Introduction to Agriscience
Curriculum Crosswalk
National Agriculture, Food and Natural Resources (AFNR) Career Cluster Content Standards

Unit 1  Career Opportunities in Agriculture

CS.02.03.01.a  Explore various career interests/options.
- career clusters and pathways  personal career interests and skills

CS.02.03.03.a  Identify the skills required for various careers.
- steps to setting career goals
- degree requirements, salary and job availability for agricultural careers

Unit 2  Record Keeping

ABS.01.02.01.a  Describe the meaning, importance and economic importance of entrepreneurship.
- types of SAEs

ABS.03.01.01.a  Maintain production and agribusiness records.
- inventory assets  record keeping transactions  closing records

ABS.04.01.01.a  Identify financial concepts associated with production and profit.
- sales and income  expenses  liabilities

ABS.05.01.01.a  Identify accounting information in AFNR business reporting and management.
- types of records kept  recording transactions

Unit 3  The Food Industry

CS.02.02.01.b  Discover the different cultures that exist in one’s community.
- food customs of major world populations

FPP.01.01.01.a  Discuss the history and describe and explain the components (e.g., processing, distribution, byproducts) of the food products and processing industry.

FPP.01.02.01.a  Explain the purposes of organizations that are part of or regulate the food products and processing industry.
- quality assurance  government regulations

FPP.04.02.01.a  Identify and describe foods derived from meat, egg, poultry, fish and dairy products.

FPP.04.02.02.a  Identify and describe products derived from fruits and vegetables.

FPP.04.02.03.a  Identify and describe products derived from grains, legumes and oilseeds.

Unit 4  Plant and Soil Science

ESS.03.02.01.a  Explain the process of soil formation through weathering.

ESS.03.02.03.a  Explain how the physical qualities of the soil influence the infiltration and percolation of water.
- sand, silt, clay  textural triangle

PS.01.01.01.a  Explain systems used to classify plants.
- taxonomy  life cycles  structures

PS.01.01.02.a  Describe the morphological characteristics used to identify agricultural plants.
- structures  monocot and dicot

PS.01.03.01.a  Explain the basic process of photosynthesis and its importance to life on Earth.

PS.01.03.02.a  Explain cellular respiration and its importance to plant life.

PS.02.01.01.a  Identify the major components of growing media and describe how growing media support plant growth.

Unit 5  The Beef Cattle Industry

AS.01.01.01.a  Identify the origin, significance, distribution and domestication of animal species.

AS.01.01.02.a  Define major components of the animal industry.
- specie breeds and characteristics  economic importance

AS.01.01.02.b  Outline the development of the animal industry and the resulting products, services and careers.
- phases of production  animals for work and recreation  consumer products

AS.02.01.02.a  Identify major animal species by common and scientific names.

AS.02.02.06.a  Describe the functions of the animal body systems and system components.
- anatomy/parts

Unit 6  The Swine Industry

AS.01.01.01.a  Identify the origin, significance, distribution and domestication of animal species.

AS.01.01.02.a  Define major components of the animal industry.
- specie breeds and characteristics  economic importance

AS.01.01.02.b  Outline the development of the animal industry and the resulting products, services and careers.
- phases of production  consumer products

AS.02.01.02.a  Identify major animal species by common and scientific names.

AS.02.02.06.a  Describe the functions of the animal body systems and system components.
- anatomy/parts

AS.06.02.02.a  Describe how animal identification systems can track an animal’s location, nutrition requirements, production progress and changes in health.
- swine universal ear notching system

Unit 7  The Sheep Industry

AS.01.01.01.a  Identify the origin, significance, distribution and domestication of animal species.

AS.01.01.02.a  Define major components of the animal industry.
- specie breeds and characteristics  economic importance

AS.01.01.02.b  Outline the development of the animal industry and the resulting products, services and careers.
- phases of production  consumer products
AS.02.01.02.a Identify major animal species by common and scientific names.

AS.02.02.06.a Describe the functions of the animal body systems and system components.
  • anatomy/parts

Unit 8 The Dairy Cattle Industry

AS.01.01.01.a Identify the origin, significance, distribution and domestication of animal species.

AS.01.01.02.a Define major components of the animal industry.
  • specie breeds and characteristics • economic importance

AS.01.01.02.b Outline the development of the animal industry and the resulting products, services and careers.
  • phases of production • consumer products

AS.02.01.02.a Identify major animal species by common and scientific names.

AS.02.02.06.a Describe the functions of the animal body systems and system components.
  • anatomy/parts • milk production

AS.06.02.02.a Describe how animal identification systems can track an animal’s location, nutrition requirements, production progress and changes in health.
  • advances in the dairy industry

Unit 9 The Horse Industry

AS.01.01.01.a Identify the origin, significance, distribution and domestication of animal species.

AS.01.01.02.a Define major components of the animal industry.
  • specie breeds and characteristics • economic importance

AS.01.01.02.b Outline the development of the animal industry and the resulting products, services and careers.
  • phases of production • animals for work and recreation

AS.02.01.02.a Identify major animal species by common and scientific names.

AS.02.02.06.a Describe the functions of the animal body systems and system components.
  • anatomy/parts

Unit 10 The Goat Industry

AS.01.01.01.a Identify the origin, significance, distribution and domestication of animal species.

AS.01.01.02.a Define major components of the animal industry.
  • specie breeds and characteristics • economic importance

AS.01.01.02.b Outline the development of the animal industry and the resulting products, services and careers.
  • phases of production • consumer products

AS.02.01.02.a Identify major animal species by common and scientific names.

AS.02.02.06.a Describe the functions of the animal body systems and system components.
  • anatomy/parts

Unit 11 The Poultry Industry

AS.01.01.01.a Identify the origin, significance, distribution and domestication of animal species.

AS.01.01.02.a Define major components of the animal industry.
  • specie breeds and characteristics • economic importance

AS.01.01.02.b Outline the development of the animal industry and the resulting products, services and careers.
  • phases of production • consumer products

AS.02.01.02.a Identify major animal species by common and scientific names.

AS.02.02.06.a Describe the functions of the animal body systems and system components.
  • anatomy/parts • egg development and incubation

Unit 12 Small Animal Care

AS.01.01.01.a Identify the origin, significance, distribution and domestication of animal species.

AS.01.01.02.a Define major components of the animal industry.
  • specie breeds and characteristics • economic importance

AS.01.01.02.b Outline the development of the animal industry and the resulting products, services and careers.
  • types and uses of small animals

AS.02.01.02.a Identify major animal species by common and scientific names.

AS.02.02.06.a Describe the functions of the animal body systems and system components.
  • anatomy/parts

Unit 13 Agricultural Mechanics Safety

CS.06.02.01.a Use proper safety practices/personal protective equipment.

CS.06.03.01.a Demonstrate the importance of safety, health, and environmental practices in the workplace.
  • maintaining shop safety

CS.07.04.02.a Handle chemicals and equipment in a safe and appropriate manner.
  • common hazards • welding safety

Unit 14 Arc Welding and Oxy-Gas Cutting

CS.08.01.01.a Identify standard tools, equipment, and safety procedures related to a specific task.
  • welding tools and equipment • cutting tools and equipment
  • fire classes and extinguishers

CS.08.01.02.a Follow operating instructions related to specific tools and equipment needed to complete a task.
  • operating a welder and cutting torch

CS.08.02.01.a Use the appropriate procedures for the use and operation of specific tools and equipment.
  • operating a welder and cutting torch

PST.04.04.07.b Distinguish welding processes, positions and materials preparation.
  • welding methods and equipment • striking an arc
  • running a bead • cutting equipment, gasses and process