



Fayette County Extension

140 Stonewall Avenue, Suite 209 • Fayetteville, GA 30214

ugaextension.com/Fayette/4h

uge2113@uga.edu • 770-305-5412 Phone • 770-305-5217 Fax

4-H School Enrichment Program

Fayette County 4-H is partnering with Fayette County schools to enrich the classroom experience by offering hands-on science lessons. Lessons are taught by University of Georgia 4-H staff and meet Georgia Performance Standards.

Monthly Enrichment Programs last approximately one hour and are accompanied by developing leadership skills, public speaking opportunities, and community service. Each meeting is led by peer elected officers and includes student presentations and a science lesson taught by our 4-H staff. See *Project Achievement Experience (Student Presentations)* below for a correlation of this component to the Georgia Standards of Excellence.

Science Curriculum Lesson Descriptions:

Intro to 4-H

Description:

Students gain an overview of the 4-H programs and lessons for the year. They also elect class officers.

Microorganisms-Mean, Miserable, Menacing Microbes

Description:

Students will be introduced to microorganisms through a simulation of how germs spread, making a real life connection with how easily microorganisms can be transferred. Students will also discover the harmful effects of microorganisms if proper hand-washing techniques and food preparation are not followed.

Standards: S5L4 Students will relate how microorganisms benefit or harm larger organisms.

Plant Classification

Description:

By classifying plants based on category, leaf type, leaf arrangement, and leaf shape, this lesson reinforces the concept of classifying using like characteristics. Students will be engaged in a hands-on experience to identify Georgia tree species by using a dichotomous key.

Standards: S5L1 Students will classify organisms into groups and relate how they determined the groups with how and why scientist uses classification.

georgia4h.org

Inherited Traits

Description:

Using Punnett squares, students predict offspring of a cross between two parent plants using basic Mendelian inheritance. Students will understand trait expression and transfer of traits from a parent organism.

Standards: S5L2 Students will recognize that offspring can resemble parents in inherited traits and learned behaviors.

Physical and Chemical Changes

Description:

In this lesson, students perform 4 tests, recognizing characteristics of physical or chemical changes to determine what type of change each test undergoes. They practice following instructions and recording basic scientific observations.

Standards: S5P2 Students will explain the difference between a physical change and a chemical change.

Poison Pump

Description:

A killer has swept through the streets of London; hundreds are dead! Would you believe that an accomplice to this terrible crime is something you use every day? Through a series of clues, students solve a mystery to discover that water can also produce negative effects for people. Students should analyze and interpret data (clues), leading them to understand that water is a shared resource and can spread diseases.

Standards: S5CS1 Students will be aware of 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.

Georgia Barrier Islands

Description:

Students will examine the dynamics of barrier islands and locate the barrier islands of Georgia. Causes of erosion will be discussed as well as natural systems which help barrier islands adjust to natural forces. A demonstration illustrates the effectiveness of sand dunes at preventing erosion.

Standards: S5E1 Students will identify surface features of the Earth caused by constructive and destructive processes.

Project Achievement Experience (Student Presentations)

Description:

Students present a four to five minute demonstration, or illustrated speech, on the topic of their choice. Each student chooses a subject, conducts research, composes a speech, and presents in front of their class. They also create a poster as a visual aid to their speech.

Standards: **ELAGSE5W2:** Write informative/explanatory texts to examine a topic and convey ideas and information clearly.

ELAGSE5W7: Conduct short research projects that use several sources to build knowledge through investigation of different aspects of a topic.

ELAGSE5SL2: Summarize a written text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.

ELAGSE5SL4: Report on a topic or text or present an opinion, sequencing ideas logically and using appropriate facts and relevant, descriptive details to support main ideas or themes; speak clearly at any understandable pace.

Contact: Fayette County 4-H Staff: 770-305-5412 x.7 uge2113@uga.edu

April McDaniel, 4-H Agent- aprilnas@uga.edu

Sara Kahley, 4-H Program Assistant- kahleysi@uga.edu

4-H helps young people experience: An increased desire to make a difference in their communities - High levels of leadership, self esteem, public speaking, communication and planning skills - Improved School Performance - Motivation to help others - Overall improvement in civic identity and civic engagement.

georgia4h.org