



Goodheart-Willcox Publisher Correlation of <i>Principles of Agriculture, Food, and Natural Resources</i> ©2017 to Alabama Course of Study: CTE Agriculture, Food, and Natural Resources Course: Fundamentals of Agriscience, Grades 9-12	
STANDARD	CORRELATING PAGES
Impact of Agriculture	
1. Define <i>agriculture</i> and identify major divisions of the agriculture industry.	2, 5-8
a. Identify major agricultural commodities in the local area, state, nation, and world.	8-10
b. Describe various agricultural organizations and their roles in the agricultural industry.	60-61
2. Create a timeline listing major changes and accomplishments in the history of agriculture.	47-48
Technology Applications	
3. Utilize technology to access, manage, and integrate agricultural information. a. Identify technological advances that enhance the agriculture industry.	35-37
Agribusiness Leadership	
4. Apply problem-solving and decision-making skills to address agribusiness issues.	50-61, 103, 105, 118-119, 199, 402
5. Discuss the history and structure of agriscience education and its three-circle model.	103, 221, 227-228
a. Examine the history of the National FFA Organization.	98, 100, 110
b. List legislation which mandates or supports agricultural education.	25
6. Identify components of a Supervised Agricultural Experience (SAE), including manageability, record keeping, availability of facilities, financing, and award opportunities.	100-101, 103-108, 110-114, 154-155, 341
a. Identify financial considerations as factors to be considered in agricultural opportunities and selecting a Supervised Agricultural Experience (SAE).	100-101, 103-108, 110-114, 154-155, 341

7. Demonstrate communication skills through Leadership Development Events (LDEs), including prepared public speaking, extemporaneous speaking, creed speaking, conduct of a chapter meeting, and parliamentary procedure.	64-69
a. Practice listening and speaking skills.	64-69
b. Refine reading and writing skills.	64-69
Environmental Science	
8. Identify methods and practices for conserving the environment.	918-928, 940-943, 971-974, 977-990, 1030-1039
a. Explain the importance of natural resources.	1030-1039
9. Identify major soil areas in Alabama.	51-952
a. Identify layers of soil in a soil profile.	798-799, 922-923, 926, 929-945, 977-982, 988
b. Determine the texture of various soil samples.	798-799, 922-923, 926, 929-945, 977-982, 988
c. Determine the land capability class for a given plot of land.	798-799, 922-923, 926, 929-945, 977-982, 988
d. Explain how to adjust soil pH.	798-799, 922-923, 926, 929-945, 977-982, 988
10. Discuss forest management practices.	
a. Identify trees for local, state, national, and global markets.	1065-1068
b. Identify potential hazards for Alabama forests and forest professionals.	
11. Discuss ethical and legal responsibilities involved in wildlife management.	1018-1029
a. Describe state hunting laws and regulations concerning wildlife.	1018-1029
b. Explain hunting safety practices.	1018-1029
12. Identify common fish and wildlife species of Alabama.	692
Plant Science	
13. Identify characteristics and functions of plants.	738-745, 747, 750-753, 933
a. Explain plant processes, including photosynthesis, respiration, and transpiration.	738-745, 747, 750-753, 933
b. Identify the essential elements needed for plant health and growth.	738-745, 747, 750-753, 933

c. Identify various necessities for producing plants.	738–745, 747, 750–753, 933
d. Demonstrate sexual and asexual plant propagation.	738–745, 747, 750–753, 933
e. Discuss the use of chemicals in agriculture.	971, 983
Animal Science	
14. Identify characteristics of common breeds of livestock including cattle, swine, sheep, equine animals, and poultry.	186–187, 264,–266–268, 282, 387–389, 488, 512, 514, 538–562, 578, 581–586, 588, 602, 603–611, 612–613, 616–618, 620–625, 761, 871, 964–965, 984
a. Identify species-specific terminology used to identify livestock.	186–187, 264,–266–268, 282, 387–389, 488, 512, 514, 538–562, 578, 581–586, 588, 602, 603–611, 612–613, 616–618, 620–625, 761, 871, 964–965, 984
b. Explain practices used to manage livestock, including handling, breeding, vaccinating, and transporting.	186–187, 264,–266–268, 282, 387–389, 488, 512, 514, 538–562, 578, 581–586, 588, 602, 603–611, 612–613, 616–618, 620–625, 761, 871, 964–965, 984
c. Determine nutritional requirements for livestock, including cattle, swine, sheep, equine animals, and poultry.	186–187, 264,–266–268, 282, 387–389, 488, 512, 514, 538–562, 578, 581–586, 588, 602, 603–611, 612–613, 616–618, 620–625, 761, 871, 964–965, 984
15. Differentiate among types of aquaculture enterprises in Alabama, including catfish, crawfish, shrimp, and tilapia.	692
Industrial Agricultural Technology	
16. Apply mathematical, reading, and writing skills used in woodworking.	350–352, 399
a. Demonstrate procedures for constructing a woodworking project, including completing a bill of materials, calculating board feet, selecting tools, applying measurements, cutting, assembling, and finishing.	370–374,
17. Examine procedures used in welding.	159–164
18. Explain the theory of operation for two- and four-stroke small engines.	362
19. Identify major components and functions of basic wiring circuits.	168, 278



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20. Identify procedures for installing and maintaining plumbing lines and fixtures for structures.	379, 391, 684-685, 982-984
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