

Intro to Agriculture, Food, and Natural Resources

Demonstrate understanding of agribusiness (e.g., SAE, expenses). 0101.1

- 1 Identify and describe the types of agribusiness ownership. 0101.1.1
- 2 Calculate return on investment. 0101.1.2
- 3 Identify methods of marketing agricultural commodities, products, and services in domestic and international markets and create a marketing plan for an agricultural commodity, product, or service. 0101.1.3
- 4 Define basic finance terms and provide examples - personal inventory, net worth, income, expense. 0101.1.4
- 5 Define and develop a Supervised Agricultural Experience Program (SAE). 0101.1.5
- 6 Define the Four Ps of marketing (product, place, price, and promotion). 0101.1.6
- 7 Create an advertisement for an agricultural product. 0101.1.7
- 8 Research local supply and demand of agricultural products. 0101.1.8
- 9 Create a plan and begin development for their own agricultural enterprises (SAE). 0101.1.9

Demonstrate understanding of animal systems (e.g., breeds of livestock, anatomy). 0101.2

- 1 Identify and describe the origin, significance, distribution, and domestication of animal systems. 0101.2.1
- 2 Recite and identify the common and scientific names of major animal species. 0101.2.2
- 3 Identify and differentiate between breeds of livestock. 0101.2.3
- 4 Identify anatomical parts of animals. 0101.2.4
- 5 Define livestock terminology (steer, heifer, barrow, gilt, etc.). 0101.2.5
- 6 Identify, draw, and label parts of animal cells. 0101.2.6
- 7 Define and identify animal health disorders and provide recommendations for common preventions and treatment. 0101.2.7

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- 8 Explain the importance of biosecurity in the animal industry.** 0101.2.8

 - 9 Identify common feedstuffs and their nutritional value.** 0101.2.9

 - 10 Explain the difference between animal welfare and animal rights and their value to the animal industry.** 0101.2.10

 - 11 Identify and describe the facilities needed to house and produce animal species safely and efficiently.** 0101.2.11

 - 12 Describe the effects of animal agriculture on the environment.** 0101.2.12

 - 13 Diagram a typical animal cell and identify the organelles.** 0101.2.13

 - 14 Practice administering injections.** 0101.2.14

 - 15 Perform a basic health exam on a live animal.** 0101.2.15

 - 16 Debate the issues associated with animal welfare and animal rights.** 0101.2.16
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Demonstrate understanding of agriculture innovation and technology. 0101.3

- 1 Define agricultural biotechnology.** 0101.3.1

 - 2 Identify and describe how biotechnology is applied in the agriculture industry.** 0101.3.2

 - 3 Identify and describe significant innovations and inventions in the history of agriculture and their impacts on the industry.** 0101.3.3

 - 4 Utilize agricultural related technology and equipment.** 0101.3.4

 - 5 Identify and debate the issues associated with biotechnology use in the agriculture industry.** 0101.3.5

 - 6 Research current agricultural products impacted by biotechnology practices.** 0101.3.6
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Demonstrate understanding of food products and processing (e.g., protein sources, food preservation). 0101.4

- 1 Identify key advancements in the history of animal and food processing.** 0101.4.1

- 2 Discuss the importance of food labeling to consumers.** 0101.4.2

- 3 Define and differentiate the quality and yield grades of food products and what they mean to the consumer.** 0101.4.3

- 4 Identify food products derived from meat, egg, poultry, fish, and dairy products.** 0101.4.4

- 5 Identify food products derived from fruit and vegetables.** 0101.4.5

- 6 Identify food products derived from grains, legumes, and oilseeds.** 0101.4.6

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- 7 Identify common weights and measures in the food production and processing industry and apply the use of those measurements.** 0101.4.7

 - 8 Identify and describe methods of food preservation.** 0101.4.8

 - 9 Produce a food product (cheese, sausage, sauerkraut, etc.).** 0101.4.9

 - 10 Compare and contrast various food labels.** 0101.4.10

 - 11 Conduct a food preservation experiment.** 0101.4.11
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Demonstrate understanding of natural resources (e.g., renewable resources). 0101.5

- 1 Identify, define, and describe characteristics of various ecosystems.** 0101.5.1

 - 2 Identify, define, and describe characteristics of various renewable resources.** 0101.5.2

 - 3 Identify, define, and describe characteristics of various nonrenewable resources.** 0101.5.3

 - 4 Identify, define, and describe characteristics of various alternative energy sources.** 0101.5.4
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Demonstrate understanding of plant systems (e.g., plant parts, processes, soil). 0101.6

- 1 Identify parts of a plant.** 0101.6.1

- 2 Describe the functions of plant parts.** 0101.6.2

- 3 Define components of soil and how soil is formed.** 0101.6.3

- 4 Identify and describe the nutritional requirements for plant growth.** 0101.6.4

- 5 Describe the processes of the following plant physiologies; photosynthesis, reproduction, respiration, and transpiration.** 0101.6.5

- 6 Diagram a typical plant cell and identify plant cell organelles and their functions.** 0101.6.6

- 7 Identify the components and explain the functions of plant roots.** 0101.6.7

- 8 Identify the components and explain the functions of plant stems.** 0101.6.8

- 9 Identify the components and explain the functions of plant leaves.** 0101.6.9

- 10 Identify the components and explain the functions of plant flowers.** 0101.6.10

- 11 Conduct soil samples and soil tests.** 0101.6.11

- 12 Interpret soil test results and determine fertilizer and applications needs.** 0101.6.12

13 Identify agriculturally important plants by common names. 0101.6.13

Demonstrate understanding of power, structural, and technical systems (e.g., measurement). 101.7

1 Identify units of weight, volume, length, and temperature. 0101.7.1

2 Calculate basic math practices used in Power, Structural and Technical Systems. 0101.7.2

3 Identify basic hand tools and demonstrate their proper uses in an agricultural setting. 0101.7.3

4 Add, subtract, multiply, and divide whole numbers, with and without a calculator. 0101.7.4

5 Use a ruler, a metric ruler, and a measuring tape to measure. 0101.7.5

6 Add, subtract, multiply, and divide fractions. 0101.7.6

7 Add, subtract, multiply, and divide decimals with and without a calculator. 0101.7.7

8 Convert decimals to percentages and percentages to decimals. 0101.7.8

9 Convert fractions to decimals and decimals to fraction. 0101.7.9

10 Properly and safely use hand tools. 0101.7.10

11 Construct a project using hand tools. 0101.7.11

Demonstrate knowledge of leadership development through FFA (e.g., motto, parliamentary procedure, official dress). 0101.8

1 Explain the components and importance of the Three Circle Model of Agricultural Education. 0101.8.1

2 Recite the FFA Creed. 0101.8.2

3 Recite the FFA Motto. 0101.8.3

4 Research the important dates and events in FFA History. 0101.8.4

5 Perform basic parliamentary procedure operations (make a motion, second a motion, debate a motion). 0101.8.5

6 Participate in FFA leadership opportunities offered at the local, state, and national level. 0101.8.6

7 Participate in FFA intracurricular competitive opportunities at the local, state, and national level. 0101.8.7

8 Participate in community service and career awareness activities at the local, state, and national level. 0101.8.8
