

## I should already know:

The difference between weather and climate. The different climate zones. The cause of different climates.

## I will learn:

- Evidence of climate change
- Natural causes of climate change
- Human causes of climate change
- Who is to blame?
- The general impacts of climate change.
- Case study of flooding in Bangladesh
- Case study of climate change in the UK
- Local responses
- National and international responses

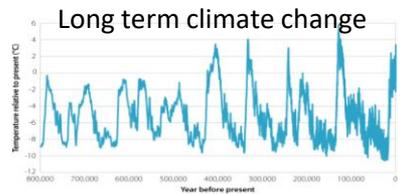
## This will help in the future:

Resource management (year 8)

Natural hazards (year 9)

## Key Words

Climate	The average weather conditions over a long period of time
Climate change	A change in global or regional climate patterns
Global warming	The gradual increase in the overall temperature of the earth's atmosphere
Fossil fuels	A natural fuel such as coal or gas formed from the remains of organisms that lived long ago
Greenhouse gases	Gases in the air that trap energy from the sun e.g. carbon dioxide and methane
Greenhouse effect	Warming of the earth caused by the trapping of the sun's energy by greenhouse gases
Atmosphere	The mixture of gases that surrounds the earth
Primary effects	The immediate consequences of something happening
Secondary effects	Things that occur days, weeks or months after something happens

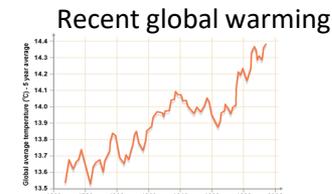


Over the past 800,000 years the earth's climate has fluctuated, with periods of warmer temperatures and periods of colder temperatures.

**More specifically...** 300,000 years ago, average temperatures were 4°C warmer than today (interglacial). 420,000 years ago, average temperatures were 9°C colder than today.

**Historical records:** E.g. Napoleon's army froze in the Little Ice Age

**Paintings:** E.g. paintings from 1677 show markets on the Thames!



More recently the earth's climate has been rapidly warming. *In 1883, the average temperature was 13.5°C, whereas in 1960 the average temperature had risen to 14.0°C. By 1985, the average temperature had risen to almost 14.4°C.*

**Thermometer records:** The 20 warmest years on record have all come since 1995.

**Satellite images:** Arctic ice cover has decreased by 4% since the 1970s.

**Sea level rise:** Melting ice sheets has resulted in sea level rise.

## Greater Depth Challenge

Make a plan for how you can help tackle climate change. What recommendations would you make to your school, your friends and your family?

## Further Reading

- Climate challenge: [http://www.bbc.co.uk/sn/hottopics/climatechange/climate\\_challenge/](http://www.bbc.co.uk/sn/hottopics/climatechange/climate_challenge/)
- Climate change in the news: <https://www.theguardian.com/environment/climate-change>

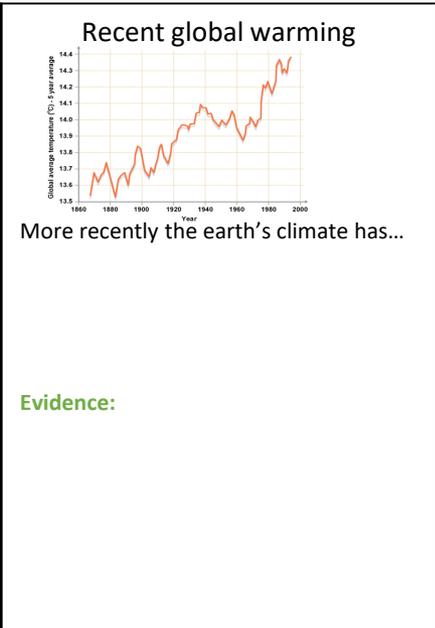
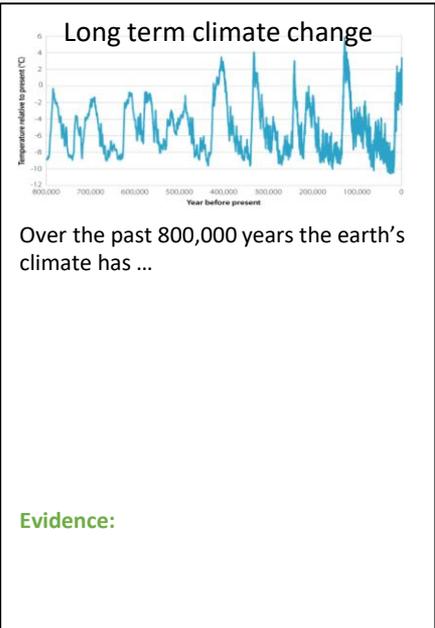
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