**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.
 |  |  |  |  |  |