

### What Is a Thunderstorm?

A normal storm is when there is heavy rain and wind and the weather seems to be aggressive.
What changes a normal storm into a thunderstorm is the presence of lightning and thunder.



Did you know?

Other names for a thunderstorm are: lightning storm, electric storm and thundershower.

## **How Does a Thunderstorm Start?**

Thunderstorms happen when the air in the sky is unstable. This is caused by warm air rising quickly.

The warm air hits the higher, colder air and this causes more turbulence. Rain (or even hail) starts from the moisture in the air.

The rain cools the air and pushes it around, making winds. This swirling around then causes the thunder and lightning. Sometimes the winds can even develop into tornadoes.



# What Makes Lightning?

Lightning is naturally created electricity. It occurs as the aggressive storm moves around tiny pieces of ice inside the clouds.

The tiny bits of ice bash into each other and rub together and, just like when you rub a balloon on your hair, this causes static electricity.

Eventually, the static electricity builds up so much that it has to let out the energy from the bottom of the cloud and this is where we see the bright light that is the lightning.



# Two Types of Lightning



#### **Sheet Lightning**

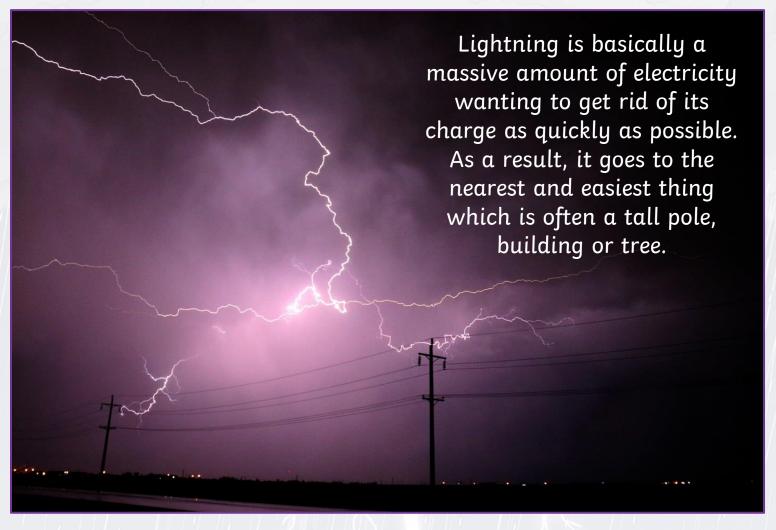
This is also called intra-cloud lightning and happens when the electricity is released within the cloud and stays in the sky.



#### Fork Lightning

This is the zigzag line of lightning that can go from cloud to cloud or from cloud to ground.

# Lightning Strikes



## How Is Thunder Linked to Lightning?

Thunder is the noise that lightning makes as the electricity 'bangs' and escapes.

The reason you don't often hear thunder at the same time as seeing lightning is that light travels faster than sound, so you see the lightning almost straight away and the noise of the thunder can take a little longer to reach your ears.



As the lightning storm travels closer to where you are, the lightning and the sound of thunder get closer together.

# Stay Safe in a Storm



Hard-topped vehicles like cars are also safe as you are protected inside and the tyres touching the road are made of rubber which is a poor conductor of electricity. You're also safe inside an aeroplane as they do get hit by storms up in the clouds.

If you are unlucky enough to be caught outside and not close enough to a safe building, then experts suggest:

- to find the lowest place to be;
- not to stand under a tree, as they are tall and often hit by lightning;
- not to stand in the middle of an open field, as this would make you the tallest thing in the area;
- to stay away from water.

