

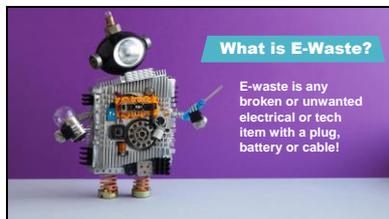
Slide 1



This assembly is all about e-waste – also known as tech and electrical waste.

*This template can be adapted to suit primary/ secondary students. Any copy in italics is presentation notes or for you to ask students.*

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**What is E-Waste?**

Waste is something that someone doesn't need or want anymore.

E-waste is basically anything with a plug, battery or cable that is unwanted or broken.

*Can you think of any examples of e-waste you might have at home? Do you have any unwanted electrical toys? Old mobile phones? Or a dreaded cable drawer?!*

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Tech plays a more important role in our lives today than ever.

It keeps us connected, fed, clean, healthy, educated, entertained, and productive.

However, replacing electricals and tech more often is creating a BIG waste problem.

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Unwanted electricals and tech is now the fastest growing waste stream in the world and in the UK\*.

*Do you know what happens to your electrical items when they are no longer wanted or are broken?*

\*Source:

<https://www.recycleyourelectricals.org.uk>

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Let's look at the issues caused by e-waste...

*Adapt/simplify the explanations below to suit audience. Individual slides for each problem follow, which can be used to explore each in more depth.*

#### **Hazardous waste**

Only by responsibly disposing of electricals can we stop the harmful substances they contain from polluting the natural environment.

#### **Lost resources**

Many electrical items contain valuable raw materials that could be reused – especially as some of them could soon be in short supply.

#### **Climate change**

Mining raw materials to produce new electricals and tech is much more resource and carbon intensive than recycling them.

#### **Loss to the economy**

If we don't recycle our e-waste we are literally throwing money in the bin!

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*Adapt to suit audience*

**Hazardous waste**

*Only by responsibly disposing of electricals can we stop the harmful substances they contain from polluting the natural environment.*

Some electricals like fridges and TVs contain hazardous chemicals that can be released into the environment if they are not recycled properly, putting humans, wildlife and habitats at risk.

Electronic items that are considered hazardous include: televisions and computer monitors that contain cathode ray tubes, LCD desktop monitors, LCD televisions, plasma televisions, portable DVD players with LCD screens.

Lead and mercury are toxic materials that can easily leach into the surrounding environment and have proven damaging effects on human and animal life. Other toxic elements with similar or worse effects found include cadmium, barium, lithium, polybrominated flame retardants.

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*Adapt to suit audience*

**Loss to the economy**

*If we don't recycle our e-waste we are literally throwing money in the bin!*

E-waste contains precious metals (like gold, silver and platinum) and valuable raw materials (like aluminium and steel) which are lost when we don't recycle them. Worldwide, precious metals lost in waste are estimated to be worth £10 billion, as only about £3 billion is currently recovered.

E-waste is a true 'urban mine', and in some respects even richer than traditional mining: for example, there is 100 times more gold in a tonne of smartphones than in a tonne of gold ore!

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*Adapt to suit audience*

**Lost resources**

*Many electrical items contain valuable raw materials that could be reused – especially as some of them could soon be in short supply.*

In the UK we discard 155,000 tonnes of electricals every year, instead of reusing or recycling them

Did you know, at least £7.9bn worth of gold, platinum and other precious metals are dumped **worldwide** every year?

The majority (over 75%) of material in unwanted electricals can be reused or recycled. If it goes to landfill it's just a waste!

For example:

Aluminium is a metal found in electronic items and can be recycled over and over again without losing any quality. Aluminium used in electronics today could be the same as aluminium used in the 1960s and earlier... 75% of all aluminium ever created is still in use today!

Recycled steel is all around us...Toasters, kettles, cookers, games consoles, computers, cars ...All these items and more use steel. And the great news is that steel is 100% recyclable.

There is enough steel in an iron to produce 13 baked bean cans! An old toaster could come back as a laptop!

**Did you know?** The metal from six million mobile phones and almost 72,000 tonnes of waste electronics was extracted to make around 5,000 gold, silver and bronze Olympic medals.

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*Adapt to suit audience*

**Climate change**

*Mining raw materials to produce new electricals and tech is much more resource and carbon intensive than recycling them.*

E-waste is contributing to climate change when it is not disposed of correctly - it makes much more environmental sense to recycle it!

**Did you know...** people are hiding 527 million unwanted electricals in UK homes - that's an average of 20 per household!

If we recycled all of these it would cut as much CO2 as taking 1.3 million cars off the road!

Source:

<https://www.recycleyourelectricals.org.uk/problems-with-e-waste>

1. Recycling our old unwanted electricals is an important way of reducing climate-changing emissions:

**Did you know...** gases released from discarded fridges and air-conditioning units worldwide was close to the national emissions of Belgium in 2019! (equivalent to 98m tonnes of atmospheric carbon dioxide)?

2. Recycling materials from electricals uses less energy than sourcing the new materials from scratch, for example mining.

**Did you know...** recycling 1 million laptops saves the energy equivalent to the electricity used by 3,657 homes in a year.

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**We're taking part in Waste Week to help tackle the problem of e-waste!**

So what can you do to help? Well you can fix your broken electricals or tech, you can pass them on, if they are still working or you can recycle them so they can become anything from life-saving equipment to children's playgrounds!

**FIX THEM!** Many organisations can repair and refurbish your small electricals. Your grownups can ask the original manufacturer for a list of their authorised repair networks.

**PASS THEM ON!** If nobody in your house wants it, pass it on. Charities can raise vital funds by selling your old electricals or giving them to people in need.

**RECYCLE THEM!** If it has a plug, battery or cable, it can be recycled.

Let's find out more...

*[Play video next slide]*

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**Play video**

Runtime 09:30

Or watch on YouTube: <https://youtu.be/nNx8J-trnI>

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*Can you guess how many tonnes of e-waste we produce in the UK each year? (It may help to use the example of 1 tonne = a small car)*

**THE ANSWER is...** In the UK, we throw away **155,000 tonnes** of electricals every year instead of reusing or recycling them.

**That's roughly every single home throwing 5 toasters in the bin every year. (5.5kg per household).**

Most of our e-waste comes from everyday items and small equipment, like cameras and vacuum cleaners.

**Did you know...** there is an estimated 527 million unwanted electricals in UK homes (that's 20 per household) collecting dust, when they could be recycled into something new! **This is why for Waste Week this year, our school is taking part in the HIDDEN TREASURE HUNT!**

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**We have an exciting and important mission for all of you!**

Seek out any 'hidden treasure' that being any broken or unwanted electrical items hidden in your homes  
You might have old mobile phones, a broken games console or a draw full of electric cables that aren't being used?

Complete the **Hidden Treasure Hunt worksheet** (your teacher will give you one to take home) to decide if the items should be FIXED, PASSED ON (to a local charity if they still work) or RECYCLED.

Then, if your family take the items that can be recycled to your nearest Currys store, between 17 March-14 April 2022 you will get a £5 discount voucher!  
Then all you need to do is ask your family to 'register your recycling' on the **Hidden Treasure Hunt website** ([www.hiddentreasurehunt.org](http://www.hiddentreasurehunt.org)) and our school will have the chance to win £5,000 of Microsoft tech vouchers!

You can see how well our school is doing on the School Totaliser on the **Hidden Treasure Hunt website**.

How brilliant is that!

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If we ALL take part, we can make a BIG difference to what happens to our e-waste.

*Happy Treasure Hunting.*