BBC BITESIZE FOR TEACHERS

Explain this... Weather, climate and climate change

In partnership with Geographical Association

Video	Central or big idea	Think, work and apply like a geographer	Questions to explore	Key learning outcomes
KS1/KS2 Primary Geography: Explain this... Weather, climate and climate change	The Earth's weather and climate varies across its surface	• Compare • Diversity • Interconnect • Sustainability	• What is the difference between weather and climate? • Is the weather and climate the same across the whole planet? • Which climate do we experience in the UK and what is it like? • How does the climate vary across the planet? • Where in the world would you expect to find tropical climates? How about the other climate zones? • Why are there no permanent residents in Antarctica? • How is our climate changing and what impact does this have?	• Know that there is a difference between weather and climate • Know how to distinguish different climate zones • Know that the climate is changing and that this affects life on Earth *This short film is suitable for teaching KS1 and KS2 in England and Wales, Early and 1st and 2nd level in Scotland and Foundation and KS1 in Northern Ireland.*

Key geographical vocabulary and definitions	Suggested learning opportunities	Ideas for going further and links
Climate Weather Climate zone Habitat	• Make notes on the different characteristics of each climate zone under the headings: temperate, polar, mediterranean, hot/dry (desert) and tropical. • Discuss how each type of climate might affect what happens there and how people might adapt to the conditions. • Create a short argument for which of the four climates would be the easiest or most challenging to live in. • Mind map what might happen within each climate zone if the temperature increases- think in terms of animals, plants and crops, water supply and life style.	Investigate and map different climate zones, for example their average rainfall and temperature, relative size, distribution and how these are (and will) change. Explore what actions we could take to limit our contribution to climate change. KS1/KS2 Primary Geography: The seasons KS2 Geography: Weather, climate and seasons

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Background information for teachers
This short film is a useful tool to introduce the difference between climate and weather, with brief descriptions of some of the climate zones that can be found across the world. Climate zones are regions with similar long-term patterns of weather - usually measured over at least 30 years. A key reason that we have different climate zones is that the Earth is tilted on its axis as it orbits the Sun. Incoming energy from the Sun is more concentrated at the Equator than it is towards the Poles, due to the curve of the Earth's surface. You can demonstrate this using a powerful torchlight and a globe. Draw around the beam of light as it hits the globe and notice how much smaller an area it covers at the Equator than it does towards polar regions. Average global temperatures show that generally, hot climates are found towards the Equator and cold climates towards the Poles. This temperature difference causes global circulation patterns that influence rainfall. Other factors influence temperature too, such as altitude, the shape and size of the land and how near or far a place is to the ocean. Mount Kilimanjaro is close to the Equator but its summit has a cold climate because of its altitude. Latitude helps identify where some climates are to be found. Hot, wet climates are found within the Tropics: it is hot and very wet all the year round close to the Equator. Cold, dry, polar climates are found around the Poles - but also at the top of some mountains.