

---

## Classroom Activities

This material has been developed to provide a guide to hands-on experiences in science and mathematics. The activity plans are written to be used by the students in groups of two to four people in a lab-type setting.

Each lab session should begin with a brief discussion of the theory section of each lesson plan. The teacher should feel free to adjust the information and activities to meet the needs of the students. For the very young student, the teacher may want to lead the experience activity and adapt the questions.

Pat Armstrong

### Activities for Grades K–4

- Activity 1: Reflection of Light With a Plane (Flat) Mirror
- Activity 2: Reflection of Light With Two Plane Mirrors
- Activity 7: Exploring Diffraction With a Spectroscope
- Activity 10: Light and Color-Color Spinners
- Activity 11: Light and Color-Filters
- Activity 12: Light and Color-Hidden Messages
- Activity 13: Simple Magnifiers

### Activities for Grades 5–8

- Activity 1: Reflection of Light With a Plane (Flat) Mirror
- Activity 2: Reflection of Light With Two Plane Mirrors
- Activity 3: Reflection of Light With Two Plane Mirrors-Double Sided
- Activity 5: Making a Periscope
- Activity 6: Constructing a Spectroscope
- Activity 7: Exploring Diffraction with a Spectroscope
- Activity 10: Light and Color-Color Spinners
- Activity 12: Light and Color-Hidden Messages
- Activity 13: Simple Magnifiers

### Activities for Grades 9–12

- Activity 4: Making a Kaleidoscope
- Activity 5: Making a Periscope
- Activity 8: Diffraction of Light by Very Small Apertures
- Activity 9: Discovering Color With a Prism
- Activity 14: Focusing Light With a Lens
- Activity 15: Building a Telescope
- Activity 16: Building a Microscope
- Activity 17: Interference Fringes
- Activity 18: Polarization of Light

