

Student Name: _____

Class: _____

Due Date: _____

Introduction and Objective

Rainbows are beautiful natural wonders that appear in the sky after a rain shower. But have you ever wondered how they are formed? In this worksheet, we will explore the science behind rainbows and learn about the conditions necessary for their formation.

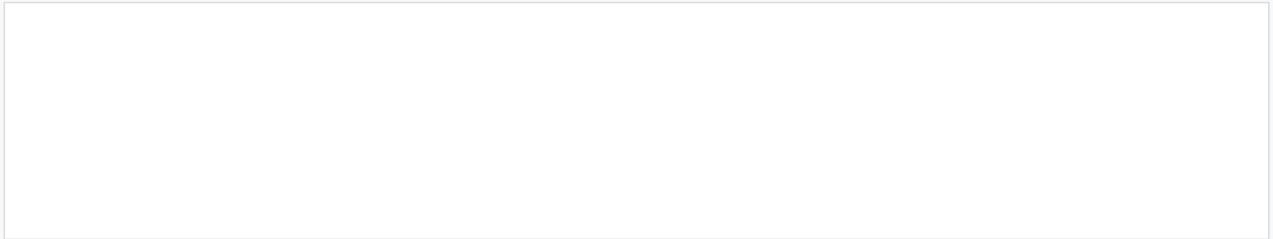
Objective: To understand the science behind rainbows and their formation.

What is a Rainbow?

A rainbow is a beautiful natural phenomenon that occurs when sunlight passes through water droplets in the air.

Diagram: A simple diagram showing the formation of a rainbow

Question: What is the name of the phenomenon that occurs when sunlight passes through water droplets in the air?

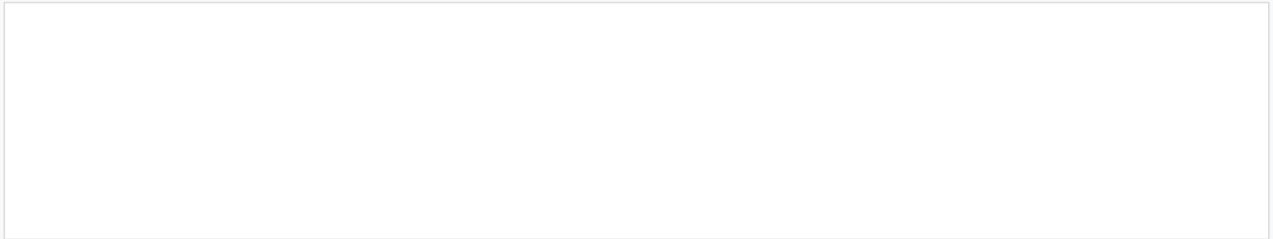


Conditions for Rainbow Formation

There are three conditions necessary for a rainbow to appear: sunlight, water droplets, and the correct angle of the observer.

Diagram: A diagram showing the position of the sun, water droplets, and the observer

Question: What are the three conditions necessary for a rainbow to appear?

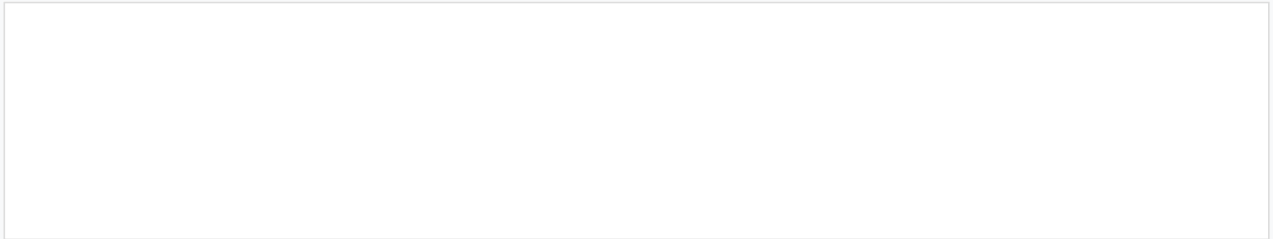


Refraction and Dispersion

Refraction is the bending of light as it passes from one medium to another. Dispersion is the spreading of light into its color components.

Diagram: A diagram showing the refraction and dispersion of light

Question: What happens to light when it passes through a water droplet?



Colors of the Rainbow

The colors of the rainbow, in order, are: Red, Orange, Yellow, Green, Blue, Indigo, Violet.

Diagram: A diagram showing the colors of the rainbow

Question: What are the colors of the rainbow, in order?



Fun Facts about Rainbows

Rainbows can occur at night, rainbows can be seen in the mist of a waterfall, and more.

Question: What is a fun fact about rainbows that you learned today?

Create a Rainbow

Create a rainbow using a prism or a glass of water and sunlight.

Instructions: Shine a flashlight through a glass of water onto a white surface. What do you see?

Question: What happens when you shine a flashlight through a glass of water?

Rainbow Observation

Observe a rainbow and record its colors and shape.

Instructions: Draw a picture of a rainbow you have seen. Label its colors and shape.

Question: What did you observe about the rainbow you drew?



Rainbow Mythology

A brief story about the mythology of rainbows.

Question: What is a mythological story about rainbows that you have heard?

Conclusion and Reflection

Rainbows are beautiful natural wonders that occur when sunlight passes through water droplets in the air.

Reflection: What did you learn about rainbows today? What was your favorite part of the lesson?

Question: What would you like to learn more about rainbows in the future?