

# What Is Electrical Energy?

## Lesson Plan

**Overview:** This is an introductory lesson for students who have little knowledge about electricity. The lesson identifies common items that use electrical energy. Following this lesson, young students will be more aware of when they are engaged in an activity that uses electricity.

**Objective:** The objective of this lesson is to introduce the concept of what energy is, and the items that use electrical energy, to prepare them to save electrical energy.

**Subjects:** Earth Science, Physical Science

**Suggested Grade Level:** Elementary

**Time:**

Kindergarten: 20 minutes with pre-cut pictures

Grades 1-3: 30-40 minutes

**Materials:**

11. x 18. construction paper

Discarded magazines

Scissors

Glue sticks

Pencils

Prepared pictures for instruction (see below)

Cut picture file of items that use and do not use electricity (optional)

**Preparation and Background:**

Prepare the following pictures from the internet or magazines:

**Things that use electrical energy:** television, hand held game i.e. Xbox, toaster, microwave, computer, cell phone, vacuum cleaner, electric toothbrush, light fixture.

**Things that do not use electrical energy:** banana, book, drawings, materials, a bicycle, teddy bear, toy cars, building blocks, puzzle, board game, baseball game.

**Procedure:**

**Anticipatory Set**

You may have heard people talk about saving energy. Our school handed out free lights to replace older kinds of light bulbs to help save energy. Perhaps you have heard commercials on television about saving energy. In order to save energy, you must first know which things use energy. Today we will discover which things use energy and which ones don't.

**Introduction**

Today we will learn about items that use energy to work. Energy is usable power made from natural resources that come from the earth. Natural resources are oil, gas, wood, wind or water that is used to create power. This power usually comes to us in the form of electricity.

**Modeling**

1. Show the students five of the prepared pictures of things that use electrical energy to work or function. As each picture is presented say, "this is a \_\_\_\_, it uses energy."

2. Show the students five of the prepared pictures of things that do not use energy to work or function. As each picture is presented say, "this is a \_\_\_\_, it does not use energy to work or function."

3. Mix the prepared pictures that have not been shown yet. Show them one at a time stating they do or do not use energy to work or function.

## **Application**

1. Give the students each a piece of construction paper. Lead them to fold it in half using a hamburger fold. Place it on their desk with the long side toward them.
  2. Write "energy" or "no energy" at the top of the page on each side of the fold. Or print the captions and have the students glue one caption on each side.
  3. Have the students look through old magazines and cut out items that use or do not use energy.
  4. Glue the items on the construction paper on the appropriate side of the page.
- Conclusion

5. Have each student share their pictures with the class explaining which items use energy and which ones do not. After sharing, lead a discussion about what the students learned. Ask them to name items at home that use energy to work or function.

## **For Discussion:**

Lead the class in a discussion about ways we use energy when we don't need to. Lead the discussion to areas such as leaving the television on when no one is in the room, leaving bedroom lights on all day, etc. Have each student decide on one thing they could do to stop using energy when they don't need to.

## **Extension:**

Vocabulary: bulb, light, power, electricity

Prepare pictures on a 4 x 6 card of a CFL and an incandescent light bulb. Prepare a picture of an electric generating plant. Show the cards, or give to the ELA students, while the other students are cutting and pasting pictures. If desired, have the students find items in a magazine that use energy. Provide the students with the names of the items on their page. Have them share their page and name three of the items.