



Thunder - Where does Thunder come from?

Fact

- Thunder is the sound of air exploding as lightning heats it up. The air rushing out sets up a sound wave of vibrating air.
- A strike of lightning immediately heats up the air to between 15,000 - 60,000 degrees Fahrenheit, hotter than the Sun's surface.
- When the air is heated so quickly it expands violently and then contracts which causes an explosion of air that creates the sound of thunder.
- Lightning and Thunder happen at exactly the same time but because light travels faster than the speed of sound, you always see the lightning first then hear the thunder a few seconds later. The longer the gap between the lightning and thunder the further away the thunderstorm is.

Do you know

- There are over 8 million lightning strikes a day around the world. That means there are 100 lightning strikes per second each day.
- A thundercloud is called a Cumulonimbus cloud.
- In countries like America and Australia they get a lot of 'fork' lightning which looks like a zigzag line of lightning in the sky. In New Zealand we seem to get more 'sheet' lightning which is like a bright flash that lights up the sky.

Experiments you can do

Blow up a balloon or a paper bag and pop it.

What happened? You made thunder!

When you force air into the balloon or bag, the air becomes compressed. When you pop the balloon or bag, the air expands rapidly as it escapes. This creates the sound waves that reach your ears as a popping sound or thunder!

Other Investigations

Next time you see lightning, count the seconds until you hear the thunder. Light travels faster than sound and the sound of thunder takes about three seconds to travel one kilometre. If you count to three just before you hear the thunder, the lightning is about one kilometre away. If the lightning and the thunder happen at the same time then the lightning is very, very close!

Jokes

Why did the lightning show its bottom? It couldn't find its thunderpants.