

**Week 1: Types of Extreme Weather**

- Extreme weather is when a weather event is significantly different from the average or usual weather pattern.
- Extreme weather may take place over one day or a period of time.
- There are many types of extreme weather:
- Tornadoes
- Droughts
- Tropical storms such as hurricanes or cyclones
- Flooding
- Blizzards
- Heatwaves

**Week 2: Tropical Storms**

- The strongest tropical storms are called hurricanes, typhoons or tropical cyclones.
- The different names all mean the same thing but are used in different parts of the world.
- If these huge storms start in the Atlantic, off the west coast of Africa, they are called hurricanes.
- In an average year, over a dozen hurricanes form over the Atlantic Ocean and head westwards towards the Caribbean, the east coast of Central America and the southern USA.
- Hurricanes need a lot of heat to form and a sea surface temperature of at least 27°C, which is why they usually occur over tropical seas.
- Hurricane wind speeds can reach over 120 km/h (75 mph).

**Week 3: The Impact of Tropical Storms**

- The primary effects of a tropical storm are the immediate impacts of strong winds, heavy rainfall and storm surge.
- People are injured or killed by debris being blown around or drowning.
- Buildings are destroyed or damaged.
- Electric supplies are cut off due to power lines being destroyed and water supplies are contaminated.
- Secondary effects are the impacts following the storm:
- People being left homeless.
- Unemployment caused by businesses being damaged.
- Tourism is effected.
- Crops are destroyed causing a shortage of food.

**Week 4: Droughts**

- Droughts occur when there is abnormally low rainfall for a long period of time.
- Droughts can last from weeks to months and even years.
- Human activity increases the impact of droughts.
- Agriculture – using large amounts of water to irrigate crops removes water from lakes, rivers and groundwater.
- Dam building – large dams can be built across a river to produce electricity and store water in a reservoir. This can reduce river water flowing downstream and cause droughts.
- Deforestation – removing trees can reduce the amount of water stored in the soil as rain tends to fall and wash off the land as surface run-off. This leaves the ground vulnerable to erosion and desertification which can lead to drought.

**Week 5: The Impacts of Droughts**

- Approximately 780 million people worldwide lack a reliable and sufficient water supply.
- Droughts have serious impacts.
- A lack of clean and reliable water can cause people in developing countries to drink contaminated water and catch disease.
- Crops and livestock are lost and this can cause famine.
- With less moisture and rainfall, wildfires can become common, damaging crops, buildings and even causing death.
- Conflicts or war between people and countries can occur when pressure is put on water supplies.

**Week 6: Climate Change**

- Climate change can increase the frequency of heat waves, floods and drought conditions around the world.
- Europe and the UK would likely experience hotter summers.
- There will be an increased demand for water in hotter summers putting pressure on water supplies.
- Hurricanes and other storms are likely to become stronger and more frequent as global warming takes effect.
- Precipitation (rain and snowfall) has increased across the globe on average and may continue to rise.