

# Electricity safety

## Duration

60 minutes

## Lesson overview

Students examine objects that plug in to begin thinking about ways we use electricity in our daily lives. Students then go outside into the school community on a scavenger hunt, looking for signs of electricity before exploring important electricity safety rules to keep safe.

## Objectives

Students will be able to:

- describe ways electricity is used in their daily lives
- identify electrical equipment around their school and in the local community
- recognize the FortisBC electrical hazard warning sign
- explain ways to keep safe around electricity

## Curriculum connections - Physical and Health Education

### Big idea

- adopting healthy personal practices and safety strategies protects ourselves and others

### Content

- strategies and skills to use in potentially hazardous, unsafe, or abusive situations

### Curricular competencies

- identify and describe avoidance or assertiveness strategies to use in unsafe and/or uncomfortable situations

## Curriculum connections - English Language Arts

### Big idea

- through listening and speaking, we connect with others and share our world

### Content

- oral language strategies

### Curricular competencies

- engage actively as listeners, viewers, and readers, as appropriate, to develop understanding of self, identity, and community
- exchange ideas and perspectives to build shared understanding



## What you will need

- Electricity Safety Backgrounder
- a set of household electronics
- Electricity in our Community Scavenger Hunt
- Tips for Leading the Scavenger Hunt
- a class set of clipboards and pencils
- computer, projector and screen
- Electricity Safety Slideshow
- Electricity Safety Slideshow Notes
- Electricity Safety Poster to take home

## Preparation

- Download the Electricity Safety Slideshow.
- Review Electricity Safety Backgrounder, Electricity in our Community Scavenger Hunt, Tips for Leading the Scavenger Hunt, Electricity Safety Slideshow and Notes.
- Gather a set of electronics (that plug in) to use in activity 1.
- Print a class set of the scavenger hunt and Electricity Safety Poster.
- Organize clipboards and pencils to use for the scavenger hunt.
- Set up computer, projector and screen to present the slideshow.
- Organize students for small group work in activity 1. Each group will need to sit around a table.

## Lesson notes

It's important students explore electricity in their real lives before they think about ways to be safe around it. Activity 1 provides an opportunity for students to connect familiar household objects with electricity while activity 2 allows them to relate electricity to the real world and their school community (place-based learning). Students will see evidence of electricity (power lines, poles, electrical boxes etc.) around their school grounds. This is useful before they can begin to think of ways to protect themselves in the home and community environment.

## Word list

community	safety	electricity	sign
electronics	substation	hazard	transformer boxes
outlet	warning	power lines	



## Lesson activities

### Activity 1: Ways we use electricity (15 minutes)

- Provide each group with one object that uses electricity.
- Allow time for groups to freely explore the object using their senses and to talk about it before directing the discussion.
- Circulate around the room and ask key questions to help the students make links between their object and electricity. Questions could include:
  - What is it?
  - What is it used for?
  - Where is it found in the home?
  - How does it work?
  - What is it powered by?
- Conclude the activity by asking one student from each group to come to the front and to share their object with the rest of the class.

### Activity 2: Scavenger hunt (25 minutes)

- Take students outside onto the school grounds and around the local community to look for signs of electricity and electrical equipment.
- Have students check off what they see on their scavenger hunt sheets.
- Return to class and lead a quick discussion of where students saw the different scavenger hunt items.

### Activity 3: Be safe around electricity (20 minutes)

- Present the Electricity Safety Slideshow to the students using the slideshow notes.
- Have students point out electrical equipment they recognize from the scavenger hunt.
- Have students recap the electrical safety rules at the end of the slideshow.
- Hand out Electricity Safety Posters for students to take home at the end of the day.

## Assessment

- During activity 1, listen to the students' conversations about their electrical object to see if they can describe how the object is used and how it connects to electricity.
- Observe and note students' responses during the scavenger hunt to assess their familiarity with electrical equipment in the street (familiar with seeing it rather than having to correctly name what they see).
- At the end of the slideshow (activity 3) see if the students can recap some of the electrical safety hazards and safety strategies seen and discussed during the slideshow.

## Extensions

- Ask students to look for signs of electricity on their way home from school and around their neighbourhoods. Invite them to share what they've noticed over the next few days.
- Talk about electricity safety rules in the days and weeks following the lesson.



## Definitions

**community:** a group of people living in the same place such as the area around a school

**electricity:** a form of energy used to power many devices, appliances and equipment

**electronics:** appliances or devices that need electricity to function; electronics need to be plugged into an outlet or have a battery that can be charged by electricity

**hazard:** something that can be a danger or risk to personal safety

**outlet:** where an electrical device is plugged into a wall to connect to the electricity in the building

**power lines:** wires electricity flows through, connecting homes and buildings to electricity

**safety:** the actions or behaviours that reduce the risk of danger or injury to oneself and/or others

**sign:** something that tells us information, such as a warning to keep away from something dangerous

**substation:** part of the transmission system where transformers lower the voltage (power) of electricity before sending it to homes and businesses

**transformer boxes:** steel boxes located at street level housing electrical transformers connecting to underground lines carrying electricity

**warning:** a sound, verbal command, announcement or sign that tells a person there is danger

