Why is the Sky Blue?

The sky looks blue because of a process called **scattering**. Let’s break it down step by step:

Step 1: The Sun's Light

The sun sends out light that looks white to us. But this light is actually made up of many colors, like in a rainbow: red, orange, yellow, green, blue, indigo, and violet!

Step 2: The Earth's Atmosphere

When sunlight travels to the Earth, it passes through **air** in our atmosphere. The air contains tiny particles and molecules.

Step 3: Scattering of Light

As the sunlight hits these tiny particles, it gets scattered in all directions. But not all colors scatter the same way. **Blue light** is scattered more than the other colors because it travels in shorter, smaller waves. That’s why, when we look up, we see a blue sky!

Step 4: What Happens at Sunset?

During sunrise or sunset, the sun is lower in the sky. The light has to travel through more air, scattering more blue and green light away. Since the red and orange colors have longer waves, we can see more of them, making the sky look beautiful and colorful!

So, the next time you look up and see a blue sky, remember that it's the **scattering** of the sunlight in the atmosphere that makes it happen!