

## The Smart Energy Hub

We are pleased you'll be participating in the ComEd Smart Energy Hub program! The following activities are suggestions to provide background knowledge and prepare students for the upcoming field trip.

## Before the Trip: Activate Knowledge

Ask students to think about the last time they saw a bolt of lightning during a thunderstorm. How did they feel during the storm? Choose a few students to share their thoughts.

Explain that a lightning bolt is a huge surge of electricity between the sky and the ground. Electricity is a form of energy, and it is very powerful. Then demonstrate the power of static electricity to make objects move.



TRY IT!

### Static Electricity Demonstration

Materials: O-shaped dry cereal (Cheerios) Balloon Thread Tape

#### Procedure:

Tie a piece of dry cereal to the end of a long piece of thread. Tape the other end of the thread to the table. Next take the inflated balloon and either rub it over your hair or on a piece of wool. Bring the balloon close to the cereal and watch as the cereal moves towards the balloon.

Discuss that electricity is used to run the refrigerator or power the computer in our homes. Ask students to name some other items in their homes or at school that use electricity.

Then allow students time to complete the **Using Electricity** activity sheet.

Inform students that they will be visiting the ComEd Chicago Training Center where the men and women who help to bring us electricity train to do their job safely. Discuss that electricity is very powerful, like a lightning bolt, and if it is not handled carefully it could hurt the person working with it. Therefore, overhead electricians go to school to learn how to work with electricity just like the students go to school to learn to read and write.





Introduce vocabulary that students will hear during the field trip by discussing each word below.

**Energy** is the ability to do work. You use energy when you play, use a computer, or cook food.

**Electricity** is a form of energy used to power things like televisions, light bulbs, and computers.

A **meter** measures the amount of electricity we use and when the electricity was used.

**Power lines** are wires that carry electricity from the power plant to homes and businesses. They can be in the ground or held up over our heads by poles.

An **overhead electrician** is someone who sets up or fixes power lines.



Name
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Date \_\_\_\_\_

# **Using Electricity**



- Draw a picture showing one or two ways you use electricity.
- Then, write how you could use less electricity.

How I use electricity:

How I can use less electricity:

