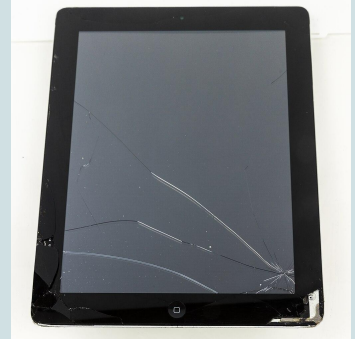
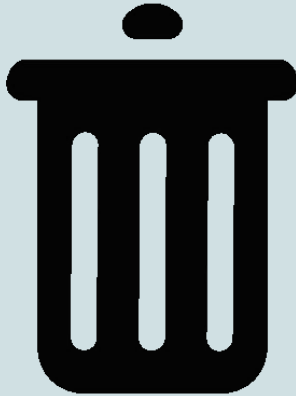


Engage in The Life (and Afterlife) of Batteries



Learning Intention

We are learning how batteries are used and disposed of in everyday life and begin to understand that improper battery disposal can create safety and environmental problems.

I know that I'm on track if I can...

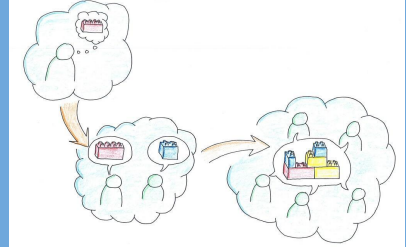
- describe how electronic devices are commonly used and thrown away in my daily life.**
- explain why throwing electronics in the trash might be a problem.**
- ask questions about what happens to electronics after they are thrown away.**
- identify why electronic disposal is connected to safety and environmental issues.**

Think, Pair, Share

Who has thrown a battery or old device away before?

What did you do?

Where did you put it?



Students think, pair, share for 3 minutes. After, do a whole group discussion for 10 minutes or so.

Record student answers visibly
Accept all responses
Avoid explaining consequences yet

What is E-Waste?



5- 15 minutes.

Ask Students:

What do you notice?"

"What surprises you?"

"What questions do you have?"

Record student answers visibly

Accept all responses

Avoid explaining consequences yet

E-waste has grown to record levels...



5-10 minutes

Optional: Read this with students and lead a group discussion.

<https://www.cnn.com/2024/03/20/climate/electronic-waste-recycling-climate-un>

UN says e-waste from trashed electric devices is piling up and recycling isn't keeping pace...

E-WASTE >

UN says e-waste from trashed electric devices is piling up and recycling isn't keeping pace

Just over 22% of the e-waste mass was properly collected and recycled in 2022. It is expected to decline to 20% by the end of the decade because of the 'staggering growth' of such waste due to higher consumption among other factors



5-10 minutes

Optional: Read this with students and lead a group discussion.

<https://english.elpais.com/climate/2024-03-20/un-says-e-waste-from-trashed-electric-devices-is-piling-up-and-recycling-isnt-keeping-pace.html>

E-Waste Statistics

Every year, the world generates \approx 50 million tons of e-waste.

Mobile phones + their batteries are among the fastest-growing contributors to e-waste.

Shockingly: about 80% of e-waste is *not* disposed of properly (i.e. it ends up in trash instead of recycling).

E-Waste is a Global Issue

Many electronic devices (phones, laptops, etc.) contain toxic materials: lead, mercury, arsenic, etc.

When thrown into landfills, these toxins can leach into soil, water, and plants. This can cause contamination to ecosystems, drinking water, and food supplies.

In many cases, e-waste ends up in informal recycling sites or scrap yards, where burning or manual dismantling releases harmful smoke, toxic dust, and heavy metals.

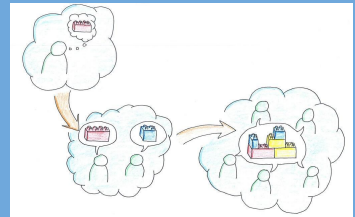
Essential Question

How do we dispose of batteries to prevent fires, injuries, and environmental harm?

Students write this question down in their The Life (and Afterlife) of Batteries Journal.

Think, Pair, Share

Why people might throw
used phones, old batteries,
or other electronic
devices in the
trash?



Students think, pair, share for 3 minutes. After, do a whole group discussion for 5-10 minutes or so.

Record student answers visibly
Accept all responses
Avoid explaining consequences yet

Exit Ticket

Respond to one of the prompts in your journal!

- *One thing I didn't know about e-waste is...*
- *One question I have about e-waste disposal is...*
- *One reason e-waste disposal might matter is...*

I know that I'm on track if I can...

- describe how electronic devices are commonly used and thrown away in my daily life.**
- explain why throwing electronics in the trash might be a problem.**
- ask questions about what happens to electronics after they are thrown away.**
- identify why electronic disposal is connected to safety and environmental issues.**

For more information...

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