

LIGHT ENERGY

GEORGIA STANDARDS OF EXCELLENCE:
S4P1a-c

TENNESSEE ACADEMIC STANDARDS:
4.PS2:2,3

4th Grade



DESCRIPTION

Enhance your students' 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.

30 MINUTES - INTRODUCTION IN THEATER

- Introduce characteristics of light
- Demonstrate the properties of light using a laser

30 MINUTES - LAB

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

30 MINUTES - STORE AND TREE ACTIVITY

- Demonstrate light travelling through colored filters
- Review reflection, refraction, absorption, transparent, translucent and opaque concepts

30 MINUTES - GALLERY TIME

- Visit and explore Collins Family My Big Backyard focusing on the greenhouse and light activities

TAKE HOME ITEMS

- Blue filter decoders with “secret” riddle card