

Tell me why!

Why do we see lightning before we hear the thunder?

Have you ever watched fireworks? You always see their wonderful colours before you hear their loud sounds. This is because light travels faster than sound. When lightning strikes, the air around it moves very quickly, causing vibrations. These vibrations, or 'sound waves', are then heard as thunder.



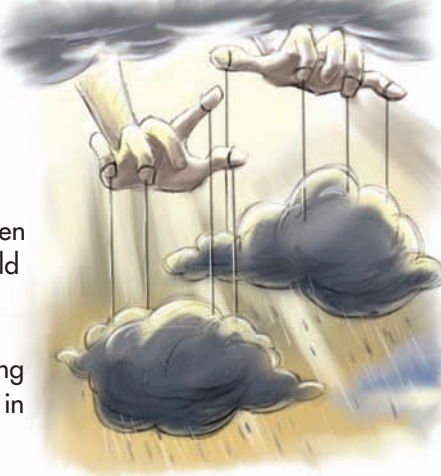
Why does the tide go in and out at the seaside?

The Moon helps to create the tides. The pull of the Moon's gravity on the Earth causes the oceans to be pulled upwards or bulge out from the Earth. As the Earth turns, this movement of water shifts, causing the 'high' and 'low' tides.



Why do clouds float if they have lots of water in them?

Clouds contain tiny water droplets, which are so light they float on the air, just like pieces of dust do in a ray of sunlight. So, even though clouds can hold lots of water, the tiny droplets aren't heavy enough to fall, meaning they hang suspended in the air.



Why don't people fall off the Earth in Australia?

Think about the last time you threw a ball into the air. It fell back down because of gravity. We can't see gravity, but it's a force that pulls everything towards the Earth and stops us from floating off into space. This is why no matter where you are on the planet, you won't fall off!



Why are deserts hot in the day and cold at night?

Deserts are very hot and dry in the day because the sun beats down through the clear skies, making the temperature rise. At night, there are no clouds to stop the heat from the ground escaping, so the desert becomes very cold and sometimes even frosty!



Why do we get rainbows?

Sunlight is made up of rays of light, which are different colours. Normally, we don't see the different colours. However, when it rains, the rays of light pass through the raindrops, which bend and reflect the different colours back to our eyes. A prism can also bend rays of light – try to create a rainbow with a prism in your classroom!

