



Key Vocabulary

1	Plastic	A type of material that is made by people and can be formed into any shape.
2	Pollution	When the environment is contaminated or dirtied by waste, chemicals and other harmful substances.
3	Landfill	Huge holes in the ground that we fill with rubbish and cover with soil.
4	Gyres	Rotating ocean currents.
5	Biodegradable	Is able to break down into very small harmless parts by the action of living things e.g. bacteria.
6	Bioplastic	Biodegradable plastic that is made from biological materials.
7	Microbead	Tiny pieces of plastic that are less than 1mm in size. They can be found in some cosmetics and toothpastes.
8	microplastics	Tiny pieces of plastic less than 5mm across. A major cause of ocean pollution.
9	Single use plastic	Plastic products that are only used once before they are thrown away.

Key Facts

- Henderson Island**
 - A British Island in the South Pacific Ocean halfway between New Zealand and Chile.
 - Nobody lives there but it is the most polluted place on the planet with 38 million pieces of plastic on its beaches.
 - 3,500 pieces of plastic are deposited there every day.
 - Plastic has been found from: Russia, the US, Europe, South America, Japan and China.
- South Pacific Garbage Patch**
 - Plastic gets caught up in the ocean currents (gyres) and collects in huge areas.
 - The garbage patch is larger than the country of India.
 - Most of the plastic found is microplastic.
 - Eventually the plastic will sink and be carried around the planet by ocean currents.
- Why do oceans matter?**
 - Over 700 million people depend on fishing.
 - Fish and seafood are the main source of protein for more than a billion of us.
 - They are home to an incredible variety of wildlife.
 - Home to the largest animal ever to live on Earth, the blue whale.
 - Around 70% of the world's people live within 60km of the sea.
 - Around 80% of all tourism takes place in coastal areas.

Key Questions for the Topic

- Do you know the 5 R's? What are they and how could they help our world's water pollution?
- Where in the world is Henderson Island? How do you think we can fix the problem there?
- How many different types of pollution can you think of?
- What are the conditions of the ocean to enable it to be a habitat for many species?
- Mission: To remember all continents and oceans in the world!





Prior Vocabulary

1	environment	Our planet provides everything that we and all living things need. We call it our environment.
2	climate	Climate is the average weather conditions over many years (usually around 30 years). The earth's climate is just right, meaning that things can live on the planet.
3	climate change	Climate change is a change in the overall weather and temperature on Earth. (Not the day-to-day weather). The Earth is getting warmer due to some of the things humans are doing. This means it will be more difficult for living things to survive.
4	atmosphere	The layer of gas surrounding the Earth.
5	greenhouse gas	Greenhouse gases are special types of gas in the atmosphere. They let sunlight through but stop heat from escaping, like a greenhouse, so the Earth warms up.
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Prior Knowledge

1	That energy makes everything work.
2	That electricity, gas and oil are all sources of power. They give us energy to make things work.
3	That being endangered means that scientists think that a type of animal or plant is at risk of becoming extinct.
4	That being extinct is when there are none of that type of animal or plant species left alive anywhere in the world.

Renewable power sources



Wind turbines turn the **energy** from the wind into electricity.



Solar panels turn the **energy** from sunshine into electricity.



The **energy** from heat deep underground can be turned into electricity. This is geothermal **energy**.



Biomass means 'natural material'. It is burned to create **energy**.

Future Learning

1	What is an action and process of converting waste into reusable materials?
2	What is a large plot of land where crops are grown?
3	Can you describe an overflow of water that submerges land which is usually dry?
4	What is the definition of anything that we make use of to make things?
5	What is a way of growing crops and rearing animals that uses natural means to control pests and return nourishment to the soil?
6	What is a surrounding in which a person, animals, and plant lives in.?
7	Some power sources can be replaced. This means they will never run out. Solar power, wind power, geothermal power, biomass and wave power are all what kind of power sources?
8	Non-renewable power sources such as coal, oil and gas can't be replaced once they have been used. Scientists think these are running out. Is this true? Can you explain why and how this is happening?

Key Knowledge

Effects of climate change:



floods



droughts



storms



melting sea ice