



ENERGY QUEST: LIGHT

4th Grade

DESCRIPTION

Enhance your fourth graders' understanding of the nature of light with this "enlightening" program, which introduces light as a form of energy. Students will conduct hands-on experiments into the properties of light, how it is affected by lenses, mirrors, and prisms, and explore concepts such as refraction, reflection, absorption, opaque, translucent and transparent. Students will also get a firsthand opportunity to experience light exhibits in the Collins Family My Big Backyard gallery. Program will run for two hours.

30 MINUTES – INTRO IN THEATER - ALL STUDENTS

- Introduce characteristics of light
- Demonstration of properties of light using a laser

30 MINUTES - LAB

- Students will explore the properties of both colored and white light, and how reflections change using various types of mirrors (concave, convex and plane)
- Students will investigate the creation of white light using colored light, as well as using various lens shapes to determine their appropriate use
- Students will also test the effects everyday objects have on light

30 MINUTES - GALLERY TIME

- The Collins Family My Big Backyard will be introduced with focus on the greenhouse and light activities
- Students compare the changes in their image in various mirrors
- Review reflection, refraction, absorption, transparent, translucent and opaque concepts
- Free time in the gallery

30 MINUTES - STORE AND TREE ACTIVITY

- Discuss light travelling through colored filters

TAKE HOME ITEMS

- Blue filter glasses