Name

Here we look at the geography topic of weather and we learn all about observing and measuring the weather that we see every day. From measuring the temperature and rainfall to the cloud cover, wind speed and wind direction, you can build up an accurate idea of what the weather is like.

Severe weather refers to any weather event which can cause damage to property, loss of life, or social upheaval. They can occur over a large area, e.g. drought, or they can be quite localized, like a heavy downpour. Extreme weather can include, but not be limited to: heat wave, drought, cold wave, blizzards, ice storms, heavy snow, cyclones, hurricanes, typhoons, tornadoes, storms, heavy rain, flooding, landslides, hail, dust storms and wild fires.

Severe weather involving heat

Heat waves initially sound like fun as the weather is warmer and people can enjoy being outside more. However, the heatwave of 2003 is attributed to 70,000 deaths across Europe.

Heat wave

Different countries define a heatwave in different ways however the World Meteorological Office says when the daily high temperature exceeds the average daily high by five degrees Celsius for five days, then you have a heatwave.

Drought

Droughts build up over time and so they do not appear on first glance to be a disaster. However, droughts, can cause billions worth of damage to the farming industry.

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Due to modern farming methods and forms of communication and transport, droughts to not lead to the terrific loss of life witnessed in history. Although you do not have to go too far back in history before you see droughts causing major loss of life. Between 1900 and 1941, there were 5 droughts which killed in excess of two million people each around the world.

A wildfire is an uncontrolled fire in an area of combustible vegetation. Wildfires, are large, they can spread quickly, and they can jump roads, rivers, firebreaks. The US will have between 60,000 - 80,000 wildfires in an average year and Australia is particularly susceptible to them.

Wildfire

Wildfires can be started naturally by lightning storms, volcanic eruptions and the sun's rays being focused through a discarded glass bottle. They are often started by human actions, through a discarded cigarette, arson, slash and burn farming and arcing from power lines.

Severe weather involving cold

A blizzard is defined as heavy snow and strong winds for a prolonged period of time. It leads to reduced visibility and it can extensively disrupt transportation networks. They can cause the most disruption where snowfall is rare and the infrastructure to deal with heavy snowfall is not normally in place.

Blizzard

Heavy snow

The northern most of Japan's main islands, Hokkaido, has over 20 metres of snow fall during the winter. The people of Hokkaido have learnt over the years how to adapt to the weather and they take it in their stride. Heavy snow causes the most damage in places that are not used to it.
Heavy snow can disrupt transport networks by blocking roads and closing airports. In mountainous regions it can cause avalanches and in extreme cases, it can cause buildings to collapse under the weight of the snow.

Heavy snow, Hokkaido, Japan

Don't mess with ice storms. Ice storms occur when freezing rain lands on something that is below freezing temperature covering everything with a thin layer of ice. The weight of the ice can bring down trees, power lines and damage buildings.

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The word heatwave is commonly understood and frequently used. The word cold wave (meaning: the opposite of heatwave) is less well known and not so easily understood. So when polar vortex started being used by the media, you can imagine even more confusion. The word cold wave and polar vortex refer to an extended period of cold weather. In this photo, we can see the Niagara Falls freezing during an extended period of cold weather.

Polar vortex

Severe weather involving storms

Hurricane / Cyclone / Typhoon

Hurricanes, typhoons and cyclones are often mistaken for being different types of storms but they are in fact the same phenomenon, the difference being where they start and which land areas they threaten. Hurricanes form in the Atlantic, Typhoons form in the Pacific and Cyclones form in the Indian Ocean. (This is mostly correct but there are some exceptions). Hurricanes hit North America, Cyclones hit South Asia and Australasia, whilst typhoons hit East Asia.
Tornados are extremely powerful and can be extremely localised. They have been observed on every continent except Antarctica. They develop in warm places, relatively close to the equator and they are less common at high altitudes.

Tornado Dust storms large hailstones Storm clouds Hail damage

Now look again at the picture and answer the following questions

Observe	Infer	Predict

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