



ENERGY CAUSES CHANGE

Grade 3 | 60 Minutes

Program Overview

Description

Use investigation stations to explore thermal, electrical, and magnetic energy. Discover how different types of energy create changes in matter. Experiment with sound, magnets, motion and more.

Adult chaperones recommended: 6

Content Standards

Subject	Gr	Ohio Department of Education Standards
Physical Science	3	<ul style="list-style-type: none">• All objects and substances in the natural world are composed of matter.• Matter exists in different states, each of which has different properties.• Heat, electrical energy, light, sound and magnetic energy are forms of energy.

Vocabulary

energy
electrical energy
matter
sound energy
magnetic energy
properties
thermal energy

Book we recommend

Energy Makes Things Happen by Kimberly Brubaker Bradley. Harper Collins, 2003.

Post-Trip Activities

Identify objects with energy in the environment (e.g., moving water, windmill, water wheel, sunlight) and determine what types of energy they have.

Design, construct and test a small boat or aircraft that can move in different directions (or against the flow of air/water) in nature. Document the forms of energy and resulting motion as the boat or aircraft is being demonstrated to an authentic audience.

Other Resources

National Geographic article: <https://education.nationalgeographic.org/resource/energy-transfers-and-transformations>

Solid, liquid, gas simulator: <https://www.knowatom.com/interactive-simulations/states-of-matter-basics>