

Unit 8 Interactive Technology: A great invention?

1 Think!

Work with a partner. What do the objects in the pictures have in common?



2 Reading

a A group of students are visiting a science museum. The curator gives them a worksheet for each room. Read the worksheet and do the task in your notebook.

b Read the worksheet again and answer the questions.

- 1 What did people use before plastic?
- 2 What two things do plastics usually come from?
- 3 What is the problem with thermoset plastics?
- 4 Why is it easy to recycle thermoplastics?
- 5 Can we recycle plastic bags?

Did you know?

During World War II, in the USA, they started to produce plastic coins because they wanted to save metal for the war. But the process was too expensive and there wasn't enough petroleum at the time.



Image Courtesy of Heritage Auction Galleries, www.ha.com

Did you know?

In Venezuela they are building *petrocasas* - houses made of plastic - because they are cheap.

Name: _____ School: _____

Longford Science Museum

Student worksheet for plastics room

Student task: Read the text and write *TP* (thermoset plastics) or *T* (thermoplastics) for each photo.

Plastic is one of the greatest inventions of modern times. Think about all the plastic objects in your home! But did you know that the first plastics were invented in the 19th century – less than 200 years ago?



1 _____

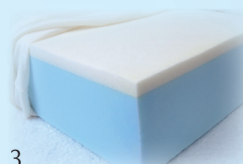
Plastic replaced wood, glass and other natural materials.



2 _____

Most plastics come from petroleum. There are two basic types of plastic – thermosets and thermoplastics. Thermosets are very hard and

they are difficult to recycle. Examples of thermoset plastics are hard plastic plates for the kitchen and also Formica, used in kitchen tops. Some strong glues called 'resins' are also made from thermoset plastic.



3 _____



4 _____

Thermoplastics are more flexible and they are easy to recycle. This is because we can melt them down and make new shapes – so they are better for the environment.

Examples of thermoplastics are plastic chairs and the polyurethane foam in our beds or sofas. Most plastic bags are also thermoplastic – but



5 _____

this plastic comes from gas, not petroleum. Plastic bags are easy to recycle but the problem is that we *don't* always recycle them. We just put them in the normal rubbish bins!



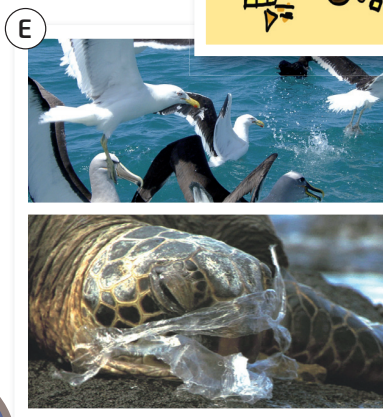
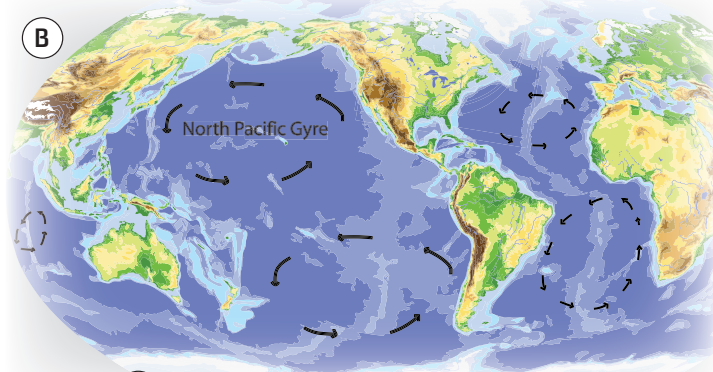
6 _____

3 Listening

a  3.57 Jonah and Bill are looking at a website about plastic. Listen and answer the questions.

- 1 What do Jonah and Bill see in the first photo?
- 2 Where is this happening?
- 3 Which animals die from eating the plastic?
- 4 What was found in the stomach of an albatross?
- 5 How can we recycle plastic bags?
- 6 Where do most plastic bags go?

b Work with a partner. What can you see in the pictures? Match them with the questions.



Did you know?

Some microbes can 'eat' plastic bags. This wasn't discovered by scientists, it was discovered by a 16-year-old Canadian schoolboy called Daniel Burd!



mini-dictionary

wood = the hard material that trees are made of

glass = the hard material that windows and bottles are made of

glue = a substance used to stick things together

to melt down = to change from a solid into a liquid

the environment = the air, land and water where people, animals and plants live

landfill = a place where rubbish is buried

4 Final task

Work with a partner. Choose option A or B. You can look on the internet for information.

A

- How many things can you think of that are made of plastic? Make a list of 20 things with a partner.
- Look at your lists. Did these objects exist before plastic was invented? What were they made of in the past?
- Write up your ideas in a table.

B

- Do you use a lot of plastic bags? Make a list of five ways to use fewer plastic bags.
- Write up your ideas in a paragraph.