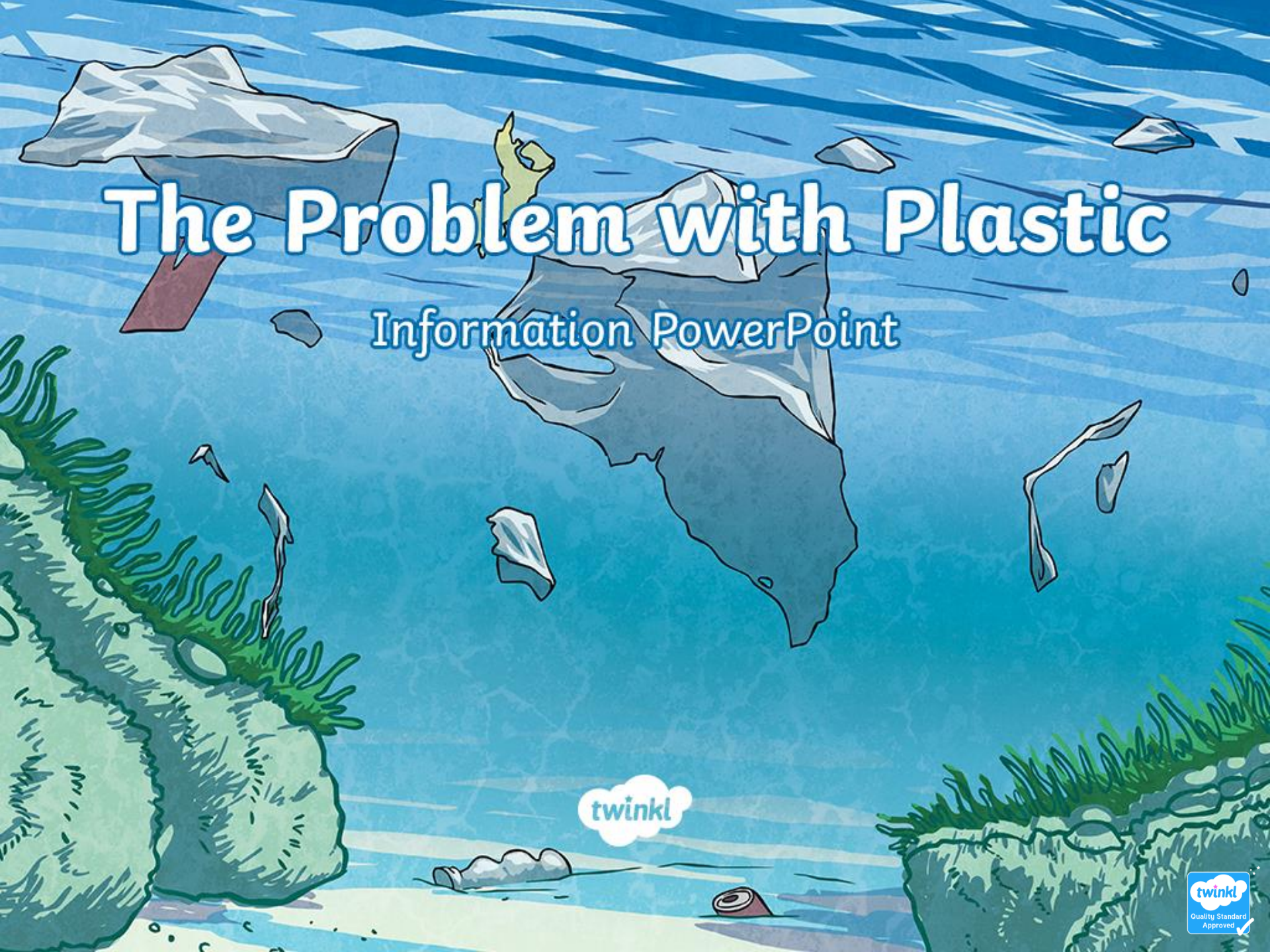
The Problem with Plastic
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# Plastic Here and There

Plastic is a very popular material. Think about all the objects at home and school which are made from plastic. You have a minute to jot down as many as you can!

Time's Up!



# The Birth of Plastic

Plastic was first created by a British inventor called Alexander Parkes in 1855. He used some natural materials in his plastic.

Then, in 1907, Leo Baekeland, a Belgian living in New York, invented the first synthetic plastic which he named Bakelite. It was created using hydrocarbon chemicals.

After the Second World War, it was mass produced and used in making televisions, trays, jewellery, furniture and even toys.

# Plastic Is Useful!

It keeps things airtight, which is ideal for keeping food fresh.

It is waterproof so nothing leaks out or drips in.

It can be made into a range of items from chairs to cars, dice to drainpipes.

It can even be used in craft and art work!

| Did you know? | Discuss it |
| --- | --- |
| The word ‘plastic’ comes from the Greek word ‘plastikos’ which means ‘fit for moulding’. | Talk about the other uses of plastic. |

# Producing Plastic

The production of plastics requires natural products, such as coal, natural gas and crude oil. These fossil fuels are extracted from the earth. Fossil fuels are a finite resource: they take millions of years to form, which means they will run out eventually. Manufacturing plastic releases harmful gases into the air, which contribute to global warming.

## Fact

There are more than 300 million tonnes of plastic produced each year. That amount is close to the weight of the human population on Earth! By the end of the century, it is estimated that 30 billion tonnes will be produced. The impact on the Earth will be huge.

# Durability and Biodegradability

Plastic is incredibly durable and it is not biodegradable. It does not decompose like vegetables, fruit or meat.

Getting rid of unwanted plastic is a challenge. If it is burned, harmful gases are released into the atmosphere. This causes air pollution.

It is usually buried in huge landfill sites. Even though we don't see it, it is still there and it can last for many decades.

**Fact**

There are efforts being made to produce biodegradable plastic. At the moment, these depend on sunlight, which doesn't help the plastic in landfills.

# Plastic and the Environment

The biggest problem with unwanted plastic is the pollution and damage it causes the environment.

Plastic breaks into tiny pieces, which then get blown around by the wind and the rain.

It ends up in our streams, rivers and the ocean.

| Fact | Discuss it |
| --- | --- |
| There is increasing evidence which shows that regularly using some plastics can cause health problems for people. | Talk to the person beside you about your thoughts. |

# Plastic Pollution

## Think about it

What do you think about these pictures?

All living things should be able to live free from pollution and harm from plastics. So, what can we do?

# What You Can Do

Look at these two pictures. Which do you think is the right thing to use, to help the environment?

Water bottles are one of the main causes of environmental pollution. Instead of using lots of water bottles and throwing them away, have a glass or mug of water. Not only is it environmentally-friendly, it is also cheaper!

# What You Can Do

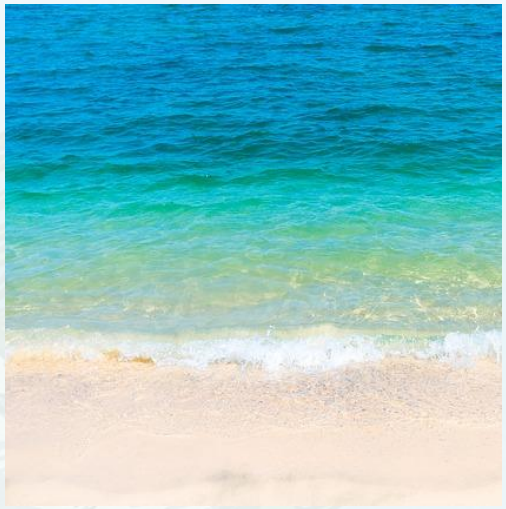
Look at these two bags.

Which do you think is the more environmentally-friendly bag?


Carrier bags are often used once and thrown away. Instead, buy a bag for life and keep using it. Since many shops charge 5p per bag, a reusable one is cheaper too!

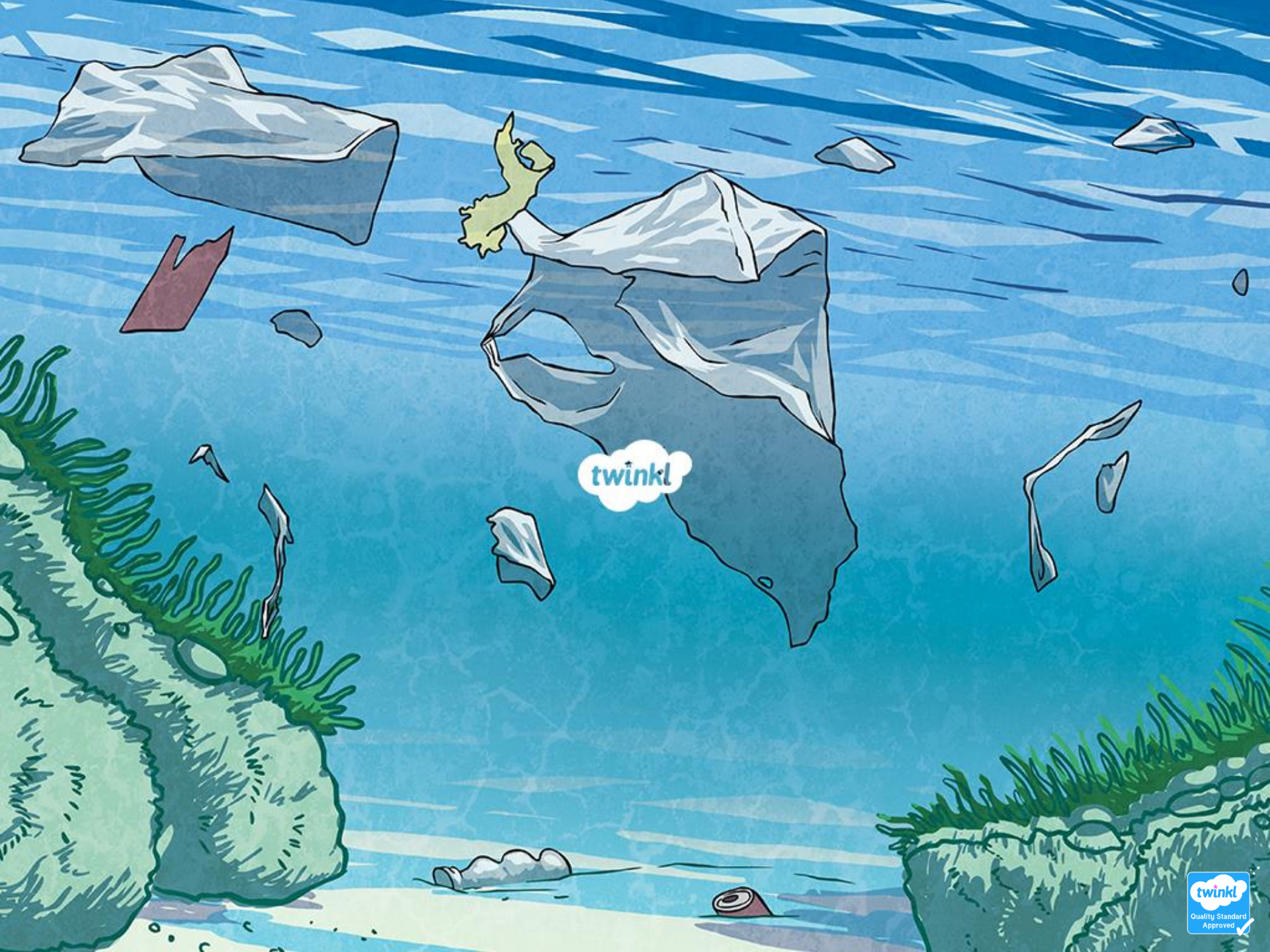
# Our Responsibility

By making small changes, we can all make a difference. Let's all work together to make the Earth a healthier and cleaner place for everything.



# Glossary

| | |
|---|---|
| air pollution | something in the air which poisons or causes damage to living things |
| biodegradable | able to be broken down by microorganisms |
| decompose | something natural which breaks down and provides nutrients for living things |
| durable | long lasting |
| fossil fuels | materials like coal, gas and oil which have formed over millions of years from plants and animals |
| global warming | an increase in the earth and ocean temperature |
| hydrocarbon chemicals | chemicals which exist in fossil fuels |
| landfill sites | a place for burying things which cannot decompose |
| microbeads | tiny pieces of plastic |
| pollution | when the air, land or water is made dirty by chemicals and rubbish |
| toxic | poisonous and harmful |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