

Objective

By the end of this lesson, the student will understand why the sky appears blue during the day and be able to explain the concept of light scattering in simple terms.

Materials and Prep

- None required for this lesson.

Make sure to choose a clear day for any outdoor activities. It might be helpful to have a sunny spot to observe the sky.

Activities

- **Sky Observation:** Step outside on a clear day and look up at the sky. Ask the student to describe what they see. Is it blue? Are there clouds? Discuss the colors they observe.
- **Light Experiment:** Use a flashlight (if available) and a glass of water. Shine the flashlight through the water and observe how the light changes. This can help illustrate how light behaves in the atmosphere.
- **Color Mixing:** If you have colored markers or crayons, have the student mix blue with other colors. Discuss how mixing colors can create different shades and relate this to how light can change based on what it's passing through.

Talking Points

- "Have you ever wondered why the sky is blue? It's all about light!"
- "The sunlight looks white, but it's actually made up of many colors, like a rainbow!"
- "When sunlight hits the atmosphere, it gets scattered. Blue light gets scattered more than other colors!"
- "That's why we see a blue sky most of the time!"
- "On cloudy days, the clouds block some of the light, which is why the sky looks gray."
- "At sunrise and sunset, the sunlight has to travel through more air, which scatters the blue light and lets the reds and oranges shine through!"
- "So, the next time you look up at the sky, remember it's all about how light travels!"
- "Isn't it cool how something as simple as light can change the way we see the world?"