Introduction to Agriculture - 18001

Kansas Agriculture Education

Name: _____

Instructor: _____ School Year:_____

Hours Completed _____ Competencies Completed _____/125
Verification Signatures:

Student: _____ Date: _____

Instructor: _____ Date: _____

Key to Integrated Competencies
(CD)- Career Development
(L)- Leadership
(E) - Experienced Based
(LK) - LifeKnowledge Lessons
(LA) – Language Arts
(M) - Math
(S) – Science
(SS) – Social Science

Circle to indicate level of competency achieved:
3 - Skilled-Works Independently **2** Limited skill-Needs assistance **1** -Skill undeveloped-but received instruction **0** -No exposure

018.Agriscience in Our World

3 2 1 0 1. Define and relate agriscience to agriculture, agribusiness, and renewable natural resources. (LA)
3 2 1 0 2. Connect biology, chemistry, and biochemistry to agriscience (S)
3 2 1 0 3. Analyze how the world population affects today's agriculture industry. (SS)
3 2 1 0 4. Identify significant historical developments in agriscience. (SS)
3 2 1 0 5. Examine important research achievements in agriscience and future research implications. (S)
3 2 1 0 6. Compare and contrast the methods of agriculture used in the local, county, state, nation, and world. (SS, LA)
3 2 1 0 7. Describe the importance of agriculture products in everyday life. (E, SS)

019. Opportunities in the Agriculture Education & FFA

3 2 1 0 1. Distinguish between and describe the three parts of the agricultural education model and how they work together. (LK HS 114) (LA)
3 2 1 0 2. Identify different areas and describe the importance of agriculture education and the agriculture education mission statement. (L, LA) (LK HS 110)
3 2 1 0 3. Create a timeline of important events in FFA history. (LA) (LK HS 109)
3 2 1 0 4. Identify and describe the FFA mission statement. (L, LA) (LK HS 110)
3 2 1 0 5. Recite and understand the FFA Creed. (E, LA) (LK HS 110)
3 2 1 0 6. Relate the FFA motto to daily life. (L, E) (LK HS 110)
3 2 1 0 7. List the requirements for FFA degrees. (L, E) (LK MS 70)
3 2 1 0 8. List the items of official dress required for your gender & the guidelines to abide by when wearing the jacket. (L, E) (LK HS 115)
3 2 1 0 9. List and describe the symbols of the FFA emblem. (L) (LK HS 111)
3 2 1 0 10. Identify the colors of the FFA. (L) (LK MS 65)
3 2 1 0 11. Research 3-5 potential Career Development Events. (CD)

020. Careers in Agriculture

3 2 1 0 1. List the career pathways for agriculture, food and natural resources (LK.HS.31). (CD)
3 2 1 0 2. Research a potential agriculture career based on your interests. (CD)
3 2 1 0 3. Develop a strategy to advance in that career (LK.HS.40). (CD, L)

021. Leadership and LifeKnowledge

3 2 1 0 1. Identify five characteristics of leadership (LK HS 1). (L)
3 2 1 0 2. Define the term "leadership" (LK.HS.1). (L)
3 2 1 0 3. Identify available leadership opportunities (LK.HS.1) (L)
3 2 1 0 4. Differentiate between a group and a team (LK.HS.65). (L)
3 2 1 0 5. Define teamwork and identify six benefits to working in teams (LK.HS.65). (L)
3 2 1 0 6. Understand and create personal goals using S.M.A.R.T. goals. (L, LA) (LK HS 45)
3 2 1 0 7. Describe the purpose and benefits of parliamentary procedure. (L, LA) (LK HS 81 & AHS 47)
3 2 1 0 8. Demonstrate five parliamentary procedure motions. (L, LA)

022. Public Speaking

3 2 1 0 1. Explain the relationship between communication and leadership. (L, LA)
3 2 1 0 2. List reasons why students should learn public speaking. (L, LA)
3 2 1 0 3. Create an outline and manuscript for an agricultural or leadership speech. (LA)
3 2 1 0 4. Demonstrate basic principles of speaking. (LA, L) (LK HS 90 & 91)

023. Supervised Agricultural Experience/Record Keeping

3 2 1 0 1. Explain the importance of record keeping (LK.MS.69). (LA)
3 2 1 0 2. Describe the different types of SAEs (exploratory, research, entrepreneurship and placement). (LK.HS.126) (CD)
3 2 1 0 3. Develop a plan for establishing an SAE

program (LK.HS.127). (LA)
3 2 1 0 4. List proficiency award opportunities available through your SAE. (CD)
3 2 1 0 5. Record income and expenses into a record keeping format. (M)
3 2 1 0 6. Record current and non-current inventories. (M)
3 2 1 0 7. Compare and contrast entries for personal and SAE inventories. (M)

024. Agribusiness Systems

3 2 1 0 1. Compare the three segments of agribusiness. (CD)
3 2 1 0 2. Identify examples of each segment and its role in the community. (CD, L, SS)
3 2 1 0 3. Define entrepreneurship. (CD, LA)
3 2 1 0 4. Identify methods of marketing. (CD, LA)
3 2 1 0 5. Graph an agricultural example of supply and demand. (CD, SS)

025. Plant Systems

3 2 1 0 1. Draw and label the major parts of plants. (S)
3 2 1 0 2. Describe the major function of roots, stems, fruits and leaves. (S)
3 2 1 0 3. Draw and label the parts of a typical root, stem, flower, and leaf. (S)
3 2 1 0 4. Distinguish between sexual and asexual reproduction. (S)
3 2 1 0 5. Draw and label the reproductive parts of flowers and seeds. (S)
3 2 1 0 6. Compare the primary methods of asexual reproduction. (S)
3 2 1 0 7. Identify the top five crops in your county and state.
3 2 1 0 8. List the requirements for plant growth. (S)
3 2 1 0 9. Illustrate the importance of photosynthesis. (S)
3 2 1 0 10. Compare and contrast monocots and dicots. (S)
3 2 1 0 11. Identify machinery used in forage, crop, horticulture, and landscape businesses. (CD)

026. Animal Systems

3 2 1 0 1. Define domestic animals. (CD)
3 2 1 0 2. List the basic needs of animals. (CD, S)
3 2 1 0 3. Discuss the purposes of livestock and companion animals. (E, LA)
3 2 1 0 4. Identify the importance of vaccinations. (CD, S)
3 2 1 0 5. Describe characteristics of unhealthy animals. (CD)
3 2 1 0 6. Compare animal digestive systems. (S)
3 2 1 0 7. Identify and compare breeding management systems (reproduction). (S)
3 2 1 0 8. Identify animal gender terms. (S)
3 2 1 0 9. Identify major breeds of livestock. (CD)
3 2 1 0 10. Identify types of companion animals. (CD)
3 2 1 0 11. Describe trends in the animal science industry (such as the increase in poultry production). (CD)
3 2 1 0 12. Research an animal of your choice. (LA)

027. Power Structural and Technical Systems

3 2 1 0 1. Explain and abide by the safety guidelines. (CD)
3 2 1 0 2. Demonstrate safety practices in laboratory work. (E)
3 2 1 0 3. Locate safety equipment and emergency exits in the agricultural mechanics laboratory. (E)
3 2 1 0 4. Identify common hand and power tools. (CD)
3 2 1 0 5. Demonstrate proper safety techniques for using hand and power tools. (CD, E)
3 2 1 0 6. Identify the major parts of an arc welder. (CD)
3 2 1 0 7. Select the proper electrode to use when welding. (CD)
3 2 1 0 8. Demonstrate basic welding skills using the arc welder. (CD, E)
3 2 1 0 9. Distinguish between different welding practices. (CD, E)

028. Natural Resource Systems

3 2 1 0 1. List and describe major kinds of natural resources. (S)
3 2 1 0 2. Define sustainable resources. (S)
3 2 1 0 3. Compare and contrast conservation and preservation. (S)
3 2 1 0 4. List types of alternative fuels and explain why they are important. (S)
3 2 1 0 5. Illustrate and describe the food chain. (S)
3 2 1 0 6. Identify wildlife habitats for native Kansas animals. (S)
3 2 1 0 7. Research an endangered species. (S)
3 2 1 0 8. List the four components of soil.(S)
3 2 1 0 9. Identify the different soil classes. (S)
3 2 1 0 10. Compare sand, silt, and clay particles in a soil sample. (S)

029. Environmental Systems

3 2 1 0 1. Discuss major types and sources of pollution. (S)
3 2 1 0 2. Develop a plan of action to improve the environment. (LA)
3 2 1 0 3. Illustrate the water cycle. (S)
3 2 1 0 4. Discuss global warming and the greenhouse effect. (S)

030. Food Products and Processing Systems

3 2 1 0 1. List the steps food must go through to from the producer to the consumer. (S)
3 2 1 0 2. Identify food safety concerns. (S)
3 2 1 0 3. Identify government agencies involved in food production. (S,SS)
3 2 1 0 4. Discuss biotechnology advancements currently in the food industry. (S)
3 2 1 0 5. Discuss future developments predicted for the food industry. (E)

031. Agricultural Issues

3 2 1 0 1. Define agricultural industry terms (ex. Biotechnology, bio-terrorism, wind power). (CD, E)
3 2 1 0 2. Identify and describe a technological advancement that has happened in the last five years. (LA, L)
3 2 1 0 3. Research a current agriculture issue. (LA)
3 2 1 0 4. Discuss nutritional needs of humans and the food groups they need. (S)
3 2 1 0 5. Cite important relationships between land characteristics and water quality.

Work Place Skills

032. Listening Skills

1. Follows oral instructions:

3 2 1 0 a. Listen for and identify key words.L3A
3 2 1 0 b. Listen for words that identify a procedure.
3 2 1 0 c. Listen for steps or actions to be performed.
3 2 1 0 d. Listen for clues regarding the order or sequence in which a task is performed.
3 2 1 0 2. Distinguish fact, opinion, and inference in oral communication. L2D
3 2 1 0 3. Interpret nonverbal cues (eye contact, posture, gestures) L3A.
3 2 1 0 4. Analyze a speaker's point of view. L3B
3 2 1 0 5. Draw conclusions or make generalizations from another's oral communication. L2A
3 2 1 0 6. Restate or paraphrase a conversation to confirm what was said. L2A
3 2 1 0 7. Reduce barriers (or interference) that may impede effective listening L5B

033. Resource Management

3 2 1 0 1. Locate information and select the materials, tools, and equipment needed to perform an activity or build a project.
3 2 1 0 2. Determine cost, time, and resources needed to complete a task within an industry or occupation.
3 2 1 0 3. Explain the relationship between setting goals and managing money.
3 2 1 0 4. Identify fixed a flexible expenses.
3 2 1 0 5. Identify planned and impulse buying.

034. Oral Communications

3 2 1 0 6. Organize notes and ideas for formal, semiformal, and informal presentations. L3A
3 2 1 0 7. Prepare and deliver a presentation appropriate to subject matter, purpose, and audience. L3B
3 2 1 0 8. Use interviewing techniques to gather information. L4D
3 2 1 0 9. Participate in group communication activities. L1C
3 2 1 0 10. Incorporate visual media into a presentation. L4E
3 2 1 0 11. Demonstrate concise impromptu speaking skills. L3B
3 2 1 0 12. Give oral directions.L3A
3 2 1 0 13. Demonstrate job interview skills. L10B