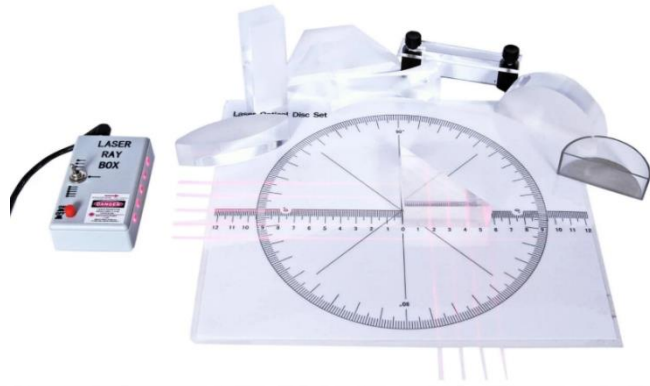


INSTRUCTIONAL GUIDE

Contents

- Laser Ray Box
- Laminated compass mat
- Magnetic compass mat
- AC Adapter
- 8 Optical components
- Foam-lined Case



Introduction

Students will explore refraction and reflection to understand how light is commonly used in daily life. The Laser Ray Box emits 1, 3, or 5 parallel beams, and the 8 optical components are:

- Concave lens
- Convex lens
- Rectangular prism
- Trapezoid prism
- Mirror
- 45-45-90 Right-angle prism
- Semi-circular prism
- Hollow semi-circular prism

Activity

1. Let the students familiarize themselves with the shapes by naming the different lenses and prisms and measuring any relevant angles.
2. Review terms like ray, convex, concave, diverge, converge, focal length, focal point, etc.
3. Introduce the capabilities of the Laser Ray Box by switching between 1, 3, and 5 rays, and demonstrating some of the optical elements.
4. Allow the students to explore the effects of the optical elements using the student handout.

Related Products

Introductory Optical System (92-7700) This simple but elegant Optical System is designed for basic optics experiments, and a great alternative to the traditional mounted optical benches.

Light Box & Optical Set 2.0 (P2-9580) This affordable Light Box and Optical Set makes it easy to perform experiments involving the optics of lenses, mirrors, and prisms, as well as providing a versatile way to display primary and secondary colors; and both additive and subtractive color mixing.