

Simple Circuit

Fourth Grade

Activity: 19

Time: 1 Class Period

General Description

Students will demonstrate and create a simple circuit using provided materials.

Objectives

Students will create a simple circuit.

Arizona State Standards

SC04 S5C3 PO1 Demonstrate that electricity flowing in circuits can produce light, heat, sound, and magnetic effects

SC04 S5C3 PO2 Construct series and parallel electric circuits

SC04 S1C2 PO1 Demonstrate safe behavior and appropriate procedures (e.g., use and care of technology, materials, organisms) in all science inquiry

SC04 S2C1 PO2 Describe the interaction of components in a system (e.g., flashlight, radio)

SC04 S3 C2 PO1 Describe how science and technology (e.g., computers, air conditioning, medicine) have improved the lives of many people

W04 S3C2 PO1 Record information (e.g. observation, notes, lists, charts, map labels, and legends) related to the topic

Teacher Information

Simple materials can be used to create a series circuit, one of the two types of circuits students need to make. A series circuit will light all the bulbs in a line. A parallel circuit is a circuit in which one light can be off while another is on.

A bulb in a holder is preferred; however a small bulb also can be used without the holder. If this is the case the student should not handle the light bulb.

Materials

C or D battery

Two wires with alligator clips on each end

One light bulb

One light bulb holder

Science Notebook

Poster Boards

Procedures/Exploration

1. The students should be allowed to experiment and explore the materials.
2. Tell the students that it is their job to make the light bulb light.
3. Students should record what they try and what works and what does not.
4. As the students work circulate around the room asking the students questions about what is working and what is not.
5. Have the students write out how they made the light bulb light and illustrate it.
6. Have students share whole group what worked in their group.
7. Taking a correct student illustration use it to accurately label the parts of a circuit.
(load=light bulb, wire=conductor, energy source=battery)
8. Give the students materials to see if they can make more than one light bulb light at the same time.