Kentucky CTE

MS Ag Education: Level 2 (2025)

Ag Systems

Animal Science

1 Analyze the role and importance of different livestock production systems (beef, dairy, pork, equine, and small ruminant.) OB1

2 Differentiate 4-5 major animal breeds per species (beef, dairy, swine, poultry, equine, companion.) OB2

3 Identify the major components and functions of animal digestive systems (ruminant and non-ruminant.) OB3

Plant Science

4 Explain the requirements necessary for photosynthesis to occur. OB4

5 Identify the products and byproducts of photosynthesis. OB5

6 Explain the structure and function of the reproductive parts of a plant. OB6

7 Explore the areas of horticulture and crop production (floriculture, nursery/landscape, orchards/gardens, row crops, forages.) OB7

Natural Resources

9 Describe renewable and non-renewable natural resources and energy sources. OB9

8 Discuss how agricultural practices positively and negatively impact the environment and natural resources (cover crops, no-till, timber management, manure management, fish stocking.) OB8

9 Describe renewable and non-renewable natural resources and energy sources. OB9

10 Assess ecosystems in terms of sustainable habitat management. OB10

Agricultural Power, Structural, and Technical Systems

11 Perform basic measurements using a tape measure or ruler. OB11

12 Identify and safely operate basic hand tools (saw, level, screwdriver, hand tools, etc.) OB12

13 Identify common safety signs and terminology. OB13

Co[illegible] Consumerism

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Analyze the impact and changes throughout the history of American agriculture. OB14	**14** **Analyze the impact and changes throughout the history of American agriculture.** OB14
Describe agricultural practices that ensure a safe and reliable food supply. OB15	**15** **Describe agricultural practices that ensure a safe and reliable food supply.** OB15
Investigate and differentiate food labels (nutritional facts, health claims, production practices) OB16	**16** **Investigate and differentiate food labels (nutritional facts, health claims, production practices)** OB16
Demonstrate safe methods for food handling, preparation, and storage in the home. OB17	**17** **Demonstrate safe methods for food handling, preparation, and storage in the home.** OB17
Explain how factors such as culture, convenience, access, and marketing affect food choices. OB18	**18** **Explain how factors such as culture, convenience, access, and marketing affect food choices.** OB18
Careers	**Careers**
Demonstrate ability to wear appropriate PPE for the career site. OB19	**19** **Demonstrate ability to wear appropriate PPE for the career site.** OB19
Design and carry out a Supervised Agricultural Experience (SAE) program based on career goals and industry needs for each individual. OB20	**20** **Design and carry out a Supervised Agricultural Experience (SAE) program based on career goals and industry needs for each individual.** OB20
Exhibit critical thinking and problem-solving skills to locate, analyze, and apply information in rea sit	**21** **Exhibit critical thinking and problem-solving skills to locate, analyze, and apply information in real-world situations.** OB21

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Leadership	Leadership
Develop goals related to leadership, personal growth, and career success. 0B22	**22 Develop goals related to leadership, personal growth, and career success.** 0B22
Effectively communicate and collaborate with peers through reading, writing, and speaking. 0B23	**23 Effectively communicate and collaborate with peers through reading, writing, and speaking.** 0B23
Seek and capitalize on self-improvement opportunities through school and community groups including the National FFA Organization. 0B24	**24 Seek and capitalize on self-improvement opportunities through school and community groups including the National FFA Organization.** 0B24