

FOLSOM CORDOVA UNIFIED SCHOOL DISTRICT



INTRODUCTION TO AGRICULTURE

Board Approval Date: June 20, 2019	Course Length: 2 Semesters
Grading: A-F	Credits: N/A
Proposed Grade Level(s): 8	Subject Area: Elective Elective Area (if applicable): Career Technical Education
Prerequisite(s): N/A	Corequisite(s): N/A
CTE Sector/Pathway: Agriculture and Natural Resources / Agriscience Pathway	
Intent to Pursue 'A-G' College Prep Status: No	
A-G Course Identifier:	
Graduation Requirement: No	
Course Intent: Program (if applicable):	

COURSE DESCRIPTION:

The course introduces students to the basic elements of Agriculture in California and throughout the world. Students will learn about plant science, animal science, agriculture business, ornamental horticulture, careers in agriculture and leadership. Students will be exposed to the many opportunities in FFA and develop leadership skills by participating in a middle school level chapter.

DETAILED UNITS OF INSTRUCTION:

Unit Number/Title	Unit Essential Questions	Examples of Formative Assessments	Examples of Summative Assessment
1. California Agriculture	What commodities are produced in California? What is the economic impact of commodities grown in California and what is it in relation to the federal and world impact?	*Students will participate in a jigsaw activity on California commodities. *As a group, students will be given a California region to research on the commodities/economic impact and then create a poster to share to the class.	*Students will be assigned a specific California commodity and will present a PowerPoint to the class.
2. What is Future Farmers of America (FFA)?	What is the role of the Future Farmers of America (FFA) and how does it relate to my future?	*Create a list of benefits of student leadership. *What is the Future Farmers of America (FFA)? *Identifying qualities of a leader. *Introduction to public speaking.	*Designing a "Why FFA" poster. *Creating a Plan for FFA Success. *Design a poster on "Who Influenced Me". *Delivering a three to five minute prepared talk.
3. SAE's (Supervised Agricultural Experiences)	What are Supervised Agriculture Experience (SAE) projects and how are they beneficial?	*What is a Supervised Agriculture Experience (SAE)? How to properly select a Supervised Agriculture Experience (SAE)?	*Designing a Supervised Agricultural Experience (SAE) plan.
4. Agriculture Experience Tracker (AET) Record Books	How do I track my Supervised Agricultural Experiences (SAE) project?	*Learning the ins and outs of record bookkeeping.	*Keeping track of a Supervised Agriculture Experience (SAE) project (writing business agreements, creating a budget, logging hours spent outside of the classroom in the Agriculture Experience Tracker (AET) record book.
5. Careers in Agriculture	What careers are associated with agriculture? What are the job requirements and	*Students will discuss comparing and contrasting a job vs a career.	*Students will be assessed on their career web guides and write an

	how do I fill out applications?	*Students will investigate careers and workforce opportunities in the industry sector.	Acrostic poem.
6. Understanding Scientific Method	What is the scientific method and how is it useful in agriculture? What is the purpose of the scientific method?	*Students will take notes on what is the scientific method, practice identifying variables, creating hypothesis, etc. *Students will participate in a group lab utilizing all parts of the scientific method.	*Students will design their own lab with a partner on the scientific method. Students will design, hypothesize, collect, analyze, and draw conclusions on the data collected. *Students will present their findings to the class.
7. Agriculture and the Environment	What are common issues related to Agriculture and the environment? What conservation and energy sources have been developed due to agriculture products?	*Students will take notes on natural resources found in agriculture. *Students will watch a short video defining the differences of sustainable agriculture. *Students will visit a school's agriculture facilities to evaluate what components need to be added or improved.	*Students will create a PowerPoint on a law or regulation based on California agriculture; once finished they will present to the class. *Students will be assessed on their group work, Agriculture Facility Evaluation worksheet and facility drawing.
8. Basic Animal Anatomy and Systems	What is an animal's external anatomy and what are the major functions of the vertebrate systems?	*Students will learn basic vocabulary on animal terminology and animal anatomy.	*Students will create models of both the monogastric and ruminant digestive systems. *They will place properly labeled flags on each part. *Students will take a taxonomy quiz.
9. Soil Science Principles	What are soil components and types? How does soil texture, structure, pH and salinity, water delivery and irrigation systems, soil amendments and fertilizers affect soils and plant growth?	*Introduction to soils (types, components, structures). *Soil ribbon testing. *Creating a soil map.	*NPK, pH Soil Lab. *Soil Composition Lab. *Soil Map Presentation.

10. Plant Growth and Development	What are the major structures, processes, and functions of plants?	*Plant anatomy, photosynthesis, and respiration terminology and diagramming. *Seed germination. *Fruits and fruit processing basics.	*Fruit Preservation and Processing Project. *Morning Jolt. Photosynthesis Lab Project.
11. Forestry and Natural Resources	What are the different types of forests and how do we properly manage the species of trees within each?	*Tree and Tool ID.	*Forestry Challenge Competition in class.
12. Integrated Pest Management	What are pests and how is integrated pest management utilized?	*Students will take notes on pests and pest management.	*Oral presentation of bug research. *Checking for understanding quiz. *PowerPoint presentation (project and time management skills).

ESSENTIAL STANDARDS:

C1.0 Evaluate the role of agriculture in the California economy.

C2.0 Examine the interrelationship between agriculture and the environment.

C3.0 Analyze the effects of technology on agriculture.

C4.0 Determine the importance of animals, the domestication of animals, and the role of animals in modern society.

C5.0 Compare the structure and function of plants, animals, bacteria, and viruses.

C6.0 Explore animal anatomy and systems.

C8.0 Understand fundamental animal nutrition and feeding.

C9.0 Evaluate basic animal health.

C10.0 Explain soil science principles.

C11.0 Analyze plant growth and development.

C12.0 Understand fundamental pest management.

C13.0 Design agricultural experiments using the scientific method.

<https://www.cde.ca.gov/ci/ct/sf/documents/agnatural.pdf>

RELEVANT STANDARDS AND FRAMEWORKS, CONTENT/PROGRAM SPECIFIC STANDARDS:

Link to Common Core Standards (if applicable):

Educational standards describe what students should know and be able to do in each subject in each grade. In California, the State Board of Education decides on the standards for all students, from kindergarten through high school.

<https://www.cde.ca.gov/be/st/ss/documents/finalesaccsstandards.pdf>

Link to Framework (if applicable):

Curriculum frameworks provide guidance for implementing the content standards adopted by the State Board of Education (SBE). Frameworks are developed by the Instructional Quality Commission, formerly known as the Curriculum Development and Supplemental Materials Commission, which also reviews and recommends textbooks and other instructional materials to be adopted by the SBE.

Link to Subject Area Content Standards (if applicable):

Content standards were designed to encourage the highest achievement of every student, by defining the knowledge, concepts, and skills that students should acquire at each grade level.

<https://www.cde.ca.gov/ci/ct/sf/documents/agnatural.pdf>

Link to Program Content Area Standards (if applicable):

Program Content Area Standards applies to programs such as International Baccalaureate, Advanced Placement, Career and Technical Education, etc.

TEXTBOOKS AND RESOURCE MATERIALS:**Textbooks**

Board Approved	Pilot Completion Date (If applicable)	Textbook Title	Author(s)	Publisher	Edition	Date
Yes		<i>Exploring Agriscience</i>	Dr. Ray V. Herren	Cengage	5th	7/2/2018

Other Resource Materials

FFA Manual

FFA Handbook

Teacher recommended resource materials

Supplemental Materials

Board approved supplemental materials (Including but not limited to: Film Clips, Digital Resources, Supplemental texts, DVDs, software programs (Pebble Creek, DBQ, etc.)

The Folsom Cordova Unified School District prohibits discrimination, intimidation, harassment (including sexual harassment) or bullying based on a person's actual or perceived ancestry, color, disability, race or ethnicity, religion, gender, gender identity or gender expression, immigration status, national origin, sex, sexual orientation, or association with a person or group with one or more of these actual or perceived characteristics. **For concerns/questions or complaints, contact the Title IX Coordinator(s) and Equity Compliance Officer(s): Curtis Wilson, cmwilson@fcusd.org (grades K-5) and Jim Huber, ED. D., jhuber@fcusd.org (grades 6-12), 1965 Birkmont Drive, Rancho Cordova, CA 96742, 916-294-9000 ext.104625**