



## Junior Lesson Plan 1 – Electricity in Our Environment

### Objectives

1. Understand what electricity is
2. Identify some appliances that use electricity
3. Become aware of the uses of electricity and learn that electricity can be dangerous unless we stay safe and stay clear
4. Explore the effects of static electricity – 1st & 2nd Class only

### Introduction

#### What is electricity?

Electricity is a type of energy that gives items the power to work. It flows along wires and can even flow through the air. We all use electricity every day, whether it is turning on the lights in our house, playing our favourite video game, or blow drying our hair.

Pick up a pencil and ask children to explain to you how it works. Point out items in the classroom that use electricity and ask children how they work, for example the light switch, computer or interactive whiteboard.

#### Dangers of electricity

Electricity is not something that we play with, it can be very dangerous. We should never try to put our fingers or anything else into the sockets in our house. We should always switch off appliances when we are finished with them. Children should always ask an adult to plug out the phone & ipad chargers after using them.

#### Resources

Post-it notes, pencils, paper, clipboards and balloon(s) for 1st & 2nd Class.

#### Whole Class Activity

Explain that many items in the classroom, such as the lights and computers, work using electricity. Some of them get their electricity from batteries while others are plugged into the electricity supply.

Write 'E' on post-it notes and select children to stick them near some electrical appliances around the classroom.

#### Group Activity

Go on an electrical appliance trail around the school, using clipboards and pencils and stopping at various points around the school to draw their findings. Children return to the classroom and record findings.

#### Extension Activity for 1st & 2nd Class

Electricity can either build up in one place (static electricity) or flow from one place to another along wires or cables (current electricity).

Explore the effects of static electricity using balloons

- Tear a piece of paper into tiny squares and place on a flat surface
- Rub the balloon vigorously on hair or a woollen jumper
- Hold charged balloon over pieces of paper and it should suck them up to stick to the balloon

Explain to the class that this is caused by static electricity. When people have a build up of static electricity, they frequently get a 'shock' when they touch something metal. This is because electricity wants to go into the ground, or earth. An example is getting a shock when touching off the handle of a car door.

#### Whole Class Activity

Recap with class what electricity is, what appliances in the school use electricity and, that electricity can be very dangerous.

Download additional activity sheets from [www.esbnetworks.ie/education](http://www.esbnetworks.ie/education)

#### Useful websites

[www.esbnetworks.ie/education](http://www.esbnetworks.ie/education)

[www.askaboutireland.ie/learning-zone/primary-students/infants/science/energy-and-forces/electricity](http://www.askaboutireland.ie/learning-zone/primary-students/infants/science/energy-and-forces/electricity)