

What is 'extreme weather'?

Extreme weather refers to different types of weather which are very powerful and can be very dangerous to the environment, such as flooding, drought and hurricane. Extreme weather can cause damage and harm to buildings, infrastructure and people.

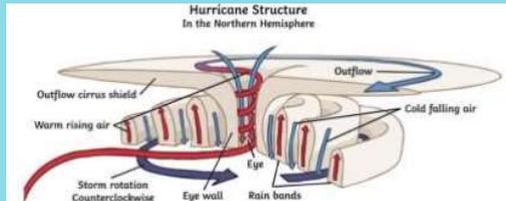


Tropical storms

Tropical storms develop in tropical areas of oceans. Types of these storms include hurricanes, typhoons and cyclones.

Hurricanes

A hurricane is a huge storm formed of powerful wind and lots of rain. They can be up to 1000km wide! The "eye" of the hurricane is an area at the centre which looks like a black dot from above. Hurricanes are named after alternating letters of the alphabet, some of the female and some male names.



Hurricanes are formed by the following processes:-

1. Once the ocean water reaches at least 27°C, the warm air rises quickly, causing an area of very low pressure.
2. As the air continues to rise quickly it draws more moist air up from above the ocean leading to strong winds.
3. The rapidly rising warm air spirals upwards, cools, condenses and large cumulonimbus clouds form.
4. These clouds form the eye wall of the storm and produce heavy rainfall.
5. In the centre of the storm, cold air sinks forming the eye of the storm - here, conditions are calm and dry.

Key Vocabulary

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| Climate | The usual weather conditions in a place. |
| Temperature | The degree of heat or cold of an object or an environment. |
| Air | The mixture of gases that surrounds the earth |
| Wind | Air as it naturally moves over the surface of the earth. |
| Humidity | Water vapor or moisture in the air. |
| Atmosphere | The gases surrounding the earth or other similar objects in outer space. |
| Troposphere | The innermost layer of the atmosphere, up to six to twelve miles above the earth's surface, in which clouds and other weather conditions occur. |
| Tornado | A storm of very strong winds that often form a dark cloud that is shaped like a funnel. Although it does not last long, a tornado destroys everything in its path. |
| Drought | A long period with little or no rain. |
| Typhoon | A hurricane that occurs in the western Pacific area and the China Sea. |
| Cyclone | A storm with very strong winds that turn around a center of low pressure in the atmosphere. |
| Hurricane | A powerful storm with heavy rains and winds that blow in a circle at 73 miles per hour or more. |
| Flooded | An overflow of water onto land that is not normally under water. |
| Hailstones | Round pieces of frozen rain or storm of frozen rain. |
| Blizzard | A heavy snowstorm that lasts for a long time. |



Flooding

A flood is an overflow of water on normally dry ground. This occurs due to an overflowing river, a dam break, snowmelt or heavy rainfall. Flash floods are floods which take place very quickly and are difficult to prepare for. Major floods can be catastrophic: killing and injuring many people; destroying their homes, schools, hospitals, businesses and farms. The world's most deadly flood took place in 1931 where more than 3.5 million people died as a result of flooding and the subsequent starvation and spread of disease along China's Yangtze river.

Floods are occurring more frequently due to climate change. Climate change refers to the process of our planet heating up. This will impact people and wildlife globally as some could find they are unable to adapt. It can also make weather more extreme and unpredictable.



Tornadoes

Tornadoes are similar to hurricanes but are formed over land rather than the sea. They are sometimes called twisters due to their shape. Hurricanes are longer than tornadoes but they can still cause great devastation. Tornadoes regularly occur in Oklahoma - it is known as "Tornado alley".



Snowstorms



Heavy snowstorms occur in parts of Canada and America. They can impact infrastructure and daily lives (such as children travelling to school). Many people, particularly the elderly or young children, can become very ill with the freezing temperatures and develop conditions such as pneumonia. An example of a severe snowstorm is storm Jonas. It took place on Friday January 22 2016 and hit almost a dozen East Coast states killing 48 people

Wildfires

A wildland fire, or wildfire, is an uncontrolled fire that burns in a forest, grassland or sparsely populated area. They can take place on the edge of urban areas and cause great devastation. Wildfires can start from natural causes such as lightning or accidentally by humans. Sadly, bushfires take place regularly in Australia. Since 1851, 800 people have been killed by wildfires and millions of animals, such as koalas, have been killed.

