

Unit 8 - Blinded By the Light - Lights and Optics

Content Area: **Science**
Course(s): **Physics Honors, Horticulture 1**
Time Period: **April**
Length: **6 weeks**
Status: **Published**

Enduring Understandings

When energy and information are transferred without the transfer of matter, the phenomenon is referred to as wave motion.

When energy transfer strikes a boundary between two different media, different behaviors may be seen.

Light is a small number of wavelengths that exhibit wave-energy transfers.

Wave behaviors such as reflection and refraction are responsible for the functioning of many optical devices

Essential Questions

How does energy travel as a wave?

How do waves behave?

How is light described in terms of wave-energy transfer?

Content

Vocabulary:
Reflection
Refraction
Diffraction
Transmission
Concave
Convex
Real image
Virtual image
Converging
Diverging

Skills

Identify, sketch, and label waveforms.

Calculate wave characteristics given various conditions.

Sketch results of waves changing mediums (frequency, wavelength, inversion, amplitude, velocity).

Calculate angles of reflection.

Apply Snell's Law to refraction scenarios.

Determine the differences between real and virtual images using optical devices such as mirrors and lenses.

Resources

Standards
