

Year 6

The Great Pacific Garbage Patch

Key vocabulary

Biodegradable waste	materials or objects capable of being broken down or decomposed to smaller products by the action of living things
climate change	a change in the average conditions in a region over a long period of time
deforestation	when a forest or tree-covered area is turned into something else
environment	All our surroundings including the air, soil, water, plants, and animals
Great Pacific Garbage patch	a zone in the Pacific Ocean between Hawaii and California where plastic waste has gathered
gyre	A spiral or vortex. A large system of circulating ocean currents, particularly those involved with large wind movements
impact	have a strong effect on something
microplastic	extremely small pieces of plastic debris in the environment
prevention	the action of stopping something from happening or arising
urbanisation	when more people start living in cities

How has the 'Great Pacific Garbage Patch' formed and what are we doing about it?

The Great Pacific Garbage Patch is an area in the ocean which contains a huge floating collection of plastic waste. It is located along the West Coast of North America. Most of the plastic is not large items like bottles or crates. A large percentage of the debris is made up of 'microplastics.'

How does climate change affect humans?

more extreme weather

- reduced crop yields

- flooding of low-lying areas

migration and overcrowding

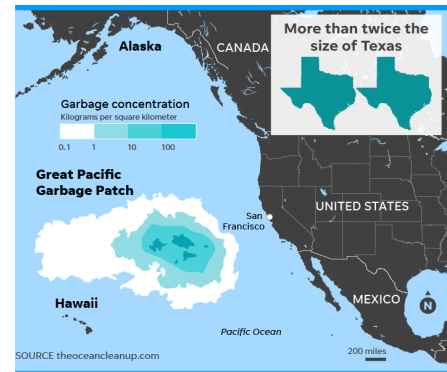
- increased heat could cause death

- new diseases/migration of diseases to new areas

The garbage patch is formed due to the circulating

currents found in the oceans.

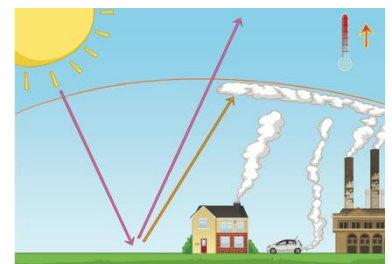
Plastic waste that reaches these currents is trapped in a giant, slow moving whirlpool.



How do humans affect the planet we live on?

Experts believe that humans are the main reason why the world's climate and weather are changing. A key contributing factor is the creation of greenhouse gases caused by human activities. This can be through burning oil, coal and gas, transportation, manufacturing and construction, single-use plastics and agriculture. Greenhouse gases (carbon dioxide, methane and nitrous oxide) that get released into the atmosphere prevent heat from escaping the Earth.

The result of this is that whilst the Sun's rays can enter the atmosphere to provide our planet with heat and warmth, not as



much can escape. Therefore, the planet keeps getting hotter and hotter.

How does climate change affect the planet?

- rise in sea levels
- melting sea ice is reducing
- flooding could lead to species extinction
- changing precipitation patterns
- increased sea temperatures cause coral bleaching, destroying their habitat

