

# World Climates

Year 6

Spring 2 – Week 2



# Wednesday 3<sup>rd</sup> March 2021

L.O: To gather information on how a Climate can change.

## Success Criteria

- To note down the reasons experts believe causes global warming.
- Explain why climate change is not good for the Earth.
- To identify what can be done to combat climate change.

# What did you learn on Monday?

1. What are the two Hemispheres?
2. What is the difference between Weather and Climate?
3. Name the six different Climates.
4. What are Biomes?

# What did you learn on Monday?

1. What are the two Hemispheres?

**Northern Hemisphere and Southern Hemisphere.**

2. What is the difference between Weather and Climate?

**Weather changes daily and it is the temperature and conditions for the day. Climate is the average weather condition of a place over a long period of time.**

3. Name the six different Climates.

**Polar, Temperate, Arid, Tropical, Mountainous and Mediterranean.**

4. What are Biomes?

**Biomes are areas of our planet with similar climates, landscapes, animals and plants.**

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2. Name an important line of Latitude that can be found in the middle of the Earth?
3. Name three other important lines of Latitude.

# What did you learn on Tuesday?

1. What does Latitude mean?

Lines of latitude (also known as parallels) circle the Earth from east to west. These invisible lines are all the same distance apart. One line to the next is known as 1 degree.

2. Name an important line of Latitude that can be found in the middle of the Earth?

**The Equator is an important line of Latitude.**

3. Name three other important lines of Latitude.

**The Tropic of Cancer, the Tropic of Capricorn and the Arctic Circle.**

# Keywords

**greenhouse  
gas**

**carbon  
dioxide**

**water  
vapour**

**climate  
change**

**environment**

**government**

**methane**

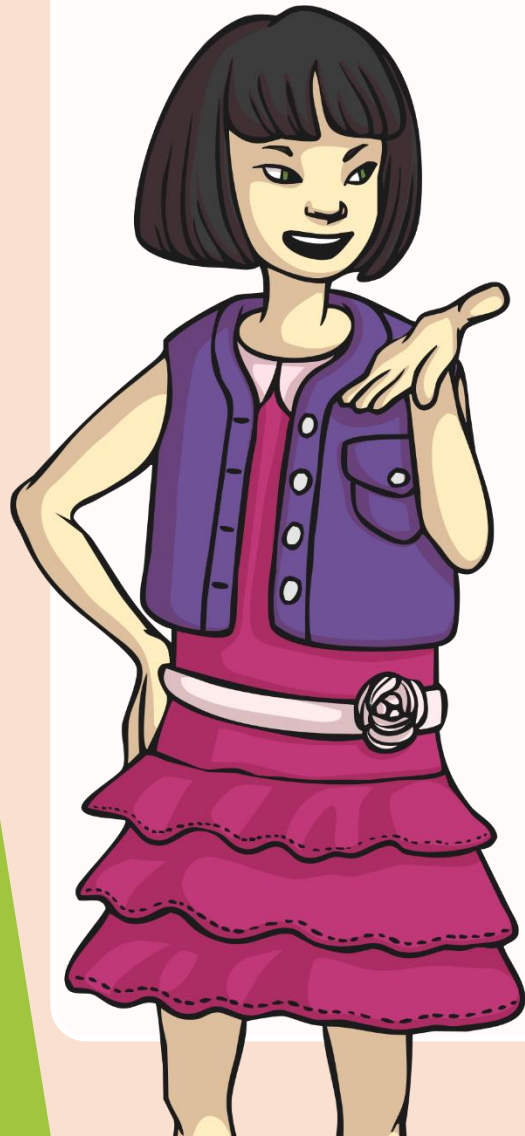
**nitrous  
oxide**

**carbon**

**drought**

**agriculture**

# What Is Climate Change?



Climate change is a term used by experts when describing the way that both weather and climate systems are changing as a result of mankind's industrial activity across the world.

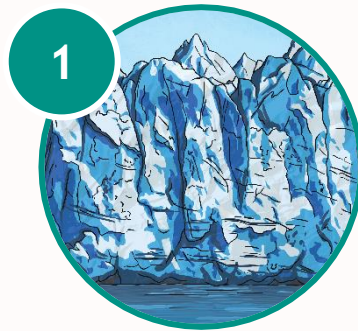




# What Is Being Affected By Climate Change?

There are a lot of different environmental changes that are happening as a result of climate change. Some are big and some are small.

These include:



1

Shrinking glaciers



2

Rising sea levels



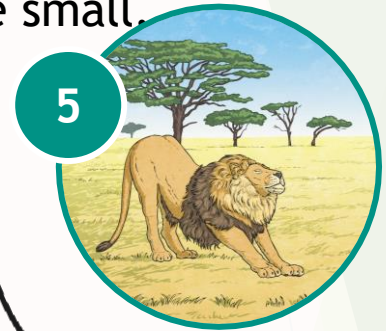
3

Plant species shifting locations



4

Trees and plants flowering much earlier in the year



5

Animal species becoming endangered

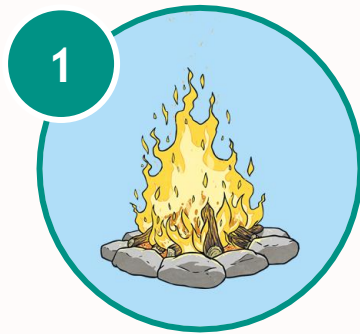


# Why Is the World's Climate Changing?

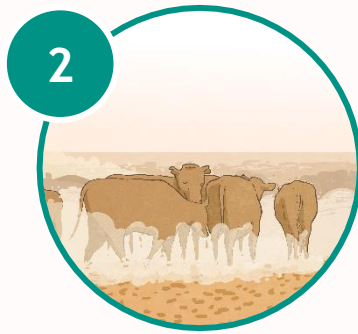
Experts believe that humans are the main reason why the world's climate and weather are changing.

A key contributing factor is the creation of greenhouse gases caused by human activities.

These include:



**Burning  
fossil fuels**



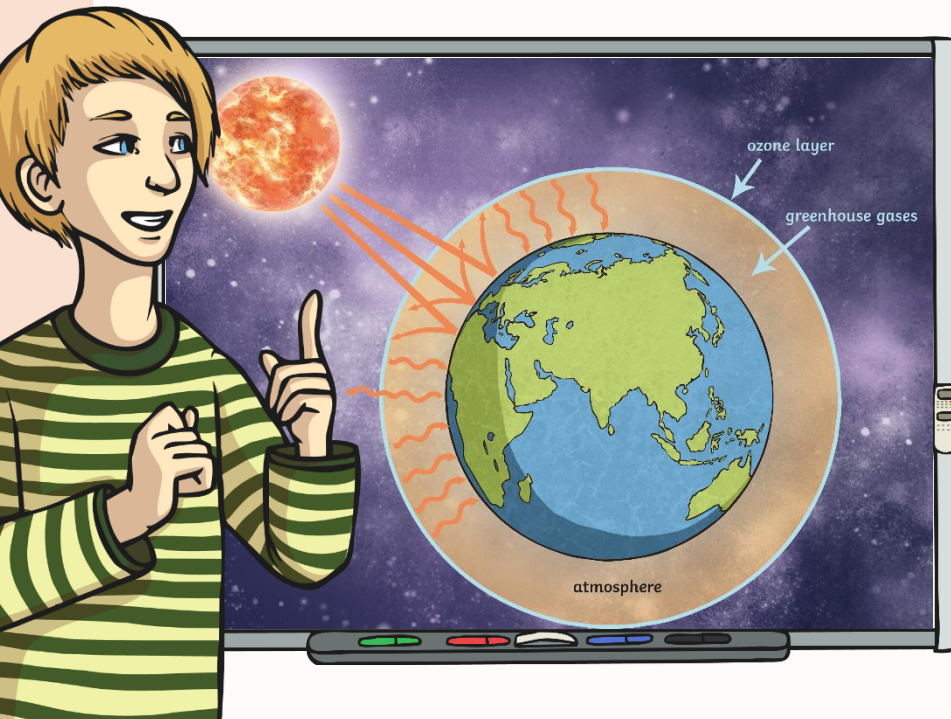
**Beef cattle  
farming**



**Agricultural  
fertilisers**



# How Do Greenhouse Gases Change the Climate?



Greenhouse gases 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.

Since the Industrial Revolution in the 18<sup>th</sup> Century, the planet's average temperature has increased by around one degree.

# Where Do These Greenhouse Gases Come From?

## **Water Vapour (H<sub>2</sub>O)**

The most abundant greenhouse gas, created through the heating of water.

## **Carbon Dioxide (CO<sub>2</sub>)**

Created through the burning of substances containing carbon, such as fossil fuels.

## **Methane (CH<sub>4</sub>)**

Produced by cattle, chickens and pigs. As the global population increases, the more of these creatures are farmed and the more gas they produce.

## **Nitrous Oxide (N<sub>2</sub>O)**

Used in rocket fuel, racing cars, hospitals and dentist surgeries. Also found in agricultural fertilisers.

## **Hydrofluorocarbons (HFC)**

Found in air conditioning and refrigerators.



# How Do Greenhouse Gases Change the Climate?

It is very important to reduce the production of the gases that are creating the greenhouse effect. This is reliant on governments across the world creating laws and strategies to meet certain targets in pollution reduction.

In developed countries, such as those in the European Union, plans and laws are already in place. In developing countries, however, there is still a greater dependency on industries that create greenhouse gases.

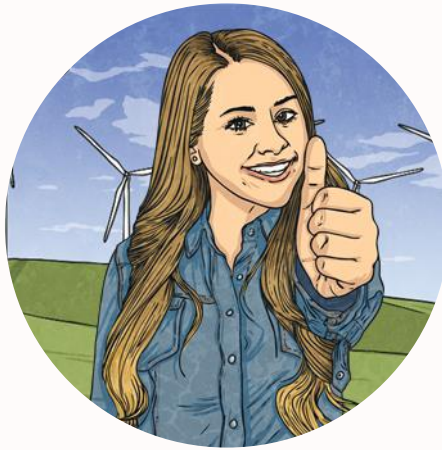


# How Do Greenhouse Gases Change the Climate?

Some countries, including the UK, have committed to reducing emissions and finding alternative energy sources, including:



building wind farms, solar farms and other means of creating electricity from renewable energy;



supporting the manufacture and purchase of electric vehicles;



committing to phasing out the manufacture of petrol and diesel powered transport.

# What Is Being Done to Combat Climate Change?

Demonstrations and rallies have always been an important way of people making their voices heard and their opinions known.



In early 2019, young people became involved in demonstrations in the UK.

Thousands of school-aged children refused to attend school so that they could attend organised demonstrations in major cities.

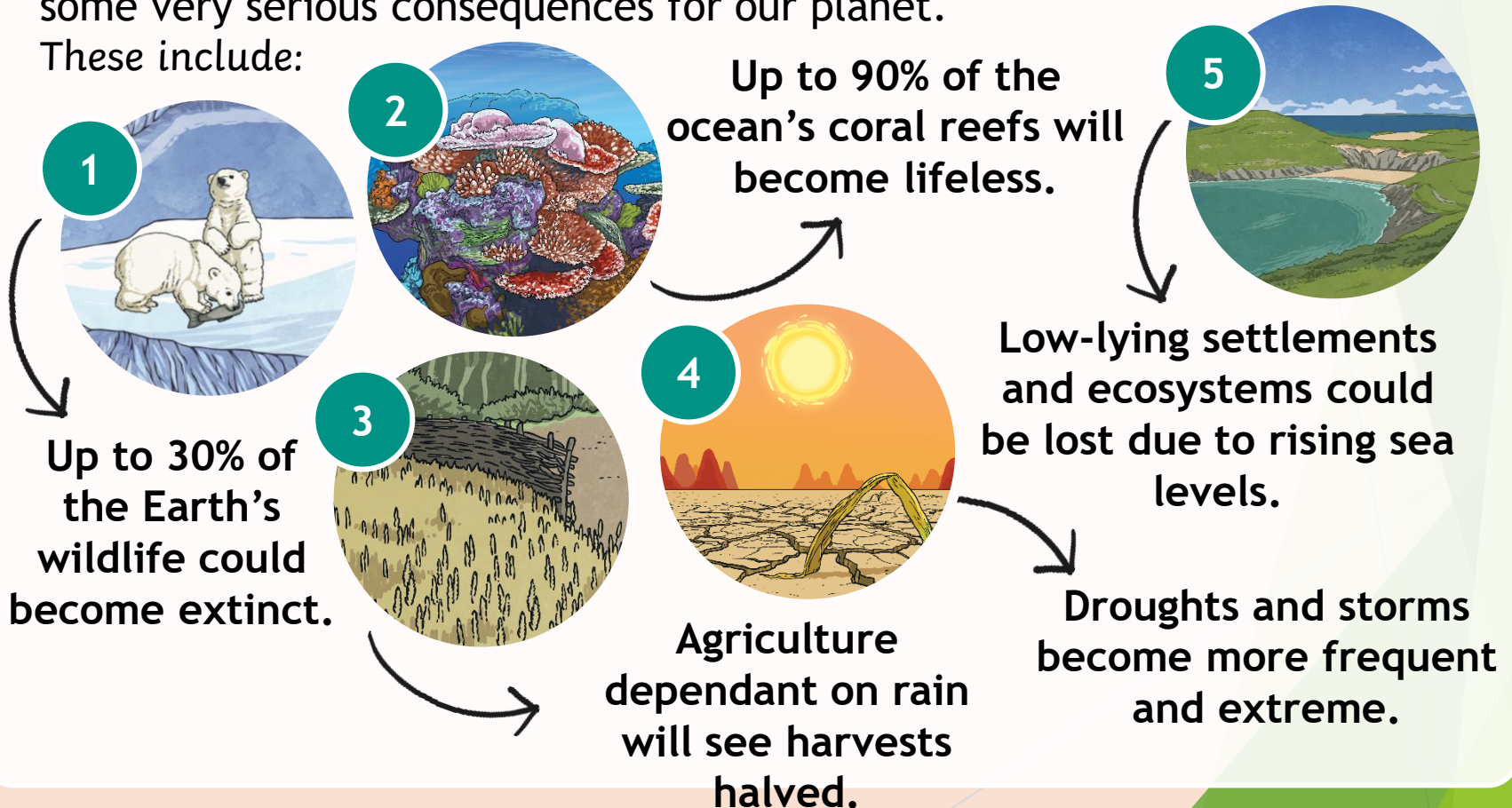
Many people believed that the children should have faced consequences for missing time from school, but some believed that their protests were important, as it is the younger generation who will feel the impact of climate change more severely.



# What Are the Consequences of Not Doing Enough?

Without global warming slowing down, experts have predicted there are some very serious consequences for our planet.

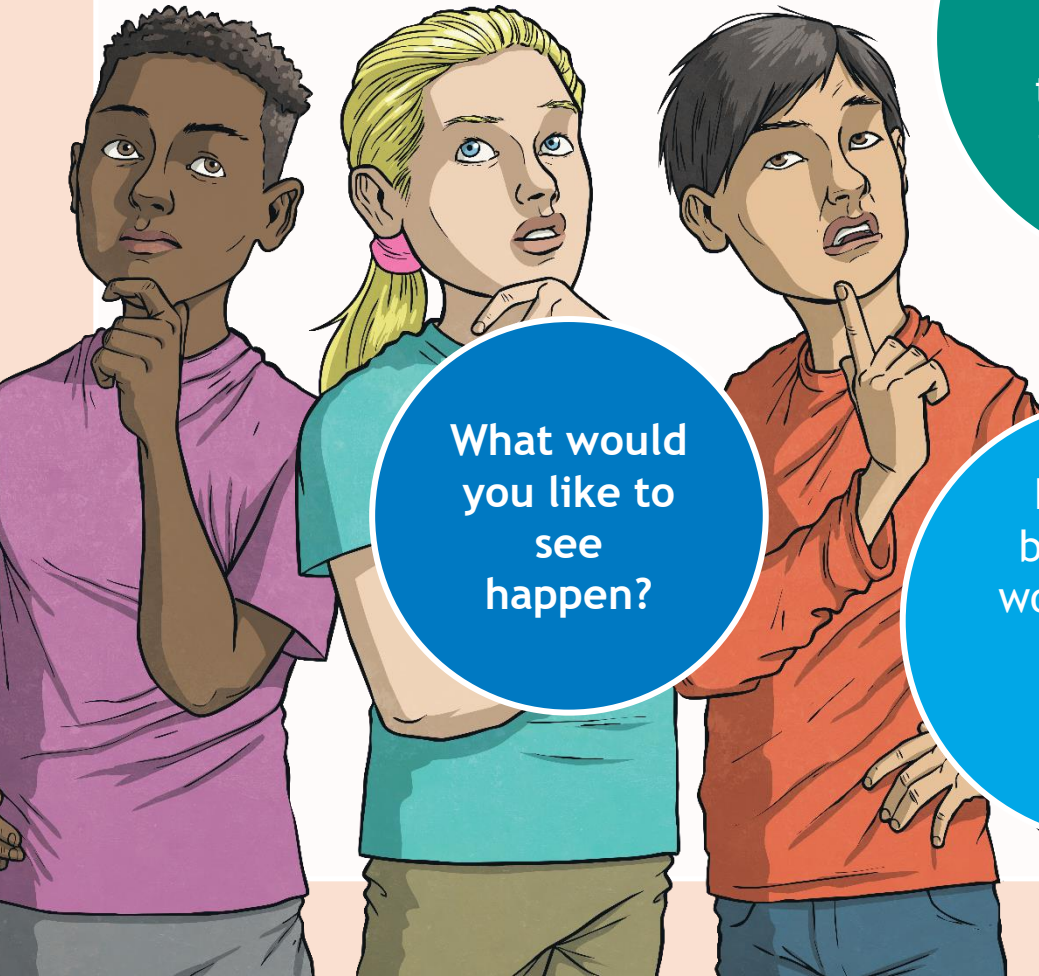
These include:





# Main Activity

## What Do You Think?



Were the young protestors right to take time out from their learning to protest?

What would you like to see happen?

Is enough being done worldwide to combat climate change?

Is enough being done in this country to combat climate change?

# P4C Thinking Deeper

Do you think Global Warming's effects on our planet can be changed?



Email your completed work to your  
class teacher!

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