







# Year 5:

## GEOGRAPHICAL CONTEXT: Extreme Weather



### KEY VOCABULARY:

Weather term	Means...	Units used...	Measured using...
Air pressure 	How 'heavy' the air is	Millibars (mb)	Barometer
Cloud cover 	How much of the sky is hidden by clouds	Oktas	Your eyes; satellite images
Precipitation 	Water falling from the sky in any form (rain, hail, Sleet, snow)	Millilitres (mm)	Rain gauge
Temperature 	Exactly how hot or cold it is	Degrees Celsius (°C)	Thermometer
Visibility 	How far ahead we can see, for example on a foggy day	Metres or Kilometres	Visibility meter
Wind direction 	Where the wind is blowing from	Compass point (N, NW, S, SW etc.)	Weather vane
Wind speed	How fast the wind is blowing	Kilometres or Miles per hour (kph or mph)	Anemometer

### WHAT?

What is extreme weather?

What is a tornado?

Where and what is a Tambora?

Pupils should be taught to: describe and understand key aspects of: physical geography, including: climate zones, biomes and vegetation belts, rivers, mountains, volcanoes and earthquakes, and the water cycle



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<https://www.rgs.org/schools/teaching-resources/extreme-weather/>

### Lesson 1

#### Key Questions

- What is an extreme weather event?
- What kind of weather might be involved in an extreme weather event?
- What kind of impacts might a severe weather event have?
- What is a data base?

#### Key ideas

Extreme weather is when a weather event is significantly different from the average or usual weather pattern. This may take place over one day or a period of time.

Extreme weather can have impacts on people and environments. The Tempest Database has documented accounts of extreme weather going back over hundreds of years from a rich variety of diverse sources that include: newspaper reports; diaries, letters and postcards, as well as official meteorological records. This data base can be searched using dates, types of weather and impacts as queries and the results mapped.

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### Lesson 2

#### Key Questions

- What is a tornado?
- How do they form?
- Where and when are they likely to happen?
- What impact can a tornado have?
- Which parts of the UK have experienced a tornado?
- Why are they unusual events in the UK?

#### Key ideas

A tornado is a rapidly rotating column of air stretching between the base of a storm cloud and the Earth's surface. Tornadoes can form if lots of conditions are just right. These conditions can vary slightly but require very unsettled weather conditions.

Tornadoes occur in lots of places around the world, most usually in the continent of North America. Central USA has a region named 'Tornado Alley', because of the frequency and intensity of tornadoes there. In this region, warm air from the Gulf of Mexico in spring and summer meets with cool air from Canada, leading to the build-up of powerful storms which can, if the right conditions are present, produce tornadoes.

The most violent tornadoes are usually found in the USA, Canada and Bangladesh, it is unusual to find them elsewhere. However, they have been known to happen in the UK and the Tempest data base has some documented evidence of where, and of the impacts caused.

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Lesson 3

### Key Questions

- Where and what is Tambora?
- What is a stratovolcano?
- What happens when a stratovolcano erupts?
- How might this affect global weather patterns?
- How did the eruption from Tambora affect the UK?
- What was the effect on people's everyday lives?

### Key ideas

Stratovolcanoes can produce powerful eruptions with an associated range of devastating impacts for people living nearby and far away. When Tambora erupted in 1815, NASA reports that it put enough ash into the atmosphere to reduce incident sunlight on the Earth's surface, causing global cooling.

This event, then resulted in what became termed 'The Year without a Summer', when much hardship was reported across the UK as cold and rain ruined crops and left many hungry.

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