Insulators and Conductors

Download Full Lesson Plan
(Full teacher resource documents are included)

Lesson Focus

Demonstrating the concept of conducting or insulating electricity. Note: This lesson plan is designed for classroom use only, with supervision by a teacher familiar with electrical and electronic concepts.

Lesson Synopsis

The Insulators and Conductors activity encourages students to test different classroom materials to determine if they are conductors or insulators of electricity. Students work in teams testing their predictions about each material, then groups compare results and discuss findings.

Age Levels: 8-11

Objectives

- Learn about the electrical properties of different materials.
- Learn how conductors and insulators react to electric current.
- Solve simple algebraic manipulations involving squares and square roots.
- Learn to make predictions and draw conclusions.
- Learn about teamwork and working in groups.

Anticipated Learner Outcomes

As a result of this activity, students should develop an understanding of:

- electrical properties

- conductors and insulators
- circuits and current
- making and testing predictions
- teamwork

Lesson Activities

Students test a variety of materials in a circuit to determine whether each item behaves as an insulator or a conductor. Students make predictions about each item and discuss the results in teams and as a class. Student teams also construct their own circuit tester using wires, batteries, and a bulb.

Resources/Materials

- Teacher Resource Documents (attached)
- Student Worksheet (attached)
- Student Resource Sheet (attached)

Alignment to Curriculum Frameworks

Curriculum alignment sheet is included in PDF.

Take Survey