COLLEGE & CAREER

AGRICULTURE, FOOD, AND NATURAL RESOURCES

# Core Curriculum

## Index of Curriculum Libraries

*The following index provides a summary of available topic areas within the Illinois Core Curriculum for Agricultural Education. Specific resources can be accessed by contacting your regionally assigned program advisor through the Facilitating Coordination in Agricultural Education (FCAE) project. FCAE program advisors are available for onsite or virtual assistance, as requested. Contact FCAE. Participation in local, state, and national FFA activities, as well as Supervised Agricultural Experience (SAE) projects, is an integral role in all agricultural education curriculum.*

### What is FFA?

Illinois FFA is a dynamic youth organization that changes lives and prepares members for premier leadership, personal growth, and career success through agricultural education. Illinois FFA develops members' potential and helps them discover their talent through hands-on experiences, which give members the tools to achieve real-world success.

FFA is not just for students who want to be production farmers; FFA also welcomes members who aspire to careers as teachers, doctors, scientists, business owners, and more. Illinois FFA members are future chemists, veterinarians, government officials, entrepreneurs, bankers, international business leaders, teachers, and premier professionals in many career fields.

FFA is an intracurricular student organization for those interested in agriculture and leadership. The official name of the organization is the Illinois Association FFA. The letters "FFA" stand for Future Farmers of America. These letters are a part of our history and our heritage that will never change. Our members live our FFA motto: "Learning to Do, Doing to Learn, Earning to Live, and Living to Serve." FFA members rise to the challenge of service by embracing all walks of life united through FFA.

### What is SAE?

Supervised Agricultural Experiences occur when students work with agriculture teachers and/or designated supervisors to plan, conduct, record, and reflect on a unique work-based learning project. SAEs can be conducted in the form of internship or jobs, entrepreneurship, research, school-based enterprises, and service-learning projects. SAEs are an integral component of curriculum as they allow individual exploration and career skill-development in a unique area of interest.

# Libraries and Subsequent Units

1. Agriculture, Food, and Natural Resources General (includes FFA, SAE, and Leadership)
    - A. Introduction to the AFNR Industry
    - B. FFA
    - C. Supervised Agricultural Experiences
    - D. Communication Skills
    - E. Careers in the AFNR Industry
    - F. Developing Leadership Skills and Workplace Skills

2. Agricultural Power, Structural, and Technical Systems (PSTS)
    - A. Introduction to PSTS
    - B. Power Systems
    - C. Structural Systems
    - D. Technology Systems
    - E. Agricultural Systems

3. Agribusiness
    - A. Introduction to Agribusiness
    - B. Starting and Operating an Agribusiness
    - C. Agricultural Economics
    - D. International Agriculture
    - E. Agricultural Law

4. Agribusiness (5E)[1]
    - A. Agribusiness Principles
    - B. Agribusiness
    - C. Economics and Trade
    - D. Law
    - E. Personal Finance

5. Animal Biology (5E)
    - A. Animal Anatomy and Physiology
    - B. Animal Reproduction
    - C. Animal Management
    - D. Agroecology

6. Animal, Plant, and Soil Science
    - A. Scientific Research
    - B. Introduction to Plant and Animal Science Concepts
    - C. Animal Science and the Industry
    - D. Soil Science
    - E. Plant Science

7. Biotechnology Systems
    - A. Recognize the Historical, Social, Cultural, and Potential Applications of Biotechnology
    - B. Demonstrate Laboratory Skills as Applied to Biotechnology
    - C. Demonstrate the Application of Biotechnology to AFNR

[1] The Agribusiness Library was revised in 2021 using the 5E instructional design model wherein students progress through five instructional phases, all starting with the letter E: engagement, exploration, explanation, elaboration, and evaluation. To learn more about the 5E instructional model, check out this teacher guide.

8. Biological Science Applications in Agriculture
    A. Plant Science
    B. Animal Science
    C. Food Science

9. Horticulture (5E)
    A. Introduction to Horticulture Science
    B. Plant Anatomy and Physiology
    C. Plant Propagation
    D. Growing Media
    E. Integrated Pest Management
    F. Floriculture
    G. Nursery/Landscape
    H. Vegetable and Fruit Production
    I. Horticulture Business Management

10. Natural Resources and Environmental Sciences (NRES)
    A. Interrelationships Between NRES and Humans
    B. Scientific Principles Related to NRES and Humans
    C. NRES Management
    D. Outdoor Skills, Safety, and Ethics
    E. Outdoor Recreation
    F. Energy
    G. Waste Management

11. Plant Biology (5E)
    A. Plant Anatomy and Physiology
    B. Plant Reproduction
    C. Crop Management
    D. Agroecology

12. Physical Science Applications in Agriculture
    A. Scientific Investigations
    B. Physical Science Systems
    C. Food Science