



Schools Battery Recycling Challenge

SENIOR LESSON PLAN

Curriculum Links:

- **SPHE** (Myself and the Wider World)
- **Geography** (Environmental Awareness and Care)
- **Science** (Environmental Awareness and Care)
- **Sustainability Development Goals Learning**

Learning Objectives

- Identify the ways in which we use batteries in everyday life
- Understand the importance of recycling waste batteries
- Understand the difference between electrical and electronic waste
- Realise that there is a personal responsibility for taking care of the environment
- Identify, discuss and implement simple strategies to address the issue of waste batteries, electrical and electronic items

Materials Required

- Paper, pencils, a timer.

Introduction

Inform pupils that you are going to discuss battery, electrical and electronic waste recycling in this lesson. Elicit pupils' knowledge about the following points, recording ideas on the board using a concept map:

- The function of batteries
- Rechargeable batteries (batteries which can be used more than once)
- Everyday items which use batteries for power e.g. remote control, torch
- Everyday items which use mains electricity for power e.g. a lamp, a television

Write the words '**Electrical equipment**' and '**Electronic equipment**' on the board. As a class, ask pupils to discuss what the difference is between both terms. Explain that:

Electrical equipment uses electricity by transforming it to another form of energy like light or heat, for example; lighting an LED bulb or heating bread using a toaster.

Electronic equipment uses electricity by converting it and manipulating it to do complex operations, for example; laptops manipulate electricity to carry out a range of complex operations so that users can listen to music, type and watch videos.

Activity 1: Pair Work

Ask pupils working in pairs to think, share and write a list for (1) electrical and (2) electronic devices at home and in school. Then discuss as a class.



Recycle waste batteries to protect our environment and support LauraLynn, Ireland's Children's Hospice.

LauraLynn Ireland's Children's Hospice. Registered Charity Number 20154844.





Activity 2: Whole Class - Discussion

As a class, discuss pupils' experience with the disposal of waste batteries, for example:

- Have batteries been disposed of in the rubbish bin?
- Have batteries been recycled?
- Where have batteries been recycled? The local electrical shop/ a local store?
- Have rechargeable batteries been used by pupils?

Ask pupils why it is important to recycle batteries. Inform pupils of the following key points:

1. Most batteries are put into rubbish bins and taken to landfill sites.
2. Batteries can contain dangerous chemicals like lead, zinc, lithium and mercury.
3. When batteries are left in landfill sites the chemicals can leak into the ground. This is bad for the environment as it can cause soil and water pollution. This can be dangerous for animals and humans.
4. Recycling waste batteries is a great way to help the environment.
5. Each waste battery recycled is taken apart and the materials are used to make something new like new batteries and bicycles.

***Fast Fact - Each year we throw away about 44 million batteries. Laid back to back they would reach from Dublin to Cork and back again over 4 times.**

Write the acronym (WEEE) on the board, explaining that WEEE means 'Waste Electrical and Electronic Equipment' and that WEEE Ireland organises the recycling of batteries.

Inform pupils that to recycle their batteries all they have to do is:

1. Collect all waste batteries at home.
2. Bring them to school & place into the WEEE Ireland Blue Battery Box.
3. Waste batteries can then be returned for recycling at any shop that sells batteries or electrical goods, that has a WEEE Ireland Blue Battery Box or to your nearest Local Authority Recycling Centre.
4. Or if your school has 10 full large 5 kilo sized Blue Battery Boxes you can log on to weeeireland.ie to arrange a free collection.

WEEE Ireland will then bring all the used batteries to the recycling factory.

Activity 3: Pair and Group Task - Against the Clock

Pair Task - Explain that as well as recycling batteries, WEEE helps us to recycle any waste electrical and electronic items from home. Inform pupils that **it's important to recycle all small electrical and electronic waste when it is old or broken**, for example; toasters, toys with batteries, torches and hairdryers.

Tell pupils you are going to play a game, working in pairs. The aim of the game is for pupils to list as many items as they can think of which use electricity, within a given time. There are 4 categories - **1) Toys, 2) Technology, and 3) Small Household Items 4) Large Household Appliances.**

- Teacher to set a timer to countdown 40 seconds for pupils, in pairs, to write/draw their list.
- Teacher to call aloud one of the topics listed above, for each game of 'Against the Clock'.
- Pupils to check how many items they could think of for each category.
- Discuss as a class, making a list on the board of items for each category.

(Teacher - visit www.weeeireland.ie/small-things-matter for a list of items.)

Group Task - Divide the class into 4 groups. Assign each group one of the categories above, asking each to create a poster informing people about items which can be recycled. Display posters in the school.

Activity to Close: Individual Task - WEEE Ireland Battery Recycling Challenge

Inform pupils that each year **European Battery Recycling Week takes place in September and International E-Waste Day takes place in October.**

Ask pupils to write down their goals to recycle in their copy books and how they will achieve them to help the environment by recycling batteries and small electrical and electronic waste, for example:

*'I will collect and recycle 10 waste batteries'
'I will remind my family to recycle anything with a plug or battery at home when they have reached the end of their useful life'
'I will fill one my battery box'*

Visit weeeireland.ie/battery-recycling-challenge for more free resources, activities and details of our **Schools Battery Recycling Competition** - where pupils have the chance to win a prize for their class / school by recycling waste batteries!