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