

Plastic Pollution

When people think about plastic, they may think of lots of everyday items that make our lives easier: food wrappers, toys, gadgets and even the pipes that carry water to and from our homes. In fact, plastic is so popular in the UK today that it is hard to imagine life without it.



However, while plastic makes human lives easier, it makes the lives of Britain's wildlife much harder. It could be putting the existence of some of our much-loved creatures in danger.



Plastic Waste Facts

160,000 plastic bags are used around the world every second.



8 out of 10 pieces of plastic made over the last 70 years have been thrown away.



Of all of the plastic waste created by 2015: 9% recycled, 12% burned, 79% in landfills or the natural environment.

Plastic and the Environment

There are many different ways that plastic can enter the environment:

- litter;
- washed down drains;
- spilled by ships;
- escaped from factories;
- blown out of bins;
- abandoned by humans.



So much plastic enters the environment each year that it can be found in fresh water, soil, air and oceans around the world.

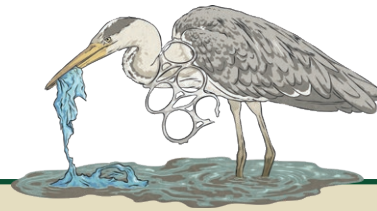
The Problem with Plastic

Unlike paper, fruit peel or fabric, most types of plastic that end up in the local environment will not break down over time. The plastic will simply stay where it is forever unless it is moved by humans or eaten, by mistake, by wildlife.

A huge problem with plastic is the chemicals it contains. Over time, pieces of plastic litter will break into smaller pieces. These smaller pieces are often eaten by wildlife that think that it's food. Scarily, these tiny pieces of plastic contain poisonous chemicals and heavy metals that can kill wildlife. The chemicals make their way into the food chain and do not just affect the creature who ate the plastic but also affect any animal that then consumes them.



"Female Mallard By Water With Rubbish" by Martin Kessel



How We Can Help

People around the world have caused the plastic problem we face today and it cannot be fixed overnight. The best way to stop any further harm to wildlife is by changing how we think about and use plastic. Some helpful tips are:

- Instead of using plastic items, such as straws and plastic bags, buy reusable items, e.g. flasks for hot drinks and canvas shopping bags.
- Glitter (which is often made of plastic) and balloons can also be damaging to the environment and dangerous to animals, who may mistake them for food.
- Recycle as much of your waste as possible.
- Safely pick up litter you see in the environment.



Threats to Wildlife

The largest threats to wildlife from plastic waste in the environment are:

- becoming tangled in plastic waste which can cause death or injury;
- eating plastic waste by mistake which can cause wildlife to choke;
- poisoning from the chemicals within the plastic which can lead to illness and death.

Questions

1. Which of these is not a way that plastic enters the environment? Tick one.

- by being blown out of bins
- by being abandoned by humans
- by being dug up from the ground
- by being washed down drains

2. Number the sub-headings to show the order they appear in the text. The first one has been done for you.

- The Problem with Plastic
- 1 Plastic Waste Facts
- Threats to Wildlife
- Plastic and the Environment
- How We Can Help

3. List **two** everyday items mentioned in the text which can be made from plastic.

- _____
- _____

4. How many plastic bags are used around the world each second?

5. Find and copy one adjective from the first paragraph which is used to describe plastic.

6. Fully explain why the chemicals within plastic endanger wildlife.

7. Discuss one of the largest threats to wildlife from plastic waste in the environment.

8. Comment on one change you could make to help to reduce plastic pollution.

Answers

- Which of these is not a way that plastic enters the environment? Tick one.
 - by being blown out of bins
 - by being abandoned by humans
 - by being dug up from the ground**
 - by being washed down drains
- Number the sub-headings to show the order they appear in the text. The first one has been done for you.
 - 3** The Problem with Plastic
 - 1** Plastic Waste Facts
 - 4** Threats to Wildlife
 - 2** Plastic and the Environment
 - 5** How We Can Help
- List **two** everyday items mentioned in the text which can be made from plastic.
Accept any two of the following: food wrappers; toys; gadgets; pipes.
- How many plastic bags are used around the world each second?
160,000 plastic bags are used around the world each second.
- Find and copy one adjective from the first paragraph which is used to describe plastic.
popular
- Fully explain why the chemicals within plastic endanger wildlife.
Pupils' own responses, such as: The chemicals within plastic endanger wildlife because they are poisonous. When animals accidentally eat bits of plastic, the poison can hurt or kill both them and anything which eats them in their food chain.
- Discuss one of the largest threats to wildlife from plastic waste in the environment.
Pupils' own responses, such as: One of the largest threats to wildlife from plastic waste in the environment is that animals can become tangled in plastic waste, resulting in their injury or death.
- Comment on one change you could make to help to reduce plastic pollution.
Pupils' own responses, such as: To help to reduce plastic pollution, I could stop using plastic bags when I go to the shop and take a canvas bag with me instead.

Plastic Pollution

When people think about plastic, they may think of lots of everyday objects that make our lives easier: food containers, toys and gadgets and even the pipes that carry water to and from our homes. In fact, plastic is so popular in the UK today that it is almost impossible to imagine life without it.

However, while plastic makes human lives easier, it makes the lives of Britain's wildlife much harder and it could be **endangering** the existence of some of our much-loved creatures.

Almost 80% of plastic produced over the last 70 years has been thrown away.



Plastic Waste Facts

160,000 plastic bags are used around the world every second.



By 2015, 6,300 million metric tonnes of plastic waste had been created.



Plastic and the Environment

There are many different ways that plastic can enter the environment:

- not disposing of it properly, e.g. littering;
- washed down drains from face washes and clothing;
- spilled overboard by ships;
- escaped from factories and warehouses;
- blown out of bins or landfills by the wind;
- abandoned, e.g. fishing nets.

So much plastic enters the environment each year that it can be found in fresh water, soil, air and oceans around the world.



Of all of the plastic waste created by 2015: 9% recycled, 12% burned, 79% in landfills or the natural environment.

The Problem with Plastic

Most types of plastic are neither **biodegradable** nor **compostable**. Therefore, any plastic that ends up in the local environment will not break down over time, like paper, fruit peel or natural fabrics do. Plastic will simply remain where it is forever unless it is removed by humans or mistakenly consumed by wildlife.

A huge problem with the plastic that ends up in the environment is the chemicals it releases. Over time, pieces of plastic litter will break into smaller pieces. When plastic breaks into **microplastics**, it is eaten by wildlife that mistake it for food.

Scarily, these microplastics contain **toxic** chemicals and heavy metals – poisonous and deadly to local wildlife. These make their way into the food chain, affecting not only the animal that ate the plastic but any animal that then goes on to consume the first animal.



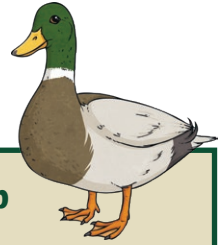
"Female Mallard By Water With Rubbish" by Martin Kessel

Threats to Wildlife

The largest threats to wildlife from plastic waste in the environment are:

- death or injury caused by becoming tangled in plastic waste, for example, birds that become trapped in fishing nets or hedgehogs caught in plastic can holders;

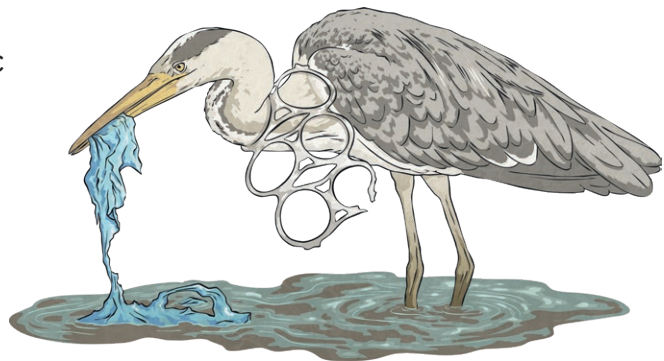
- animals eating plastic waste by mistake, thinking that it is food, for example, some birds eat plastic bags that float in a pond because they think that they are fish;
- poisoning from the chemicals within the plastic which can lead to illness and death.



How We Can Help

People around the world have caused the plastic problem we face today and it cannot be fixed overnight. The best way to stop any further harm to wildlife is by changing how we think about and use plastic. Some helpful tips are:

- Instead of using plastic items, such as straws and plastic bags, buy reusable items, e.g. flasks for hot drinks and canvas shopping bags.
- Glitter (which is often made of plastic) and balloons can also be damaging to the environment and dangerous to animals, who may mistake them for food.
- Recycle as much of your waste as possible.
- Safely pick up litter you see in the environment.



Glossary

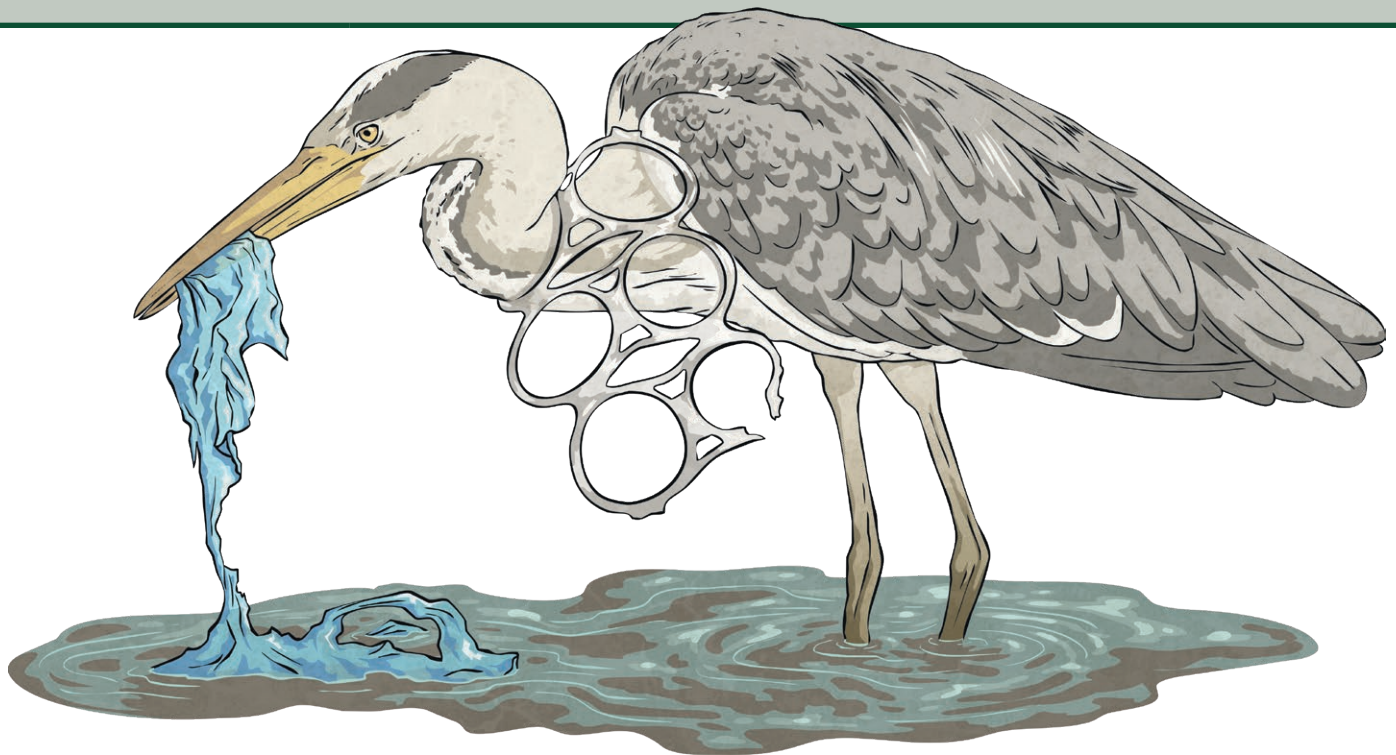
biodegradable: Something that can be naturally broken down by bacteria.

compostable: Something that is biodegradable and can help support plant growth.

endanger: To put something or someone at risk or in danger.

microplastics: Extremely small pieces of plastic in the environment resulting from the breakdown of bigger pieces of plastic waste.

toxic: Something poisonous or harmful.



Questions

1. Which of these is not a way that plastic enters the environment? Tick one.

- by being blown out of bins
- by being abandoned by humans
- by being dug up from the ground
- by being washed down drains

2. Using the infographic to help you, match the percentages to the correct fact.

9%

Existing plastic that has been burned.

12%

Existing plastic which has ended up in landfills or the natural environment.

79%

Existing plastic that has been recycled.

3. Find and copy **two** examples of items that the text implies will break down over time.

- _____
- _____

4. **...and could be endangering the existence of some of our much-loved creatures.**

Which word or phrase could the author have used instead of the word **endangering** in this sentence?

5. Find and copy one adjective from the section entitled **The Problem with Plastic** that describes the chemicals found in microplastics.

6. Summarise the section entitled **Threats to Wildlife** in 30 words or less.

7. Which fact from the text did you find most shocking? Give **two** reasons for your answer.

8. Fully explain the dangers of microplastics.

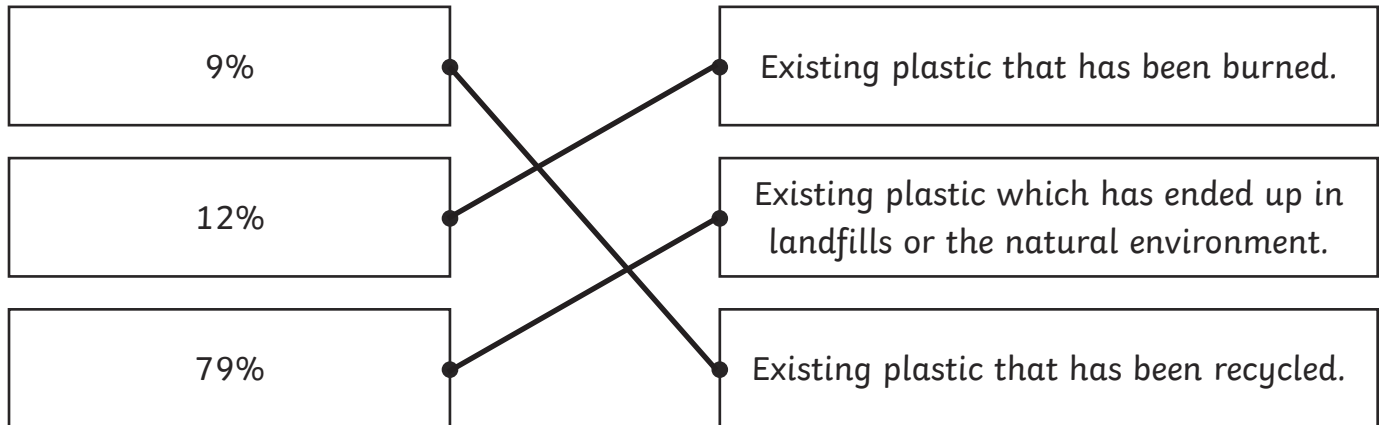
9. Conduct some research on the Internet. What are the UK Government currently doing to reduce the effects of plastic pollution in the UK?

Answers

1. Which of these is not a way that plastic enters the environment? Tick one.

- by being blown out of bins
- by being abandoned by humans
- by being dug up from the ground**
- by being washed down drains

2. Using the infographic to help you, match the percentages to the correct fact.



3. Find and copy **two** examples of items that the text implies will break down over time.
Accept any two of the following: paper; fruit peels; fabric.

4. **...and could be endangering the existence of some of our much-loved creatures.**

Which word or phrase could the author have used instead of the word **endangering** in this sentence?

Accept any appropriate synonym, such as: risking; compromising; jeopardising; damaging; putting in danger.

5. Find and copy one adjective from the section entitled **The Problem with Plastic** that describes the chemicals found in microplastics.

toxic

6. Summarise the section entitled **Threats to Wildlife** in 30 words or less.

Pupils' own responses, such as: Plastic pollution can harm wildlife because creatures may become tangled in waste, eat the plastic by mistake and become poisoned by the chemicals in the plastic.

7. Which fact from the text did you find most shocking? Give **two** reasons for your answer.
Pupils' own responses, such as: I found it most shocking that 160,000 plastic bags are used every second because this is a very large number and I did not realise that plastic bags were used on this scale. It also shocks me because it shows how few people use reusable bags.

8. Fully explain the dangers of microplastics.

Pupils' own responses, such as: Microplastics are dangerous because they can be mistakenly eaten by wildlife that think that it is food. When the wildlife eat the microplastic, they can become poisoned or killed by the dangerous chemicals it contains.

9. Conduct some research on the Internet. What are the UK Government currently doing to reduce the effects of plastic pollution in the UK?

Pupils' own responses, such as: The UK Government have joined the Commonwealth Clean Oceans Alliance and have promised funds to help improve waste management to stop plastics entering the waters.

Plastic Pollution



When people think about plastic, they may think of a range of everyday objects that serve to make our lives easier: containers in which to store food, toys and gadgets that we play with and even the pipes that carry water to and from our homes. In fact, plastic is so popular in the UK today that it is almost impossible to imagine life without it.

However, while plastic makes human lives easier, it makes the lives of Britain's wildlife much harder and could be endangering the existence of some of our much-loved species.

Plastic Waste Facts

160,000 plastic bags are used around the world every second.



79% of plastic produced over the last 70 years has been thrown away.



By 2015, 6,300 million metric tonnes of plastic waste had been created.



Of this:
9% recycled,
12% burned, 79% in landfills
or the natural environment.



Plastic and the Environment

There are many different ways that plastic can enter the environment:

- not disposing of it properly, e.g. littering;
- washed down drains from face washes and clothing;
- spilled overboard by ships;
- escaped from factories and warehouses;
- blown out of bins or landfills by the wind;
- abandoned, e.g. fishing nets.

So much plastic enters the environment each year that it can be found in fresh water, soil, air and oceans around the world.

The Problem with Plastic

Although few forms of plastic can be classed as biodegradable – meaning that they will break down completely over time if exposed to the right conditions – most types of plastic are neither biodegradable nor compostable. Therefore, any plastic that ends up in the local environment will not break down over time, unlike paper, fruit peel or natural fabrics. They will simply remain indefinitely until they are removed by humans or mistakenly consumed by wildlife.

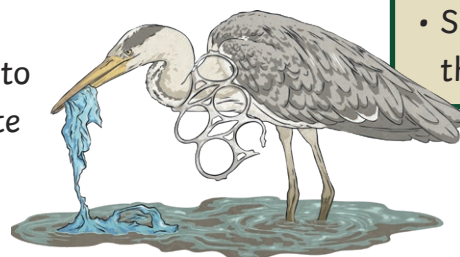
A huge problem with the plastic that ends up in the environment is the chemicals it releases. Over time, pieces of plastic litter will break into smaller pieces. When plastic breaks into tiny pieces, known as microplastics, it is consumed by wildlife that mistake it for food. Alarmingly, these microplastics contain toxic chemicals and heavy metals – poisonous and deadly to local wildlife. These make their way into the food chain, affecting not only the creature who ate the plastic but any animal that goes on to consume them.



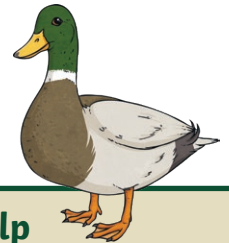
"Female Mallard By Water With Rubbish" by Martin Kessel

Threats to Wildlife

The largest threats to wildlife from plastic waste in the environment are:



- death or injury caused by becoming tangled in plastic waste, for example, birds becoming trapped in fishing nets or hedgehogs caught in plastic can holders;
- mistakenly eating plastic waste thinking that it is food, for example, birds eating plastic bags that float in a pond, mistaking them for fish;
- poisoning from the chemicals contained within the plastic which can lead to illness and death.



How We Can Help

The plastic problem we face today has not been created by one single place. It is a problem that has been created by every country and it is one which cannot be solved overnight. The key way to prevent any further harm to wildlife is by changing our attitude towards plastic. Some helpful tips are:

- Instead of using plastic items, such as straws and plastic bags, buy reusable items, e.g. flasks for hot drinks and canvas shopping bags.
- Glitter (which is often made of plastic) and balloons can also be damaging to the environment and dangerous to animals, who may mistake them for food.
- Recycle as much of your waste as possible.
- Safely pick up litter you see in the environment.

Questions

1. ...they will simply remain indefinitely until removed by humans...

Which of these is the most accurate definition for the word indefinitely? Tick one.

- globally problematic
- for the foreseeable future
- restricted from view
- negatively impactful

2. Match the sub-heading to the best summary of its contents.

Plastic and the Environment

A visual representation of facts and figures regarding plastic use and disposal.

Plastic Waste Statistics

An explanation of different ways plastic enters natural habitats.

Threats to Wildlife

An exploration of the damaging impact plastic pollution has on creatures and their habitats.

3. ...and could be endangering the existence of some of our much-loved species.

Define the word **endangering** based on its use in this sentence.

4. What percentage of plastic produced over the last 70 years has been thrown away?

5. Which creature may birds mistake plastic bags for?

6. Fully explain how plastic pollution endangers Britain's wildlife.

7. Plastic pollution is a global problem. Propose three steps which could be taken globally to reduce plastic pollution.

8. Summarise what is meant by microplastics in 15 words or less.

9. Comment on one change you have already made and one change you will make in the future in order to reduce plastic pollution.

10. Summarise the purpose of this text and its intended audience.

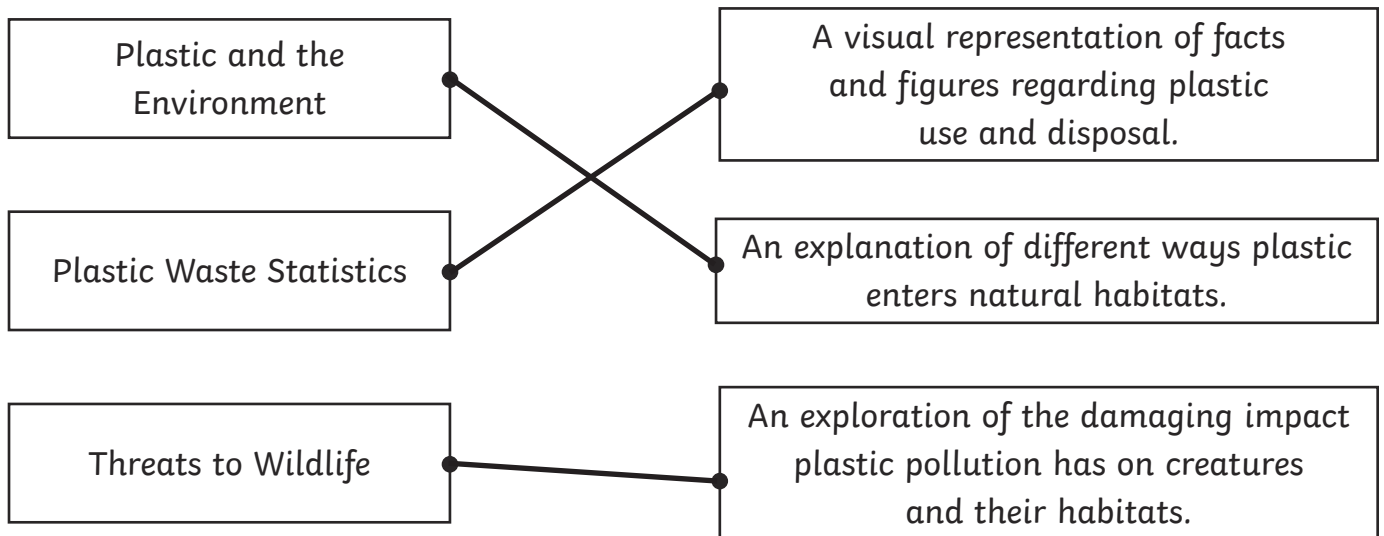
Answers

1. **...they will simply remain indefinitely until removed by humans...**

Which of these is the most accurate definition for the word indefinitely? Tick one.

- globally problematic
 for the foreseeable future
 restricted from view
 negatively impactful

2. Match the sub-heading to the best summary of its contents.



3. **...and could be endangering the existence of some of our much-loved species.**

Define the word **endangering** based on its use in this sentence.

Pupils' own responses, such as: Endangering means putting something at risk or in danger.

4. What percentage of plastic produced over the last 70 years has been thrown away?
79% of plastic produced over the last 70 years has been thrown away.

5. Which creature may birds mistake plastic bags for?
Birds may mistake plastic bags for fish.

6. Fully explain how plastic pollution endangers Britain's wildlife.
Pupils' own responses, such as: Plastic pollution can harm wildlife because creatures may become tangled in waste, eat the plastic by mistake and become poisoned by the chemicals in the plastic.

7. Plastic pollution is a global problem. Propose three steps which could be taken globally to reduce plastic pollution.

Pupils' own responses, such as: All single-use plastic items, such as straws and cutlery, could be banned globally. They could remove the use of plastic items and bottles from all international flights. Also, world leaders could meet to discuss measures to reduce plastic production and promote recycling.

8. Summarise what is meant by microplastics in 15 words or less.

Pupils' own responses, such as: Microplastics are tiny pieces of plastic that have been broken down from larger pieces.

9. Comment on one change you have already made and one change you will make in the future in order to reduce plastic pollution.

Pupils' own responses, such as: One change I have already made is that I have started refilling a water bottle instead of buying more bottled water. One change I will make in the future is that I will take my own bag to the supermarket instead of buying more plastic carrier bags.

10. Summarise the purpose of this text and its intended audience.

Pupils' own responses, such as: I think that this text is intended for a young audience, especially children who are interested in wildlife and the environment. Its purpose is to inform them of the hazards of plastic pollution and to help them to make changes for the better to help the environment.