, food, and natural resources industry. The student is expected to (E) describe how emerging technologies and globalization impacts agriculture, food, and natural resources.
- (12) The student develops technical knowledge and skills related to animal systems. The student is expected (D) explain animal selection, reproduction, breeding, and genetics.
- (13) The student describes the principles of food products and processing systems. The student is expected to: (A) evaluate food products and processing systems.
- (15) The student explains the relationship between agriculture, food, and natural resources and the environment. The student is expected to: (A) determine the effects of agriculture, food, and natural resources upon safety, health, and the environment (C) identify and design methods to maintain and improve safety, health, and environmental systems in agriculture, food, and natural resource.

Hospitality and Tourism - §130.I.

§130.253. Introduction to Culinary Arts (One Credit), Adopted 2015

- (3) The student uses verbal and nonverbal communication skills to create, express, and interpret information to establish a positive work environment. The student is expected to: (A) develop and deliver presentations; (E) demonstrate active listening skills to obtain and clarify information.
- (7) The student understands the importance of health, safety, and environmental management systems in organizations and their importance to organizational performance and regulatory compliance. The student is expected to: (E) research sources of food-borne illness and determine ways to prevent them.
- (15) The student evaluates and determines equipment, ingredients, and procedures in a professional food setting. The student is expected to: (C) identify the types of knives and proper usage in a commercial kitchen; (H) describe the methods of cooking, including dry heat, moist heat, and combination heat.
- §130.255. Advanced Culinary Arts (Two Credits), Adopted 2015.
- (6) The student understands roles within teams, work units, departments, organizations, and the larger environment of the food service industry. The student is expected to: (B) investigate quality-control standards and practices.
- (15) The student evaluates nutrition concepts as they affect health and wellness, marketing, and menu planning. The student is expected to: (A) analyze the role of carbohydrates, vitamins, minerals, proteins, and fats as they relate to food choices (G) differentiate between proteins and identify factors such as types, grades, purchasing, and storage.



TEKS STANDARDS [CONTINUED]

Human Services- §130.J.

§130.274. Lifetime Nutrition and Wellness (One-Half Credit), Adopted 2015.

- (2) The student understands the role of nutrients in the body. The student is expected to: (A) classify nutrients and their functions and food sources and compare the nutritive value of various foods; (B) assess the effects of nutritional intake on health, appearance, effective job performance, and personal life; (C) analyze and apply various dietary guidelines throughout the life cycle, including pregnancy, infancy, childhood, and late adulthood; and (D) compare personal food intake to recommended dietary guidelines.
- (4) The student demonstrates knowledge of nutritionally balanced diets. The student is expected to: (A) research the long-term effects of food choices; (B) outline strategies for prevention, treatment, and management of diet-related diseases such as diabetes, hypertension, childhood obesity, anorexia, and bulimia; (C) determine the effects of food allergies and intolerances on individual and family health; (D) plan diets based on life cycle, activity level, nutritional needs, portion control, and food budget; (E) develop examples of therapeutic diets; (F) analyze advertising claims and fad diets with the recommendations of the Recommended Dietary Allowances; (G) analyze current lifestyle habits that may increase health risks; (H) identify community programs that provide nutrition and wellness services; (I) examine the nutritional value of fast foods and convenience foods; (J) read and interpret food labels; (K) examine and explain nutritional serving sizes; (L) compare organic and green food choices; and (M) determine sustainable food choices and their impact on society.
- (5) The student understands safety and sanitation. The student is expected to: (A) demonstrate safe and sanitary practices in the use, care, and storage of food and equipment; (B) explain types and prevention of food-borne illnesses; and (C) practice appropriate dress and personal hygiene in food preparation.



NATIONAL AFNR STANDARDS

Crosswalked with Common Core and Next Generation Science Standards

AFNR Cluster Skills

- **CS.05. Describe career opportunities and means to achieve those opportunities in each of the Agriculture, Food & Natural Resources career pathways.**
 - CS.05.02. Examine and choose career opportunities that are matched to personal skills, talents, and career goals in an AFNR pathway of interest.
- **CS.06. Analyze the interaction among AFNR systems in the production, processing and management of food, fiber and fuel and the sustainable use of natural resources.**
 - CS.06.01. Examine and explain foundational cycles and systems of AFNR.
 - CS.06.02. Analyze and explain the connection and relationships between different AFNR systems on a national and global level.

Animal Science Pathway Standards

- **AS.02. CCTC Standard: Utilize best-practice protocols based upon animal behaviors for animal husbandry and welfare.**
 - AS.02.01. Performance indicator: Demonstrate management techniques that ensure animal welfare.
 - NGSS: HS-ETS1-2
 - AS.02.02. Performance indicator: Analyze procedures to ensure that animal products are safe for consumption) (e.g., use in food system, etc.).
 - NGSS: HS-ETS1-2
- **AS.03. CCTC Standard: Design and provide proper animal nutrition to achieve desired outcomes for performance, development, reproduction and/or economic production.**
 - AS.03.01. Performance indicator: Analyze the nutritional needs of animals.
 - AS.03.02. Performance indicator: Analyze feed rations and assess if they meet the nutritional needs of animals.
 - AS.03.03. Performance indicator: Utilize industry tools to make animal nutrition decisions.



NATIONAL AFNR STANDARDS [CONTINUED]

- **AS.04. CCTC Standard: Apply principles of animal reproduction to achieve desired outcomes for performance, development and/or economic production.**
 - AS.04.01. Performance indicator: Evaluate animals for breeding readiness and soundness.
 - AS.04.02. Performance indicator: Apply scientific principles to select and care for breeding animals.
 - NGSS HS-LS3-2 & HS-LS3-3
 - CCSS.MATH.CONTENT.HSS.MD.A.3
 - AS.04.03 Performance indicator: Apply scientific principles to breed animals.
- **AS.07. CCTC Standard: Apply principles of effective animal health care.**
 - AS.07.01. Performance indicator: Design programs to prevent animal diseases, parasites and other disorders and ensure animal welfare.
 - CCSS.MATH.CONTENT.HSN.Q.A.1
 - CCSS.MATH.CONTENT.HSN.Q.A.2
 - CCSS.MATH.CONTENT.HSN.Q.A.3
 - AS.07.02. Performance indicator: Analyze biosecurity measures utilized to protect the welfare of animals on a local, state, national, and global level.
- **AS.08. CCTC Standard: Analyze environmental factors associated with animal production.**
 - AS.08.01. Performance indicator: Design and implement methods to reduce the effects of animal production on the environment.
 - NGSS HS-LS2-6 & HS-LS2-7
 - AS.08.02. Performance indicator: Evaluate the effects of environmental conditions on animals and create plans to ensure favorable environments for animals.
 - NGSS HS.LS4-6



NATIONAL AFNR STANDARDS [CONTINUED]

Food Production and Processing Pathway Standards

- **FPP.01. CCTC Standard: Develop and implement procedures to ensure safety, sanitation and quality in food product and processing facilities.**
 - FPP.01.01. Performance indicator: Analyze and manage operational and safety procedures in food products and processing facilities.
 - FPP.01.02. Performance indicator: Apply food safety and sanitation procedures in the handling and processing of food products to ensure food quality.
 - FPP.01.03. Performance indicator: Apply food safety procedures when storing food products to ensure food quality.
- **FPP.02. CCTC Standard: Apply principles of nutrition, biology, microbiology, chemistry and human behavior to the development of food products.**
 - FPP.02.01. Performance indicator: Apply principles of nutrition and biology to develop food products that provide a safe, wholesome and nutritious food supply for local and global food systems.
- **FPP.03. CCTC Standard: Select and process food products for storage, distribution and consumption.**
 - FPP.03.01. Performance indicator: implement selection, evaluation and inspection techniques to ensure safe and quality food products.
 - FPP.03.02. Performance indicator: Design and apply techniques of food processing, preservation, packaging and presentation for distribution and consumption of food products.
 - FPP.03.03. Performance indicator: Create food distribution plans and procedures to ensure safe delivery of food products.

