



Lasers 7-9 Syllabus

Course Goals

1 Introduction to Lasers

Students understand what lasers are, the ways they are constructed, and their uses of color.

2 Wavelengths

Students learn various properties of light and its nature with an emphasis on measuring wavelengths.

3 Reflection and Refraction

Students learn how light can be reflected and refracted and use lasers to experiment with these concepts.

4 Applications

Students discover a variety of contemporary uses for lasers.

Course Topics

1 Overview of Lasers

Students learn about theories regarding lasers, the ways they are constructed, and the information gained from their color.

2 Properties of Light and Lasers

Students discover how to use lasers in experiments to discover the wave properties of light along with other characteristics.

3 Reflection

Students use laser viewing tanks to verify the law of reflection and differentiate different types of reflection.

4 Refraction

Students participate in experiments to understand indices of refraction and determine the speed of light.

5 Applications

Students learn the various applications of lasers in modern society such as in bar code scanners and alignment tools.

6 Holography

Students learn how to create their own holograms.

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