

WHAT IS THE SOLUTION TO POLLUTION?

KEY WORDS

Atmosphere	The gases surrounding the earth.
Recycle	Recycling is the process of reusing materials that would otherwise be thrown away by turning them into new products.
Pollution	Pollution is the introduction of harmful substances into the environment that can negatively impact living organisms, the environment, or human health
Plastic Pollution	Plastic pollution is the accumulation of plastic in the environment, which can harm humans, wildlife, and their habitats.
Plastic	Plastic is a strong, long-lasting material. It is made from chemicals.
Harmful	If something is harmful, it will cause damage or harm.
Consequences	Consequences are the results of actions to
Climate Change	Climate change is a long-term change in the Earth's weather patterns and average temperatures. It's also known as global warming
Crude Oil	A type of fossil fuel.
Solution	A solution is a response to a problem that will fix it.
Environment	The environment is the world, including plants and animals, that surrounds us and the conditions we live in.

what is POLLUTION?

Pollution is when harmful substances are released into the environment. These substances damage or harm living organisms and change the planet.

Pollution can happen naturally, such as result of a volcanic eruption or a tsunami or it can be caused by human activity,

Pollution is not only harming the environment and living things, it is also contributing to **climate change**.



what causes POLLUTION?

Human activity has harmed the Earth in many ways:

Air pollution

When harmful gases, chemicals and particles enter the air, the air becomes polluted. Air pollution can be caused by factories, cars, chemicals, fumes from spray cans and gas called methane, which is released from landfills where rubbish is buried. Air pollution is mainly caused by the burning of fossil fuels, such as coal, natural gas, and oil. Because of the large number of vehicles using fossil fuels in the world today, the levels of carbon emissions in the atmosphere are too high. That causes the surface temperature of the Earth to rise. This is called **global warming**.

Soil pollution

Soil pollution can be caused by the waste produced by factories and industries, acid rain and household waste and plastic.

Water pollution

Often dangerous chemicals are used to protect crops from pests. These chemicals can enter streams and affect large areas. Pollution of rivers, lakes, seas and oceans has a major impact on wildlife. Oil spills are one of the greatest causes of water pollution, as well as plastic.



Why are OCEANS important?

The ocean covers over 70% of the earth's surface. Oceans matter for many reasons:

Home to life:

Oceans are home to a huge variety of life, including tiny plankton and the blue whale. Scientists estimate that oceans contain 50–80% of all living things on Earth.

Climate regulation:

Oceans regulate the Earth's climate by: distributing heat from the equator to the poles, absorbing over 90% of the heat and 30% of carbon dioxide emissions from human activities, influencing and regulating the Earth's climate.

Source of food and jobs:

Oceans provide food and jobs for billions of people. Fish and seafood are a major source of protein in our diets, and seaweed is used to make chemicals and generate energy.

Source of water:

Oceans provide rainwater and drinking water through the water cycle.

Source of oxygen:

Oceans produce at least half of the oxygen we breathe. Tiny marine plants called phytoplankton produce roughly 50-80% of Earth's oxygen through photosynthesis.

Source of renewable energy:

The ocean can provide renewable energy through waves, tides, and winds.

How is pollution changing our OCEANS and impacting MARINE LIFE?

Pollution is changing the ocean in many ways, including:

Ocean acidification

The ocean absorbs carbon dioxide from the atmosphere, which makes it more acidic. This harms marine life, especially coral reefs and plankton, which are at the base of the food chain.

Plastic pollution

Plastic pollution harms marine wildlife in many ways, including:

- Entanglement: Animals can become entangled in plastic waste, causing suffocation, starvation, and drowning.
- Ingestion: Animals can ingest plastic bags or micro-plastics, which can be harmful.
- Habitat pollution: Entire habitats can be polluted with micro-plastics.

People who have INSPIRED change and action

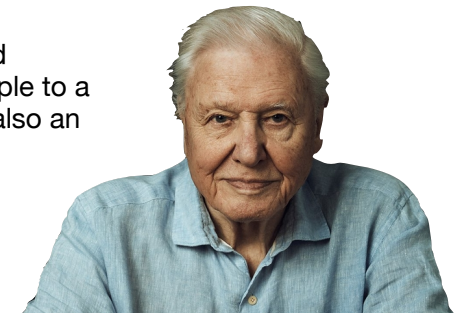
Greta Thunberg

Greta Thunberg is a young, environmental activist. When she was eight, she started learning about climate change. The more she learned, the more baffled she became as to why so little was being done about it. At the age of 11, Greta became so sad about climate change that she temporarily stopped speaking. Greta has Asperger syndrome, a condition that affects how people socialise. But Greta views her condition as a positive. She says it helps her see the world in black and white, and claims that there are “no grey areas when it comes to climate change.” In August 2018, Greta decided to take action. Instead of going to school, she made a large sign that read ‘SCHOOL STRIKE FOR CLIMATE’, and calmly sat down outside the Swedish parliament. Her aim was to make politicians take notice and act to stop global warming. Greta's strike was picked up by the Swedish media, and the word started to spread. Soon enough, tens of thousands of students from around the world joined her #FridaysforFuture strikes – skipping school on Fridays to protest against climate change. In March 2019, climate campaigners across the world, and inspired by Greta, came together to co-ordinate the first Global Strike for Climate. It was huge – over 1.6 million people from 125 countries took part! She's given speeches to politicians, to the EU parliament, the UK parliament, to protesters and more. She's appeared in documentaries and had loads of books and articles written about her. She's even been nominated for a Nobel Peace Prize!



Sir David Attenborough

Sir David Attenborough is a natural historian and broadcaster who has introduced millions of people to a variety of animals from around the world. He is also an important climate change campaigner. David Attenborough's earlier work focused on the wonder and beauty of the natural world, showcasing countless incredible plant and animal species in habitats around the world. But later on in his career, the true scale of the human-made climate and ecological crisis started to become known, and Sir David's later work shifted to show the impact of human activities on delicate natural environments. Since then, David Attenborough has become a champion of environmental causes and a powerful voice in the battle against climate change. He has spoken on behalf of reducing meat consumption, halting climate change and transitioning away from fossil fuels to clean energy sources. He is an ambassador for the World Wildlife Fund (WWF) and was a key speaker at the COP26 climate change conference, where he urged world leaders to take action in the fight against climate change.



WHY should we look after the world?

People have different beliefs about why we should look after the planet and care for the world. Some of these beliefs are centred around religious teachings and understandings.

Christians

Christians believe that God created the world and everything in it. They believe that God created humans to enjoy the world and to act as stewards, caring for everything in it and looking after it for him.

Muslims

In Islam, Muslims are considered to be khalifahs, of the Earth, and are tasked with caring for the world that Allah created. This includes taking a proactive role in caring for the environment and looking after other creatures.

Humanists

Humanists are a group of people who are non-religious and believe that scientific evidence is the best way to answer moral questions. They are concerned about the environment and climate change, and believe that people should take responsibility for environmental issues and maintain the world as a good place for future generations.

Hindus

Hinduism teaches that accepting responsibility for the natural world brings good karmic consequences for everyone. Hindus care for the world because they believe the world is sacred and they are responsible for its future.

Jews

Jewish tradition teaches Jews to care for the planet in order to preserve that which God has created. They believe they are stewards.



How do our actions have CONSEQUENCES?

Actions and consequences are a part of everyday life, and every action has a consequence (result), whether it is positive or negative.

Our actions have consequences and the choices we make can contribute to the problem of pollution or help to tackle it.

For example, if we choose to recycle our waste or reduce the amount we create, we are positively helping to tackle the problem of pollution. However, if we use lots of single-use plastics and do not recycle our waste, we are negatively contributing to the problem.



RECYCLE, REDUCE, REUSE

Recycle

Recycle your rubbish so it can be made into something new. Paper, plastic, metal and food waste can all be recycled. Rinse it first and make sure you put it in the right bin. Different coloured bins are for different types of waste.



RECYCLE

Reduce

Reduce the amount of waste you create. For example, instead of wrapping sandwiches in cling film or foil, use a small, reusable lunch box or an empty butter tub. Instead of using plastic straws or bottles, buy a reusable ones to reduce the amount of waste you create.



REDUCE

Reuse

You can reuse waste to turn it into something new. For example, cereal boxes can be used for art projects. A glass jar can be used to collect spare change. You can reuse plastic bags rather than buying a new one each time.



REUSE

DALE CHIHULY

Dale Chihuly is an internationally recognised artist. He uses many different mediums to express his ideas including ice, plastic, neon, paint, ink, charcoal, and pencils, but he is most well-known for his sculptural work in glass. He uses a technique called glass-blowing, which involves melting and blowing stained glass to create sculptures.



What is CLIMATE CHANGE and what is the IMPACT?

Climate change is a long-term change in the Earth's weather patterns and average temperatures. It's also known as global warming. The Earth's atmosphere is becoming thicker, which is causing the planet to heat up, which has consequences.

Global warming has a major impact on our planet; the Earth's climate is changing.

- Sea ice and glaciers are melting, which leads to **rising sea levels**.
- **Extreme weather** events such as hurricanes are happening more often.
- Many animal and plant species are in danger of **losing their habitats** and are at risk of becoming extinct.
- **Farming** can be affected by drier and warmer conditions, which could lead to food shortages.
- Some rivers, which depend on snow supplies, could be affected and experience water shortages, as well as places that depend on water supplies from glaciers.



WHAT IS THE PROBLEM WITH PLASTIC?

Plastic pollution is excess plastic that, due to its durability and the sheer amount produced, can now be found in the sea, on beaches, in lakes and rivers. Plastic bottles and containers now litter the sides of many roads and pose a threat to wildlife and ecosystems.

Plastics are made from fossil fuels, finite and environmentally damaging resources. There are many problems with plastic, with the main issue being its non-biodegradable nature (some plastics can take up to 1,000 years to biodegrade).

Single-use plastics are, therefore, a big problem. Single-use plastics are plastic products that are made from fossil fuel-based chemicals, that are meant to be used once and disposed of right after. Bottles, straws and shopping bags are all single-use plastics. So, what happens is, single-use plastics are produced and used in mass, around the world, every day. This, hand in hand with improper disposal (non-recycling) and littering, produce plastic pollution on a global scale.

Today, plastic pollution is the biggest issue affecting the marine environment. As marine life become entangled with plastic in their habitat, plastic pollution poses a deadly threat to wildlife such as fish, whales and dolphins. Mistaking plastic for food, plastic pollution also poses a deadly threat to seabirds.

As the rate of plastic production has rapidly increased and continues to rise, there's simply too much disposable plastic out there for the world to keep up. It's almost impossible to implement proper disposal strategies that match the rate of production and waste. Low recycling rates and poor waste collection systems, therefore, are one of the most significant contributions to plastic pollution.



