


### Key vocabulary


<b>Hurricane</b>	Strong rotating winds that form over water.
<b>Tornado</b>	Strong rotating winds that form over land.
<b>Tsunami</b>	A large powerful wave.
<b>Cumulonimbus cloud</b>	A cloud forming a towering mass with a flat base at fairly low altitude and often a flat top, as in thunderstorms.
<b>Electricity</b>	The flow of an electric current through a material.
<b>Battery</b>	A device that stores electrical energy as a chemical.
<b>Circuit</b>	A pathway that electricity flows through.

**Complete Circuit**




Electricity can flow. The components will work.

**Incomplete Circuit**



There is a break in the circuit that prevents the electricity from flowing. The components will not work.

**mains-powered**



**battery-powered**



### Tornadoes

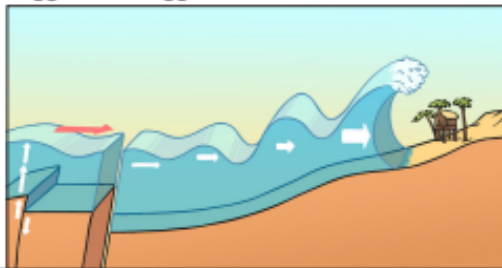
- A tornado is a swirling funnel of air that forms when warm air rises from near the ground into big **cumulonimbus clouds**.
- There can be thunder and lightning at the same time.
- You can see tornadoes due to the dust and water droplets caught in the clouds.
- Storm chasers are film-makers and scientists who head towards the storms. They film the tornadoes and collect data about them.
- Most tornadoes happen in Tornado Alley in America - more than 500 each year.
- Tornadoes can happen in the UK but only around 30 per year.



Examples of Electrical Conductors	Examples of Electrical Insulators
 <p>water metal</p>	 <p>wood plastic paper rubber glass fabric</p>

### Tsunamis

- A tsunami is a giant wave caused by a huge earthquake under the ocean.
- The earthquake causes a large amount of water to be displaced very quickly causing a series of waves.
- As the waves travel through shallower water near land, they get bigger and bigger. The wave crashes onto the land causing devastation to buildings and sometimes even lives.



### Tornado characteristics

- A tornado is a violent rotating column of air extending from a thunderstorm to the ground.
- The most violent tornadoes are capable of tremendous destruction with wind speeds of up to 300 mph.
- They can destroy large buildings, uproot trees and hurl vehicles hundreds of yards. They can also drive straw into trees.
- Damage paths can be in excess of one mile wide to 50 miles long. In an average year, 1000 tornadoes are reported nationwide.

### Hurricane characteristics

- A hurricane is a huge storm! It can be up to 600 miles across and have strong winds spiralling inward and upward at speeds of 75 to 200 mph. Each hurricane usually lasts for over a week, moving 10-20 miles per hour over the open ocean.
- Hurricanes gather heat and energy through contact with warm ocean waters. Evaporation from the seawater increases their power. Hurricanes rotate in a counter-clockwise direction around an "eye" in the Northern Hemisphere and clockwise direction in the Southern Hemisphere.
- The centre of the storm or "eye" is the calmest part. It has only light winds and fair weather. When they come onto land, the heavy rain, strong winds and large waves can damage buildings, trees and cars.