

# Energy

Content Area: **Science**  
Course(s): **Science 4**  
Time Period: **Undefined**  
Length: **Undefined**  
Status: **Published**

## Unit Overview

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### Essential Questions

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How does energy cause change?

What are forms of energy?

What is sound energy?

What is light energy?

What is heat?

### Content

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Some forms of energy are: electrical energy, sound energy, kinetic energy, potential energy, thermal energy and light energy.

Sound is energy in the form of vibrations passing through matter.

Light is visible energy that travels in waves with wavelengths and frequencies.

Heat is thermal energy that flows from something warm to something cool.

### Skills

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Define energy, know what forms it can take, and understand what it can do.

Describe sound energy and explain how it is produced.

Describe how light bends when it passes through different materials.

Recognize that heat flows from hot objects to cold ones and give examples of good and bad conductors of heat.

## Assessments

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Apply understanding of the different forms of energy to understand how energy can cause motion.

Study Guide

Chapter Review

Chapter Test

Benchmark Practice

Performance-Based Assessment, Program Guide pg 70: Height and Potential Energy, Cooking up Science and/or Write a Poem

STEM Activity Book

## Lessons/Learning Scenarios

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Chapter 8: Lesson 1, Lesson 2, Lesson 3, Lesson 4

Inquiry, pg 350-351: What are some forms of energy?

Vocabulary

Study Guide

Chapter Review

## Standards

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SCI.3-4.5.1.4.B.3	Formulate explanations from evidence.
SCI.3-4.5.1.4.C.1	Monitor and reflect on one's own knowledge regarding how ideas change over time.
SCI.3-4.5.1.4.C.3	Present evidence to interpret and/or predict cause-and-effect outcomes of investigations.
SCI.3-4.5.2.4	All students will understand that physical science principles, including fundamental ideas about matter, energy, and motion, are powerful conceptual tools for making sense of phenomena in physical, living, and Earth systems science.
SCI.3-4.5.2.4.B	Substances can undergo physical or chemical changes to form new substances. Each change involves energy.
SCI.3-4.5.2.4.C	Knowing the characteristics of familiar forms of energy, including potential and kinetic energy, is useful in coming to the understanding that, for the most part, the natural world can be explained and is predictable.

## Resources

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