

# The recycling journey

How your plastic bottle is reborn

## 1 Collection

Your empty plastic bottle is collected and taken to a recycling facility for sorting. If you have already separated the plastic bottles from the rest of your recycling they can be sent straight to a recycling plant.

## 2 Separating

The recycling is hand-checked to remove any non-recyclable material. It is then loaded into a 'trommel', a large perforated spinning drum. Plastic bottles and cans are separated through the perforations, and then steel and aluminium cans are removed using magnets and electromagnetic technology.

## 3 Sorting

The bottles are then cleaned and sorted by type and colour using infrared beams. The infrared light is reflected off of the plastics in different ways, allowing a sensor to detect which is which. Precision jets of air then separate the different types.

## 4 Shredding and melting

Next the bottles are shredded by a machine and the shreds washed again to remove any impurities, including remnants of paper labels or the bottle's original contents. They may also be decontaminated further using a chemical solution. The shreds of plastic are then dried and melted down.

## 5 Flaking

The melted plastic is reformed into flakes or pellets as it cools. These can then be melted down again and used to make new products. For example, the melted plastic can be reshaped into new plastic bottles, ready to be filled with a product.

**275,000  
TONS**

Amount of plastic used in the UK per year

**500+  
YEARS**

How long plastic can take to decompose

