

Plastic in the oceans

Every year hundreds - possibly thousands of turtles die from eating plastic waste or becoming entangled in netting. Rubbish, including plastic bags and even toothbrushes, has been found in turtles' stomachs. Plastic is made from crude oil extracted from the ground. It can be used for many purposes and is a relatively cheap material. Plastic waste often ends up in landfill sites or is washed along rivers and out to sea. Plastic takes hundreds of years to break down. It breaks down to form tiny particles called **Microplastics**, which never completely decompose. These are toxic and can cause harm to organism when eaten.

This concentration of plastic waste is part of what is known as the **Great Pacific garbage patch**.

Climate change

Climate change is nothing new. It has been going on since Earth formed some 4600 million years ago. But since the 1970s, global temperatures have been rising faster than in the past. This is called **global warming**. Recent global warming is probably the result of human actions.

Global average temperatures have increased by about 1°C since 1850.



Global issues

Sustainable tourism

Around the world in 2017, over 1.3 billion people travelled to other countries for holidays. The most popular destinations for tourists from the UK. In 2017, over 18 million people travelled to the most popular destination - Spain. The destination that was growing fastest in popularity was the United Arab Emirates, followed by Croatia. The travel and tourism industry is one of the largest and fastest growing industries in the world. In 2016, it was worth a staggering US\$7.6 trillion.

Wilderness areas under threat

Wilderness means wild place or wild land. Typically these are undisturbed areas where there has been little or no development by people.



Wilderness areas are important because:

- Wilderness areas produce and filter freshwater
- Forest biomes absorb carbon dioxide from the air, helping to reduce global warming
- Provide recreational opportunities for people, such as hiking, riding, kayaking, wildlife watching and fishing.

Wilderness areas are under threat from human actions such as mining, oil extraction, hunting and tourism.

What is the cause of climate change?

Long-term changes in climate are caused by slight variations in Earth's orbit around the sun. Some gases in the lower atmosphere act like a warm blanket around Earth, trapping heat in. This is called the greenhouse effect.



Recent evidence for climate change

Across the world, glaciers are melting and retreating

16 out of the 17 warmest years on record have occurred since 2001

Arctic sea ice has been decreasing in extent since the 1970s

The ice sheets in Greenland and Antarctica are melting at an increasing rate

Since 1900, the global sea level has risen by 20cm

In the USA, rainfall events have become more intense

Changes in the seasons are affecting wildlife e.g. some birds are migrating earlier and some plants are flowering earlier.

The geography of conflict zones

A conflict usually involves a violent clash between two or more opposing groups. It can also involve an attack on a community or a minority ethnic group.

Case study: Civil war in Syria

Syria is a country in the Middle East that borders the Mediterranean Sea. The climate is hot and dry. The landscape has huge contrasts, with deserts, mountains and fertile plains. Syria has rich history and is home to many ethnic and religious groups.

Conflicts have a huge effect on people and the environment. Thousands of people were killed as the city was attacked by forces on the ground and in the air.

People lost their homes, possessions and jobs. Electricity supplies have been cut off and there is no fresh water or sanitation. Waste piled up in the streets and rubble blocks the roads.

Microplastics - tiny pieces of non-biological plastic

Extraction - to remove something

Great Pacific garbage patch - a huge area of plastic and other waste floating in the Pacific Ocean and trapped by the circulation of ocean currents (gyres)

Gyre - a circular pattern of ocean currents

Climate change - changes in climate (temperature, rainfall as a result of natural causes or human activity)

Global warming - the recent increase in global temperatures

Greenhouse effect - warming of the lower atmosphere by heat released from Earth

Greenhouse gases - gases such as carbon dioxide and methane, which absorb heat from Earth

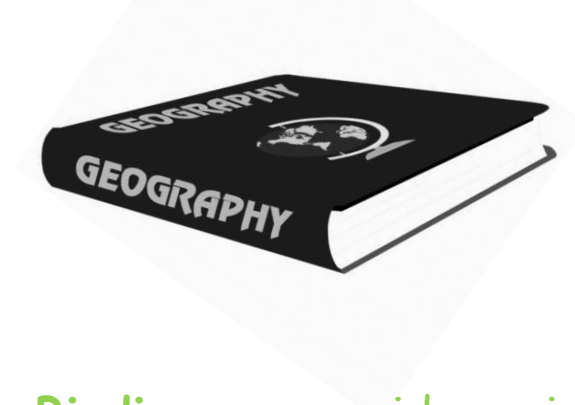
Delta - an area of low, flat land shaped like a triangle where a river splits into several branches before entering the sea

Unsustainable tourism - tourism that is harmful to the environment and the lives of local people

Mass tourism - many tourists in one place

Sustainable tourism - tourism that has a positive effect on the local environment, society and economy

Wilderness - a natural environment that has been largely undisturbed by human activity



Biodiverse - a wide variety of plants and animals

Invertebrates - animals without a backbone, such as worms, snails and crabs

Civil war - conflict within a country usually involving the government on one side and organised groups on the other

Internally displaced person - a person forced to move from their home but who remains in the country they were born in

Ice sheet - a huge, thick area of ice such as Antarctica and Greenland

Ice shelf - a thick, level piece of ice spreading out from the land into the sea

Pack ice - a large piece of ice mostly formed from frozen seawater