



## The Recycling Process

Recycling is vital in the race to build a sustainable world. Lots of things in the average household can be recycled from plastic milk bottles to aluminium cans. The whole process starts with rinsing them out and putting them into your recycling bin, but have you ever wondered what happens to those aluminium cans after that?

The first thing to remember is that any food waste can ruin a whole batch of recyclable material. Therefore, it's important to wash packaging out thoroughly before putting it into the recycling bin.

One of the best things about recycling is that it takes a lot less energy than creating a new can from scratch. New aluminium is made from a raw material called bauxite. Recycling aluminium only uses around 5% of the power and emissions needed to make new aluminium. That has a massive impact on the environment. It's not just aluminium, though, steel cans can be recycled as well. These metals can be recycled over and over - did you know that 75% of the aluminium ever made is still being used today?

After the recyclable material has been collected from your house, it is taken away to a materials recovery facility. Here, the materials are sorted into different types, to make sure that they are recycled correctly. Huge magnets are used to separate any steel from the aluminium (aluminium isn't magnetic) before the different types of metal are compressed into big blocks called bales.

The next stop for the bales of aluminium is a reprocessing plant. Here, the metal will go through four stages - shredding, decoating, melting and casting. During the shredding stage, the metal is shredded into tiny pieces. These are then decoated, which strips any colour or paint from the metal. The cleaned metal is then melted down at roughly 650°C before being recast into blocks called ingots. Each one of these ingots can be made into around 1.5 million cans.

In the UK, a company called Novelis runs the only plant in Europe that is entirely dedicated to recycling aluminium drinks cans. The whole plant is called a "closed-loop" because cans come in and are recycled into new cans ready to be filled. They are big enough to process every single drinks can sold in the UK for the foreseeable future. Currently, they recycle around 60 billion cans around the world every year. Almost 100% of aluminium cans that are used in Europe end up being recycled!

If the aluminium isn't recycled in a closed-loop system like the Novelis plant, then it can go on to become anything. Your old drinks might become part of somebody's car or a component on the next shuttle heading off into space. It might end up as a tiny part of a mobile phone or on the hull of a battleship. Whatever it becomes, the fact that it is has been recycled will continue to have a positive impact on the environment.





**1**

Using information from the text, tick one box in each row to show whether each statement is **true** or **false**.

	True	False
Aluminium is made from bauxite.		
It takes more energy to recycle aluminium than it does to make it new.		
Most of the aluminium ever made is still being used today.		
Aluminium sticks to magnets.		

\_\_\_\_\_   
 2 marks

**2**

How much power does recycling aluminium use compared to making new aluminium?

\_\_\_\_\_

\_\_\_\_\_   
 1 mark

**3**

Which stage follows the shredding process?

\_\_\_\_\_

\_\_\_\_\_   
 1 mark

**4**

a) What type of plant is the Novelis plant?

\_\_\_\_\_

\_\_\_\_\_   
 1 mark

b) What is different between Novelis and other plants? Use evidence from the text to say why these other plants are useful.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_   
 2 marks





**5**

Read the entire text.

Complete the table below with **one** piece of evidence from the text to support each statement.

	Evidence
People in Europe are good at recycling aluminium cans.	
Recycling aluminium means that we don't need to make as much new material.	

\_\_\_\_\_

2 marks

**6**

What can ruin a whole batch of recycling?

\_\_\_\_\_

\_\_\_\_\_

1 mark

# SATs Practice - Answers

1. **Give 1 mark for two correct answers. Give 2 marks for three correct answers.**

True

False

True

False

2. 5%

3. Decoating

4. a) A closed-loop plant

b) **Give one mark for:**

Novelis is a closed-loop plant whereas other plants recycle aluminium into other things.

**Give a further mark for:**

These plants are useful because they use the aluminium to make things other than cans

5. Almost 100% of aluminium cans used in Europe end up being recycled

75% of the aluminium ever made is still being used.

6. Food waste