

Agriculture

PROGRAM CONCENTRATION: Agriculture

COURSE TITLE: Exploring Agriculture Education (Seventh Grade)

COURSE DESCRIPTION:

Exploring Agricultural Education analyzes the different aspects of the agricultural industry. This course is designed to introduce students to the vast opportunities available in Agricultural Education. Students will be given the opportunity to learn how agriculture and agribusiness affects their daily lives. Students will also have the opportunity to participate in FFA activities.

Upon completion of this course students will be able to analyze different aspects of the agricultural industry and how it affects their daily lives. Students will have a working knowledge of Georgia agriculture, the National FFA Organization, and the significance of the agricultural education program. Students will be aware of the various career opportunities in agriscience, forestry and natural resources, and agricultural mechanics.

MSAGED7-1: Express the importance of agriculture in daily life.

- a) Identify products and byproducts from agriculture commodities.
- b) Describe and explain the impact of agriculture on daily life.
- c) Describe and demonstrate safe operation of agricultural lab equipment.
- d) Identify the sources of different types of food and fiber.

ACADEMIC STANDARDS:

S7CSI – Students will explore the importance of curiosity, honesty, openness, and skepticism in science and will exhibit these traits in their own efforts to understand how the world works.

SAMPLE TASKS:

- Ag from A to Z – List 1 item per letter that comes from agriculture
- Assign each student or group of students a crop and have students research byproducts that come from their crop
- CEV shop safety video

MSAGED7-2: Compare/contrast the importance of Georgia agriculture.

- a) Identify the top ten agricultural commodities and economic value.
- b) Demonstrate an understanding of agriculture in your local area.

- c) Summarize the importance of agriculture to Georgia's economy.

ACADEMIC STANDARDS:

M7P4 – Students will make connections among mathematical ideas and to other disciplines.

SAMPLE TASKS:

- Research GA's top crops
- Crop report
- Make a GA Ag fact brochure

MSAGED7-3: Demonstrate an understanding of the National FFA Organization.

- a) Explain the benefits of the FFA.
- b) Expand leadership goals, personal growth, and career success through agriculture education.
- c) Describe knowledge and skills needed for Career Development Event activities in the FFA.
- d) Design and carry out a Supervised Agricultural Experience Program based on career goals and industry needs for each individual.

ACADEMIC STANDARDS:

S7CS1 – Students will explore the importance of curiosity, honesty, openness, and skepticism in science and will exhibit these traits in their own efforts to understand how the world works.

SAMPLE TASKS:

- Cut and paste the different parts of the emblem together
- Do a scavenger hunt of the national FFA website

MSAGED7-4: Express an understanding of the area of agriscience.

- a) Explain how science is related to agriculture.
- b) Explain how technology is used in agriculture.
- c) Explain the three basic human needs and sources.

ACADEMIC STANDARDS:

S7CS2 – Students will use standard safety practices for all classroom laboratory and field investigations.

S7CS5 – Students will use the ideas of system, model, change, and scale in exploring scientific and technological matters.

M7P1 – Students will solve problems (using appropriate technology).

SAMPLE TASKS:

- Download “Science in Your Shopping Cart”
- Give students a historical agricultural production method and let them research or match it to the current replacement method (hand picked cotton in the past to modern machinery).
- Create a new agriculture invention or product.

MSAGED7-5: Build an understanding of the area of forestry & natural resources.

- a) Identify and explain the careers in forestry and natural resources.
- b) Identify and explain the function of wildlife and tree species in Georgia.
- c) Explain the interrelationship between animals and plants.
- d) Explain Georgia’s renewable and nonrenewable natural resources.

ACADEMIC STANDARDS:

S7CS4 – Students will use tools and instruments for observing, measuring, and manipulating equipment and materials in scientific activities.

S7L1 – Students will investigate the diversity of living organisms and how they can be compared scientifically.

S7L4 – Students will examine the dependence of organisms on one another and their environments.

SAMPLE TASKS:

- DNR - Guest speaker
- Poster of the life cycle
- Bottle Biology – Soil Decomposition Lab

- Make edible soil profile

MSAGED7-6: Critique the area of agricultural mechanics.

- a) Identify and explain the careers in agricultural mechanics.
- b) Specify and explain the mechanical skills used in agriculture.
- c) Describe and demonstrate safe operation of agricultural lab equipment.
- d) Identify and explain the function of basic hand tools.
- e) Demonstrate knowledge of measurement tools.

ACADEMIC STANDARDS:

S7CS2 – Students will use standard safety practices for all classroom laboratory and field investigations.

S7CS4 – Students will use tools and instruments for observing, measuring, and manipulating equipment and materials in scientific activities.

M7D1 – Students will pose questions, collect data, represent and analyze the data, and interpret results.

SAMPLE TASKS:

- Measure lab
- Plumbing activity on GA Ag Ed website middle school ag mechanics lessons
- Wood burning

READING STANDARD COMMENT:

After the elementary years, students are seriously engaged in reading for learning. This process sweeps across all disciplinary domains, extending even to the area of personal learning. Students encounter a variety of informational as well as fictional texts, and they experience text in all genres and modes of discourse. In the study of various disciplines of learning (language arts, mathematics, science, social studies), students must learn through reading the communities of discourse of each of those disciplines. Each subject has its own specific vocabulary, and for students to excel in all subjects, they must learn the specific vocabulary of those subject areas *in context*.

Beginning with the middle grade years, students begin to self-select reading materials based on personal interests established through classroom learning. Students become curious about science, mathematics, history, and literature as they form contexts for those subjects related to their personal and classroom experiences. As students explore academic areas

through reading, they develop favorite subjects and become confident in their verbal discourse about those subjects.

Reading across curriculum content develops both academic and personal interests in students. As students read, they develop both content and contextual vocabulary. They also build good habits for reading, researching, and learning. The Reading Across the Curriculum standard focuses on the academic and personal skills students acquire as they read in all areas of learning.

CTAEMRC-1: Students will enhance reading in all curriculum areas by:

- a. Reading in all curriculum areas.
 - Read a minimum of 25 grade-level appropriate books per year from a variety of subject disciplines and participate in discussions related to curricular learning in all areas.
 - Read both informational and fictional texts in a variety of genres and modes of discourse.
 - Read technical texts related to various subject areas.
- b. Discussing books.
 - Discuss messages and themes from books in all subject areas.
 - Respond to a variety of texts in multiple modes of discourse.
 - Relate messages and themes from one subject area to messages and themes in another area.
 - Evaluate the merit of texts in every subject discipline.
 - Examine author's purpose in writing.
 - Recognize the features of disciplinary texts.
- c. Building vocabulary knowledge.
 - Demonstrate an understanding of contextual vocabulary in various subjects.
 - Use content vocabulary in writing and speaking.
 - Explore understanding of new words found in subject area texts.
- d. Establishing context.
 - Explore life experiences related to subject area content.
 - Discuss in both writing and speaking how certain words are subject area related.
 - Determine strategies for finding content and contextual meaning for unknown words.

WRITING:

The student writes clear, coherent text. The writing shows consideration of the audience and purpose. The student progresses through the stages of the writing process (e.g., prewriting, drafting, revising, and editing successive versions).

CTAEW-1: The student demonstrates competence in a variety of genres.

The student produces technical writing (business correspondence: memoranda, emails, letters of inquiry, letters of complaint, instructions and procedures, lab reports, slide presentations) that:

- a) Creates or follows an organizing structure appropriate to purpose, audience, and context.
- b) Excludes extraneous and inappropriate information.
- c) Follows an organizational pattern appropriate to the type of composition.
- d) Applies rules of Standard English.

CTAEW-2: The student uses research and technology to support writing.

The student:

- a) Identifies topics, asks and evaluates questions, and develops ideas leading to inquiry, investigation, and research.
- b) Uses organizational features of electronic text (e.g., bulletin boards, databases, keyword searches, e-mail addresses) to locate relevant information.
- c) Includes researched information in different types of products (e.g., compositions, multimedia presentations, graphic organizers, projects, etc.).
- d) Uses appropriate structures to ensure coherence (e.g., transition elements).
- e) Supports statements and claims with anecdotes, descriptions, facts and statistics, and specific examples.
- f) Gives credit for both quoted and paraphrased information in a bibliography by using a consistent and sanctioned format and methodology for citations.

CTAEW-3: The student consistently uses the writing process to develop, revise, and evaluate writing.

The student:

- a) Plans and drafts independently and resourcefully.
- b) Uses strategies of note taking, outlining, and summarizing to impose structure on composition drafts.
- c) Edits writing to improve word choice after checking the precision of the vocabulary.

ENTREPRENEURSHIP:

MKT-EN-1: Understands concepts and processes associated with successful entrepreneurial performance.

- a) Define entrepreneurship.
- b) Identify and analyze characteristics of a successful entrepreneur.
- c) Identify the reasons for planning in entrepreneurial businesses.

- d) Discuss the entrepreneurial discovery processes.
- e) Assess global trends and opportunities.
- f) Determine opportunities for business creation.
- g) Generate ideas for business.
- h) Determine feasibility of ideas.
- i) Determine the major reasons for business failure.

ACADEMIC STANDARDS:

ELA8W1 – The student produces writing that establishes an appropriate organizational structure, sets a context and engages the reader, maintains a coherent focus throughout, and signals a satisfying closure.

ELA8W3 – The student uses research and technology to support writing.

SSEF6 – The student will explain how productivity, economic growth and future standards of living are influenced by investment in factories, machinery, new technology and the health, education and training of people.

SSEIN1 – The student will explain why individuals, businesses and governments trade goods and services.

MKT-EN-2: Explain the fundamental concepts of business ownership.

- a) Determine the relationship of competition to our private, free enterprise system.
- b) Explain the effects of competition on buyers and sellers.
- c) Identify the common types of business ownership.
- d) Compare and contrast the advantages and disadvantages of each type of ownership.
- e) Explain relevant government regulations relating to the operation of a business.
- f) Discuss the types of risks that businesses encounter.
- g) Explain how businesses deal with the various types of risks.
- h) Identify the market segment for the business.
- i) Formulate a marketing mix designed to reach a specific market segment.
- j) Utilize the marketing functions to determine the competitive advantage of the proposed business.

ACADEMIC STANDARDS:

ELA8W1 – The student produces writing that establishes an appropriate organizational structure, sets a context and engages the reader, maintains a coherent focus throughout, and signals a satisfying closure.

ELA8W3 – The student uses research and technology to support writing.

SSEF5 – The student will describe the roles of government in a market economy.

CTAE FOUNDATION SKILLS:

The Foundation Skills for Career, Technical and Agricultural Education (CTAE) are critical competencies that students pursuing any career pathway should exhibit to be successful. As core standards for all career pathways in all program concentrations, these skills link career, technical and agricultural education to the state’s academic performance standards.

The CTAE Foundation Skills are aligned to the foundation of the U.S. Department of Education’s 16 Career Clusters. Endorsed by the National Career Technical Education Foundation (NCTEF) and the National Association of State Directors of Career Technical Education Consortium (NASDCTEc), the foundation skills were developed from an analysis of all pathways in the sixteen occupational areas. These standards were identified and validated by a national advisory group of employers, secondary and postsecondary educators, labor associations, and other stakeholders. The Knowledge and Skills provide learners a broad foundation for managing lifelong learning and career transitions in a rapidly changing economy.

CTAE-FS-1 Technical Skills: Learners achieve technical content skills necessary to pursue the full range of careers for all pathways in the program concentration.

CTAE-FS-2 Academic Foundations: Learners achieve state academic standards at or above grade level.

CTAE-FS-3 Communications: Learners use various communication skills in expressing and interpreting information.

CTAE-FS-4 Problem Solving and Critical Thinking: Learners define and solve problems, and use problem-solving and improvement methods and tools.

CTAE-FS-5 Information Technology Applications: Learners use multiple information technology devices to access, organize, process, transmit, and communicate information.

CTAE-FS-6 Systems: Learners understand a variety of organizational structures and functions.

CTAE-FS-7 Safety, Health and Environment: Learners employ safety, health and environmental management systems in corporations and comprehend their importance to organizational performance and regulatory compliance.

CTAE-FS-8 Leadership and Teamwork: Learners apply leadership and teamwork skills in collaborating with others to accomplish organizational goals and objectives.

CTAE-FS-9 Ethics and Legal Responsibilities: Learners commit to work ethics, behavior, and legal responsibilities in the workplace.

CTAE-FS-10 Career Development: Learners plan and manage academic-career plans and employment relations.

CTAE-FS-11 Entrepreneurship: Learners demonstrate understanding of concepts, processes, and behaviors associated with successful entrepreneurial performance.