

Starting up

- How would you define electronic waste? What are some examples?
- What amount (in kilos) of electronic waste do you think is produced annually for every person in the world?
- What percentage of the world's electronic waste do you think is recycled?
- How well is electronic waste recycled in your country?

Reading

Disposing of electronic waste is a growing problem. To find out more, read the article and then do the exercise below.

Vocabulary

Match the words and phrases from the article in Column A with the definitions in Column B.

Column A

- 1 drop off
- 2 discarded
- 3 shredded
- 4 landfill
- 5 incinerated
- 6 hazardous
- 7 spilling
- 8 poisoning
- 9 contaminate
- 10 dumped
- 11 kerb
- 12 implement

Column B

- a a large hole in the ground where rubbish is buried
- b burned
- c the edge of the pavement next to the road
- d take something to a place on your way to somewhere else
- e accidentally flowing
- f make something work in practice
- g dangerous to people's health or safety
- h thrown away in a careless way
- i cut into very small pieces
- j adding a substance that can harm people
- k getting rid of something you no longer want or need
- l make something dangerous by adding a harmful substance

What happens to your old laptop? The growing problem of e-waste

Monday morning, and a set of tangled cables, a broken coffee machine and a single light is all there is inside the metal crates at Veolia, a noisy recycling depot where residents of the London borough of Southwark drop off broken or unwanted electrical devices.

The depot is gateway to a countrywide recycling process. Discarded items will either be passed on to charities for repair or shredded into parts and recycled, making their way back into the market as components in new electronic items.

Electronic waste — or e-waste is the fastest-growing element of the world's domestic waste stream. Some 50m metric tonnes will be produced annually this year — about 7kg for every person in the world. Just 20 per cent will be collected and recycled.

The rest is undocumented, meaning it likely ends up in landfill, incinerated, traded illegally or processed in a substandard way. That means hazardous substances spilling into the environment, poisoning the ground and people living nearby.

Heavy metals such as mercury, lead and cadmium — commonly found in LCD screens, refrigerators and air-conditioning units — as well as chemicals such as CFCs can contaminate soil, pollute water and enter the food chain.

These toxic substances mean that defunct electronics are designated hazardous waste by the EU.

The e-waste problem in the UK is particularly bad. The country produces 24.9kg a person a year — nearly 10kg more than the EU average, according to a recent report from the Environmental Audit Committee. In 2018, 1.2m tonnes of electrical devices were sold in the UK, and 500,000 tonnes made it to recycling centres.

Some appliances are more likely to be recycled than others. The recycling rate for big appliances, such as fridges and cookers, is about 80 per cent. That is because they are harder to dispose of and eventually get picked up, even when they are dumped by the kerb. Of small appliances, however, less than one in five makes it to the recycling centre.

Across the world, governments are trying different ways to reduce e-waste and limit the amount that ends up in landfill. For some time, EU countries have operated a one-for-one take-back system — which means that distributors need to take back, for free, an older version of any equipment they sell you. But since the rapid rise of online retailers, this has been harder to implement.

Most electronic waste that makes its way to the Southwark recycling centre is shipped off for more specialised treatment. Small televisions are sent to a plant in Bridgnorth, Shropshire, one of the UK's leading dedicated e-waste processing facilities. HDPE plastics — such as those found in plastic bottles — are sent to a Dagenham plant, metals to the main reprocessing metal mills and lightbulbs go to a facility that Veolia operates in Limay, outside Paris.



Reading comprehension

Based on the information in the article, find answers to the following questions.

- 1 Where is the recycling depot mentioned in the article?
- 2 What happens to electrical items that are taken to the Veolia recycling centre?
- 3 How much e-waste is produced worldwide each year?
- 4 How much is that per person in the world?
- 5 What percentage of e-waste is actually recycled?
- 6 What happens to e-waste when it is not collected and recycled?
- 7 What can happen if e-waste is dumped in landfill?
- 8 How much e-waste is produced annually per person in the UK?
- 9 What kind of electrical appliances are generally recycled and why?
- 10 What is the one-for-one take-back system?

Grammar – present simple and past simple passive

There are a lot of examples of the use of the passive in the article to describe steps in the recycling process of e-waste. Complete these sentences by using the passive form of the verb. Most examples are *present simple* passive but some are *past simple* passive.

- 1 At the Veolia recycling depot, discarded items _____ (pass on) to charities for repair or _____ (shred) into parts for recycling.
- 2 About 50 metric tonnes of e-waste _____ (produce) annually in the world.
- 3 Only 20 per cent of this e-waste _____ (recycle).
- 4 The other 80 per cent either ends up in landfill or it _____ (incinerate), _____ (trade illegally) or _____ (process) in a substandard way.
- 5 In 2018, 1.2 million tonnes of electrical devices _____ (sell) in the UK, but only 500,000 tonnes _____ (take) to recycling centres.
- 6 Of the e-waste that _____ (take) to the recycling centre in Southwark, televisions _____ (ship) to a plant in Shropshire, plastics _____ (send) to a plant in Dagenham and lightbulbs _____ (transfer) to a facility in France.

Discussion

- 1 Do you always recycle discarded electrical items? If so, how do you do it – by home collection or taking the items to a recycling centre?
- 2 Why do you think that some people do not bother to recycle electrical items, even when the facilities are available?
- 3 What could be done to increase the rate of recycling e-waste?
- 4 In addition to dealing with waste more effectively, it would be better to avoid waste completely. This is the aim of Repair Cafes, where you can take electrical appliances to be repaired for free. Repair Cafes have grown into a big movement since they started in Amsterdam in 2009 (www.repaircafe.org/en/about). The aim is to reduce what is discarded.

Do they exist in your town or city? Have you visited one? What do you think of the concept?

ANSWER KEY**Vocabulary**

- 1 d
- 2 k
- 3 i
- 4 a
- 5 b
- 6 g
- 7 e
- 8 j
- 9 l
- 10 h
- 11 c
- 12 f

Reading comprehension

- 1 In the London borough of Southwark.
- 2 Items are either passed on to charities for repair or shredded into parts and recycled.
- 3 50 million metric tonnes.
- 4 About 7kg for every person in the world.
- 5 Just 20 per cent.
- 6 It ends up in landfill, or is incinerated, traded illegally or processed in a substandard way.
- 7 It can poison the ground and people living nearby.
- 8 24.9kg per year.
- 9 Big appliances such as fridges and cookers are most often recycled because they are harder to dump and eventually get picked up by the local council.
- 10 A system in the EU in which distributors need to take back, for free, an older version of any equipment they sell.

Grammar

- 1 are passed on ... are shredded
- 2 are produced
- 3 is recycled
- 4 is incinerated ... traded illegally ... processed
- 5 were sold ... were taken
- 6 is taken ... are shipped ... are sent ... are transferred

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