

Chasing Light: A Scientific Adventure

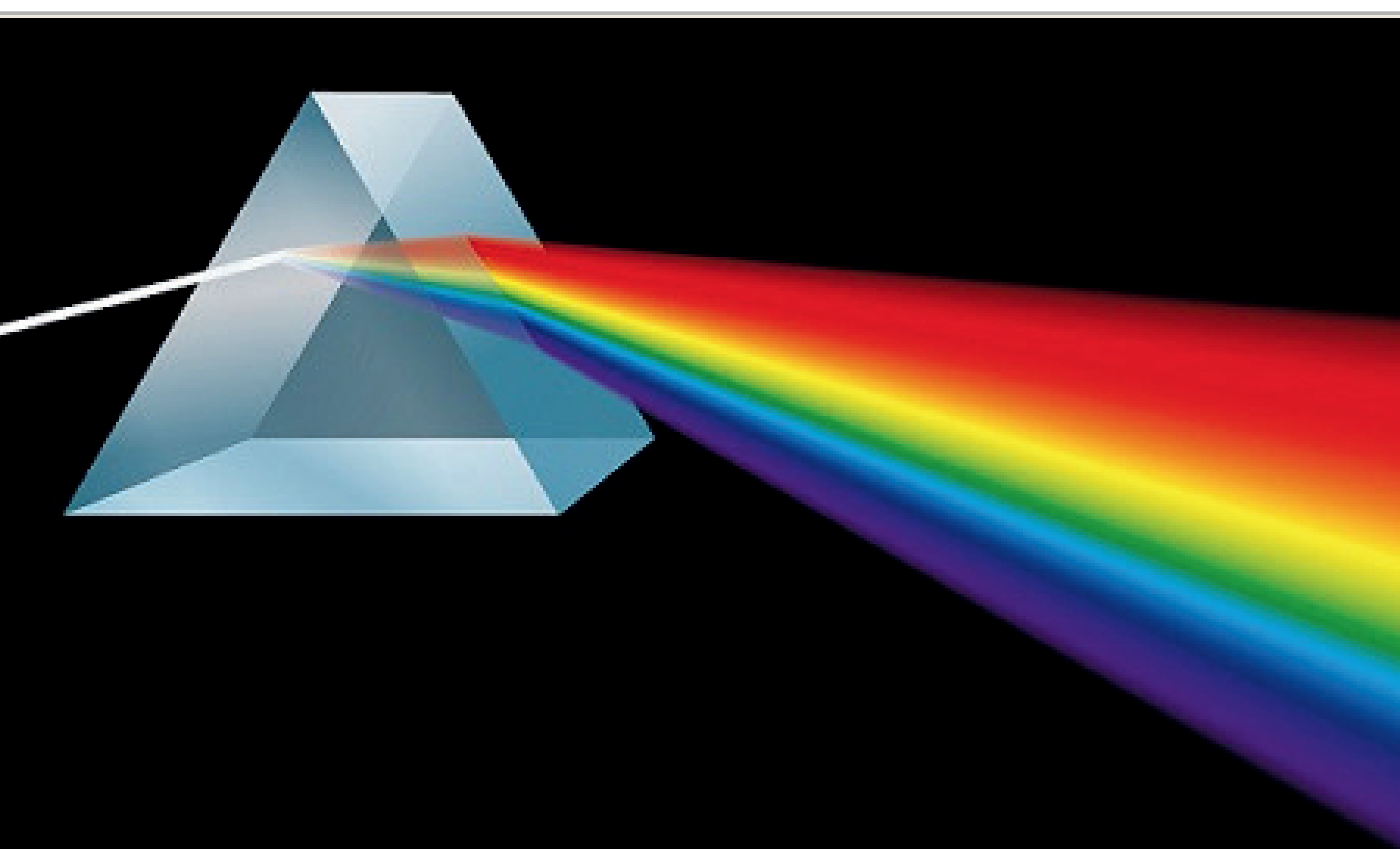
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Scientists in Schools recognizes the need for interactive workshops that spark curiosity and provide a solid foundation in scientific principles. The challenge is creating hands-on experiences that introduce key concepts through engaging demonstrations aligned with educational standards.



01. Introduction

We propose a workshop titled “Chasing Light: A Scientific Adventure,” designed to fulfill the educational goals set forth by Scientists in Schools. This workshop incorporates a series of interactive activities, which align with chemistry content to enhance student learning in a fun and engaging way

02. Diffraction in Action

Students learn that white light consists of all the colours of the rainbow. We demonstrate diffraction by using a prism and flashlight to separate white light into its colours (ROY G BIV).

Activity: Students observe how the prism creates a spectrum, then experiment with coloured plastic sheets to see how this affects the projected light.

Questions: What colours do you see? Why are some colours brighter? What happens when we add coloured plastic?

03. Magnification and Lenses

Let's explore how magnifying glasses make things look bigger! We use magnifying glasses to look closely at different things from different distances. Notice how the size and clarity of the image change as you move the magnifying glass.

Activity: Students use magnifying glasses to observe objects at different distances, noting changes in the image size and clarity. Discuss how lenses work to bend light and magnify images.

Questions: What happens to the object as you move the magnifying glass closer or farther away? Why does that happen? How do you think a magnifying glass makes things look bigger?

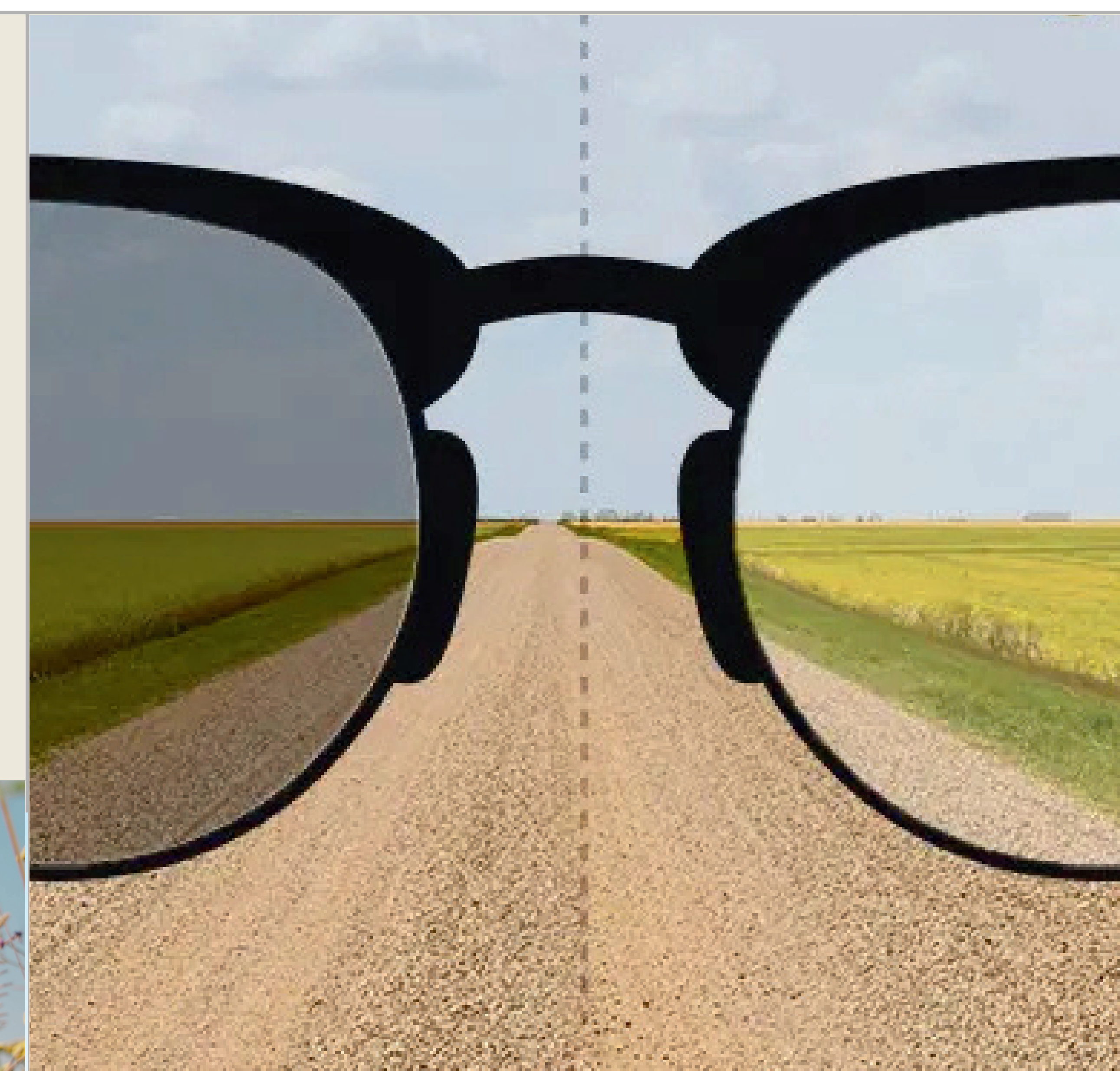


04. Angling and Polarizing Light

Light moves in waves, and those waves can hit our eyes at different angles. When individuals put on polarized sunglasses, they only let light from a specific angle pass through—often just the vertical light.

Activity: Students don a pair of polarized sunglasses and explore their surroundings. They tilt their heads to observe how the light changes. Next, they layer two pairs of sunglasses at different angles and investigate how the overlapping lenses affect their view of the light.

Questions: What do you notice when the sunglasses overlap at various angles? How do the sunglasses alter the way light appears?



polarised

non-polarised

05. Conclusion

Students review light's properties and real-world applications. Reflect on favorite parts and clarify questions.

