

A young child with short brown hair, wearing blue pajamas with a pattern of red and yellow spots, is seen from behind, looking out a window. The window shows a dark night sky with heavy rain falling and a bright blue lightning bolt striking down. The scene is illuminated by the blue light of the lightning and the warm glow of city lights visible through the window. The text "Why Is There Thunder When it Rains?" is overlaid on the right side of the image in a white, cursive font with a blue outline.

*Why Is There Thunder  
When it Rains?*

# **Why Is There Thunder When It Rains?**

*Learn about the loud and exciting sound called thunder!*

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## Introduction

Have you ever been outside when it was raining and suddenly heard a loud boom in the sky? That's thunder! It can be very loud and even a little scary. But what causes it? Let's find out why thunder happens when it rains.

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## What Is Thunder?

Thunder is the loud sound you hear after you see lightning. Lightning is a flash of bright light that comes from the clouds, and thunder is the sound that follows. It might seem like thunder happens at the same time as lightning, but it actually comes a little after. That's because light travels faster than sound.

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## What Causes Thunder?

Thunder happens because of the lightning! Here's how:

1. **Lightning Strikes:** When a storm cloud builds up, it can have a lot of electrical energy. This energy causes the air inside the cloud to become very hot, sometimes up to 30,000°C (54,000°F)! This heat causes the air to expand really quickly.
2. **Air Expands Quickly:** When the air heats up so fast, it makes a big shockwave, like a mini explosion. This shockwave creates a sound, and that sound is what we hear as thunder.

3. **The Boom:** The air doesn't just heat up once. It heats up and cools down, causing the air to move quickly back and forth. This makes the sound of thunder that can be heard miles away.
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## Why Does Thunder Sound So Loud?

Thunder can be very loud because the shockwave travels through the air in all directions. The sound can get even louder if the storm is close to you. Sometimes, you might even feel the thunder shake the ground! The closer the lightning strike, the louder the thunder.

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## Fun Facts About Thunder

1. **Thunder and lightning happen at the same time!** The reason you see lightning before you hear thunder is because light travels faster than sound. If you see lightning and count the seconds before you hear thunder, each second means the lightning is one mile away.
2. **Thunder can sound different.** Depending on how far away the lightning is, thunder can sound like a crack, a boom, or even a rumble that seems to go on for a long time!
3. **Thunderstorms can be dangerous.** Sometimes, thunderstorms can bring strong winds, heavy rain, and even tornadoes. It's always best to stay inside during a thunderstorm to stay safe!

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## **Conclusion**

Thunder happens because of the lightning in a storm. When lightning strikes, it heats up the air very quickly, making it expand and create a loud sound. The next time you hear thunder, you'll know it's the sound of the air reacting to a flash of lightning up in the sky!

**The End**