

# Give Me Some Static

Fourth Grade

Activity: 16

Time: 1 Class Period

## General Description

Students will be given an opportunity to play with static electricity and investigate what kind of energy it is and what it is capable of doing. Students will understand how static electricity is a natural force.

## Objectives

Students will demonstrate that static electricity has the ability to attract and repel objects.  
Students will relate static electricity to their everyday life.

## Arizona State Standards

SC04 S1 C4 PO1 Communicate verbally or in writing the results of an inquiry

SC04 S5 C3 PO1 Demonstrate that electricity flowing in circuits can produce light, heat, sound, and magnetic effects

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

## Teacher Information

Static electricity is an important concept to introduce to students, it helps them to understand that electricity is a naturally occurring phenomena. Students have often experienced static electricity without really knowing what is happening. Giving students the opportunity to investigate what is happening will increase their understanding of the natural world.

## Materials

Balloons

Different types of Fabric

Water (running slowly from a faucet)

String

Styrofoam peanuts

Aluminum foil

Paper from a hole punch

## Teacher Preparation

1. Divide students into groups
2. Give students the balloons and fabric
3. Ask students to see if they can pick up the paper without touching it
4. Have students share how they picked up the paper, what worked best.

## **Procedures/Exploration**

1. The students will perform the following experiment: rub a balloon on a piece of fabric of their choosing.
2. Hold the balloon close to a slow trickle of running water: The students will write down their observations in their science notebooks.
3. Using the paper holes from a hole punch again rub the balloon with a piece of fabric
4. Hold the balloon about four inches away from the paper after rubbing it on a sweater. Record the observations in a science notebook.
5. Have the students tie two balloons together using a second balloon.
6. Rub both balloons with the same fabric; hold them by the center of the string, record observations.
7. Put the Styrofoam peanuts between the balloons. Record your observations.
8. Rub the balloons with the different fabric; hold them by the center of the string, record observations.
9. Put the Styrofoam peanuts between the balloons. Record your observations.
10. Provide students the time to discuss what they have discovered about static electricity.
11. Ask students to explain why when clothes come out of the dryer they sometimes have static and record their answers in their science notebook.