



Schools Battery Recycling Challenge

POST PRIMARY LESSON PLAN

Curriculum Links:

- **Geography** (Sustainability)
- **Science** (Sustainability)
- **Sustainability Development Goals Learning**

Learning Objectives

- Recognise how personal decisions and actions can impact on the environment
- Understand how humans can contribute to sustainability through the recycling of batteries, electrical and electronic waste
- Understand the difference between electrical and electronic waste
- Develop knowledge and skills to live more sustainably
- Reflect on current practices in relation to battery, electrical and electronic waste disposal and identify, discuss and implement simple strategies to address these issues

Materials Required

- Paper, pencils.

Introduction: Whole Class – Discussion

Introduce the concept of battery recycling by exploring students' personal experience of waste battery disposal. Use a concept map to record key points of discussion, for example:

- Have students recycled batteries? How?
- Where have they recycled – a local electrical retailer / a local store / a recycling centre?
- Have rechargeable batteries been used by students?
- What has encouraged them to recycle?
- How often have they recycled?

Ask students to discuss the impact of waste battery disposal on the environment using the following key points of information:

1. Batteries are used extensively in everyday life. National statistics estimate that 23 batteries per person are purchased in Ireland each year.
2. WEEE Ireland recycled the equivalent of 11 AA batteries per person in Ireland - this means that there are at least 12 more batteries per person still to be found and recycled.
3. Most batteries are put into rubbish bins and taken to landfill sites.
4. Batteries can contain dangerous chemicals like lead, zinc, lithium and mercury.
5. When batteries are left in landfill sites these dangerous 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.
6. Each battery which is recycled is taken apart and the materials are used to make something new like new batteries and bicycles.



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.





***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.**

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

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 Center.**
4. **Or if your school has 10 full large size 5 kilo Blue Battery Boxes you can log on to weeeireland.ie to arrange a free collection.**

WEEE Ireland then bring all the used batteries to the recycling factory!

Activity 1: Pair Task

Write the words '**Electric equipment**' and '**Electronic equipment**' on the board. Ask students to form pairs to discuss the difference between both terms. Once students have had a chance to explore this, discuss as a class, explaining 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.

In the same pairs, ask students to write a list for (1) electrical and (2) electronic devices they use at home and in school. Discuss as a class.

Write the acronym (WEEE) on the board, informing students that:

- WEEE means 'Waste Electrical and Electronic Equipment'.
- WEEE items are anything that has a plug or a battery and is at the end of its useful life.
- WEEE Ireland organises the recycling of batteries and waste electrical and electronic items from home.

- Recycling electrical waste benefits the environment by allowing plastics, metals and glass to be recovered for manufacturing.
- 15.5 million appliances were collected for recycling in 2017.
- Household electrical waste can be recycled in the local recycling centre or in the local electrical retailer.

Activity 2: Pair Task

Inform students that **it's important to recycle all small electrical and electronic waste when it is at the end of its useful life** for example; toasters, smart-phones, hair straighteners, torches and hairdryers.

Ask students to imagine they have to design a checklist to inform people in the local community about small electrical and electronic waste which can be recycled. Ask students in pairs, to consider the following categories and to write a checklist: 1) Household Items; 2) Toys & Technology; 3) Lighting; 4) Power tools; 5) Personal Care Appliances and 6) Large Household Appliances. Discuss and compile a class checklist.

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

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

Activity to Close: Individual Task - WEEE Battery Recycling Challenge

Inform students 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 through waste battery recycling and small electrical and electronic waste recycling.

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!**