**AGRICULTURE, FOOD & NATURAL RESOURCES CAREER CLUSTER DESIGN:**

**Agriculture Science Pathway**

***CHECKLIST*:** ***Ag. Explorations* (68001)**

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| --- | --- | --- | --- | --- | --- |
| **Standard** | **Dates Taught** | | | | **Notes** |
| **Agriculture in Our Society** | | | | | |
| 1. Define Agriculture |  |  |  |  |  |
| 1. Identify the major sectors of the agriculture industry. |  |  |  |  |  |
| 1. Describe the history of Agriculture. |  |  |  |  |  |
| 1. Graph & discuss the change in world population over the last 100 years and its impact on land, medicine, food production and supply, and agriculture technology. |  |  |  |  |  |
| 1. Describe the size, number, and what is grown on farms in Kansas and your home county. |  |  |  |  |  |
| 1. Describe the importance of American agriculture in world food production. |  |  |  |  |  |
| **Opportunities in Agriculture Eductaion & FFA** | | | | | |
| 1. Define the purpose of FFA. |  |  |  |  |  |
| 1. Draw the three circle model of agriculture education and label the parts. |  |  |  |  |  |
| 1. Describe how the FFA evolved. |  |  |  |  |  |
| 1. Describe how the FFA is organized on local state and national levels. |  |  |  |  |  |
| 1. Identify the National FFA and Agriculture Education Mission statements. |  |  |  |  |  |
| 1. List 5 opportunities in FFA. |  |  |  |  |  |
| 1. Recite the FFA Motto. |  |  |  |  |  |
| 1. List the items of official dress required for your gender & the guidelines to abide by when wearing the jacket. |  |  |  |  |  |
| 1. List and describe the symbols in the FFA emblem. |  |  |  |  |  |
| 1. Identify the colors of the FFA. |  |  |  |  |  |
| 1. List the degrees available in FFA. |  |  |  |  |  |
| 1. Recite the FFA Creed. |  |  |  |  |  |

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| **Careers in Agriculture** | | | | | |
| 1. Define profession, career and job. |  |  |  |  |  |
| 1. Research agriculture career opportunities. |  |  |  |  |  |
| 1. Identify an example of a career in each sector. |  |  |  |  |  |
| 1. Identify important skills for all careers. |  |  |  |  |  |
| 1. Identify career interests and preferences. |  |  |  |  |  |
| 1. Create a career development plan. |  |  |  |  |  |
| 1. Define Parliamentary Procedure. |  |  |  |  |  |
| 1. Demonstrate how to present a main motion. |  |  |  |  |  |
| **Leadership and Life Knowledge** | | | | | |
| 1. Define Leadership |  |  |  |  |  |
| 1. Define Personal Growth |  |  |  |  |  |
| 1. Define Career Success |  |  |  |  |  |
| **Agriculture Safety** | | | | | |
| 1. Describe the safety hazards associated with agriculture in the following areas. |  |  |  |  |  |
| 1. Farm Shop |  |  |  |  |  |
| 1. Animal |  |  |  |  |  |
| 1. Machinery and equipment |  |  |  |  |  |
| 1. Chemicals |  |  |  |  |  |
| 1. Stress and fatigue |  |  |  |  |  |
| 1. Describe the proper attire for working in and around agriculture |  |  |  |  |  |
| 1. Identify a Slow Moving Vehicle sign. |  |  |  |  |  |
| **Record Keeping & SAE** | | | | | |
| 1. Define income & expense. |  |  |  |  |  |
| 1. Demonstrate basic record keeping skills. |  |  |  |  |  |
| 1. Develop and set a goal. |  |  |  |  |  |
| 1. Define SAE |  |  |  |  |  |
| 1. Describe the different types of SAEs *(exploratory, research, entrepreneurship, placement).* |  |  |  |  |  |

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| **Agribusiness Systems** | | | | | |
| 1. Define and give examples of agribusinesses. |  |  |  |  |  |
| 1. Define the words import and export. |  |  |  |  |  |
| 1. Explain the relationship between producers and agribusinesses. |  |  |  |  |  |
| 1. Discuss the three segments of agribusinesses including production agriculture, agriculture input suppliers and agriculture marketing and processing. |  |  |  |  |  |
| 1. Compare the price a producer recieves to the price a consumer pays and disucss what other costs are involved in production. |  |  |  |  |  |
| 1. Define management. |  |  |  |  |  |
| 1. Identify 5 agribusinesses and their purpose in the community. |  |  |  |  |  |
| **Plants Systems** | | | | | |
| 1. Define agronomy. |  |  |  |  |  |
| 1. List the top 5 agronomic crops grown in Kansas. |  |  |  |  |  |
| 1. List a product made from each of those crops. |  |  |  |  |  |
| 1. Identify 3 pieces of machinery used in crop production. |  |  |  |  |  |
| 1. Describe how agronomic crops are used for food, textiles, feed & energy. |  |  |  |  |  |
| 1. Define Horticulture. |  |  |  |  |  |
| 1. Identify five horticultural crops. |  |  |  |  |  |
| 1. Describe how to care and maintain a lawn or garden. |  |  |  |  |  |
| **Animal Systems** | | | | | |
| 1. Describe the basic needs of all animals. |  |  |  |  |  |
| 1. List five examples of large animals. |  |  |  |  |  |
| 1. Define & list examples of animal byproducts. |  |  |  |  |  |
| 1. List five examples of small animals. |  |  |  |  |  |
| 1. Estimate the cost for the care of a pet. |  |  |  |  |  |
| 1. Research the care and handling for an animal of your choice. |  |  |  |  |  |

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| **Power Structural and Technical Systems** | | | | | |
| 1. Describe the components of power structural and technical systems including *(electrical, carpentry, plumbing, welding, concrete, agriculture power, surveying, gps).* |  |  |  |  |  |
| 1. Abide by the safety guidelines |  |  |  |  |  |
| 1. Identify 10 common hand tools |  |  |  |  |  |
| 1. Identify and describe the uses for 5 power tools. |  |  |  |  |  |
| 1. Demonstrate proper measuring skills using hand tools. |  |  |  |  |  |
| **Natural Resource Systems** | | | | | |
| 1. Define and list examples of Natural Resources. |  |  |  |  |  |
| 1. Differentiate between renewable and non renewable resources. |  |  |  |  |  |
| 1. Describe the habitat of a native Kansas wildlife species. |  |  |  |  |  |
| 1. Define soil. |  |  |  |  |  |
| 1. Describe the forestry industry in Kansas. |  |  |  |  |  |
| **Environmental Systems** | | | | | |
| 1. List causes of erosion to soil. |  |  |  |  |  |
| 1. List important soil and water conservation practices. |  |  |  |  |  |
| 1. Discuss major threats to water quality. |  |  |  |  |  |
| 1. Describe common threats to air quality. |  |  |  |  |  |
| **Food Products and Processing** | | | | | |
| 1. List the steps food must go through to get from the producer to the consumer. |  |  |  |  |  |
| 1. Explain how food can become unsafe to eat. |  |  |  |  |  |
| 1. Analyze and understand a food label. |  |  |  |  |  |
| 1. Describe the need for processing facilities for agriculture products. |  |  |  |  |  |
| 1. List new uses for existing food products *(i.e. – soy milk).* |  |  |  |  |  |
| 1. Evaluate meat and produce for quality. |  |  |  |  |  |
| 1. Describe safe food handling techniques. |  |  |  |  |  |

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| **Agriculture Issues** | | | | | |
| 1. Define agricultural issues. |  |  |  |  |  |
| 1. Describe how technology is used in agirculture. |  |  |  |  |  |
| 1. Identify and describe a technological advancement that has happened in the last 5 years. |  |  |  |  |  |
| 1. Research a current agriculture issue. |  |  |  |  |  |
| **Work Place Skills/Listening Skills** | | | | | |
| 1. Follows oral instructions: |  |  |  |  |  |
| 1. Listen for and identify key words. |  |  |  |  |  |
| 1. Listen for words that identify a procedure. |  |  |  |  |  |
| 1. Listen for steps or actions to be performed. |  |  |  |  |  |
| 1. Listen for clues regarding the order or sequence in which a task is performed. |  |  |  |  |  |
| 1. Distinguish fact, opinion, and inference in oral communication. |  |  |  |  |  |
| 1. Interpret nonverbal cues *(eye contact, posture, gestures).* |  |  |  |  |  |
| 1. Analyze a speaker’s point of view. |  |  |  |  |  |
| 1. Draw conclusions or make generalizations from another’s oral communication. |  |  |  |  |  |
| 1. Restate or paraphrase a conversation to confirm what was said. |  |  |  |  |  |
| 1. Reduce barriers *(or interference)* that may impede effective listening. |  |  |  |  |  |
| **Decision Making/Problem Solving** | | | | | |
| 1. Describe the factors that impact on 2. decision making: |  |  |  |  |  |
| 1. Needs and wants |  |  |  |  |  |
| 1. Values |  |  |  |  |  |
| 1. Goals |  |  |  |  |  |
| 1. Standards |  |  |  |  |  |
| 1. Distinguish between types of decisions: economic and/or technical. |  |  |  |  |  |
| 1. Apply the steps in interpreting a 2. problem, coming up with a plan and then a result. |  |  |  |  |  |

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| **Teamwork** | | | | | |
| 1. Participate in team activities, and complete team tasks. |  |  |  |  |  |
| 1. Clarify statements, receive and give information, procpose alternative plans and come up with a workable solution. |  |  |  |  |  |