

Plastics and the Environment

What is a plastic?

Plastic is a material we all use every day. The first plastics were made more than 100 years ago from parts of plants.



Plastics can be useful for people but bad for the planet. Here are some of the reasons.

| Good points | Bad points |
|--|--|
| <p>Plastics can be shaped into almost anything.</p> <p>Plastics are light and cheap to make.</p> <p>Plastics can be produced in different colours.</p> <p>Plastics do not rot.</p> | <p>Plastics can be difficult to recycle.</p> <p>Plastics can give off poisonous fumes when they melt.</p> <p>Plastics are made from oil, which is running out.</p> <p>Plastics do not rot.</p> |

The problem with plastics

Some plastics can last for a long time without wearing out, but this means that it is very difficult to get rid of them when they are not needed. They may remain in rubbish dumps for hundreds of years. These dumps, called landfill sites, can be smelly, ugly and harmful to our planet.



Plastic today and in the future



Plastics are now made from oil, coal and natural gas. We are using these things so fast that the Earth's supplies may run out. Scientists are investigating new ideas for making plastics from plants such as sweet potato, bamboo and flax.



What you can do to help

Re-use

You can re-use lots of plastic objects. Plastic bottles can be re-used many times, rather than throwing them away after each drink. Unwanted plastic goods, such as CDs and toys, can be donated to charity shops.



Reduce

Another thing we can do to help is to use less plastic. For example, many people are using fewer plastic bags for their shopping.

Recycle

Recycling is a good way to get rid of unwanted plastics. Recycled waste materials are used again to make new products. However, this can be difficult as different types of plastic need to be recycled in different ways. Some plastics can be melted and used to make more plastic products such as bags and bottles. Others can be made into fibres (strands of material) for clothing.

2

Plastics and the Environment

(page 1)

- 1 When were plastics first made?
-

2 Tick **two** good points about plastics.

Plastics can be...

Tick **two**.

nice to smell.

any shape.

grown.

eaten.

many colours.

3 Why can plastics be dangerous when they melt?

4 Give **two** problems with landfill sites.

1. _____

2. _____

(page 2)

5 What are most plastics made from today?

Give **two** things.

1. _____

2. _____

(page 2)

6 What might plastics be made from in the future?

Give **two** things.

1. _____

2. _____

(page 3)

7 Look at the section headed: **Re-use**

Find and **copy** the word that means the same as “given away”.

(page 3)

8 Look at the section headed: **Recycle**

Give **one** thing that can be made from recycled plastics.

9 Draw lines to match the words below to their meaning.

words

meanings

Re-use

use the same thing more than once

Reduce

turn an object into something else

Recycle

use less of something

(pages 1 - 3)

10 Put ticks in the table to show which sentences are **true** and which are **false**.

One has been done for you.

| The information says that... | True | False |
|--|------|-------|
| recycling is a good way to get rid of unwanted plastics. | ✓ | |
| we should use more things made of plastic. | | |
| today we use plastics a lot. | | |
| plastic is hard to get rid of. | | |
| plastics rot. | | |

Mark schemes

2

1 **Award 1 mark** for:

- *(more than) 100 years ago.*

1 mark

2 **Award 1 mark** for the correct **two** options ticked.

nice to smell.

any shape.

grown.

eaten.

many colours.

1 mark

3 **Award 1 mark** for a reference to poison, e.g.

- *they are poisonous*
- *they give off poisonous fumes*
- *when they melt they have poisonous fumes.*

1 mark

4 **Award 1 mark** for **two** of the following:

1. *smelly*
2. *ugly*
3. *harmful (to the planet).*

Also accept references to lasting for hundreds of years.

1 mark

5 **Award 1 mark** for **two** of the following:

1. *oil*
2. *coal*
3. *(natural) gas.*

Do not accept reference to plants (including specific names – e.g. bamboo).

1 mark

6 **Award 1 mark** for two of the following:

1. *sweet potato*
2. *flax*
3. *bamboo.*

Also accept plants.

1 mark

7 **Award 1 mark** for: *donated.*

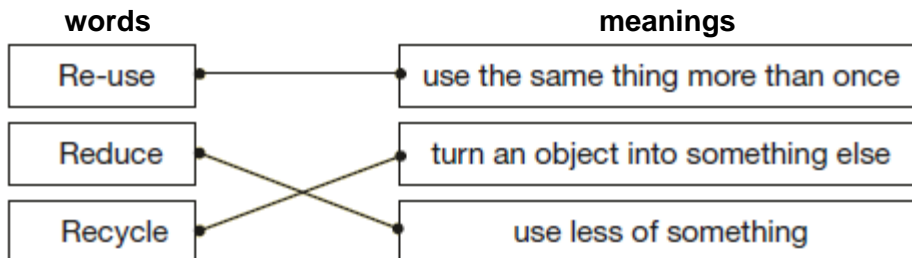
1 mark

8 **Award 1 mark** for any of the following:

1. *bags*
2. *bottles*
3. *(fibres for) clothing.*

1 mark

9 **Award 1 mark** for the correct matching.



1 mark

10 **Award 2 marks** for all **four** correct.

Award 1 mark for **two** or **three** correct.

| The information says that... | True | False |
|--|------|-------|
| recycling is a good way to get rid of unwanted plastics. | ✓ | |
| we should use more things made of plastic. | | ✓ |
| today we use plastics a lot. | ✓ | |
| plastic is hard to get rid of. | ✓ | |
| plastics rot. | | ✓ |

2 marks