

UNIT | Weather *(5.5 weeks)*

- 1.1 | Air *(3 days)*
- 1.2 | What is Weather? *(3 days)*
- 1.3 | Weather Changes *(5 days)*
- 1.4 | What Is Severe Weather? *(4 days)*
- 1.5 | The Four Seasons *(5 days)*

UNIT | Earth Materials *(3.5 weeks)*

- 2.1 | Soil *(4 days)*
- 2.2 | Rocks and Minerals *(3 days)*
- 2.3 | Investigating Rocks *(4 days)*

UNIT | Ecosystems and Environment *(6 weeks)*

- 3.1 | Plant Life Cycles *(4 days)*
- 3.2 | Animal Life Cycles *(4 days)*
- 3.3 | Adaptations *(5 days)*
- 3.4 | Habitats *(5 days)*

UNIT | Nutrition and Health *(3 weeks)*

- 4.1 | Body Features *(4 days)*
- 4.2 | Nutrition *(5 days)*

UNIT | Matter and Energy *(11 weeks)*

- 5.1 | Volume *(3 days)*
- 5.2 | Weight *(4 days)*
- 5.3 | Magnetism *(4 days)*
- 5.4 | Temperature *(3 days)*
- 5.5 | Sinking and Floating *(4 days)*
- 5.6 | Dissolving and Evaporating *(4 days)*
- 5.7 | Changes in Matter *(6 days)*
- 5.8 | States of Matter *(5 days)*

UNIT | Energy and Motion *(6 weeks)*

- 6.1 | Force and Motion *(5 days)*
- 6.2 | Gravity *(4 days)*
- 6.3 | Energy Sources *(5 days)*
- 6.4 | Magnets and Magnetism *(6 days)*

UNIT: Weather

1.1 Air

Recommended Timeframe: (3 Days)

Benchmarks:

SC.2.E.7.4 - Investigate that air is all around us and that moving air is wind. (Cognitive Complexity/Depth of Knowledge Rating: High)

Key Resources:

Engage: [The Air Around Us](#) (Video)

(SC.2.E.7.4)

Explore: [Where is Air? What Happens When Air Moves?](#) (CIT & TEI)

(SC.2.E.7.4)

Explore: [Air Is Everywhere](#) (Reading Passage)

(SC. 2.E.7.4)

Explain: [Explaining Air](#) (CIT & TEI)

(SC. 2.E.7.4)

Hands-On Activities &
Hands-On Labs:

[Where the Wind Blows](#)
[Pinwheels in the Wind](#)

[Air Assessment](#)

Key Vocabulary:

[air](#), [atmosphere](#), [wind](#), [water](#)
[vapor](#), [weather](#), [gas](#),
[temperature \(weather\)](#)

UNIT: Weather

1.2 What is Weather?

Recommended Timeframe: (3Days)

Benchmarks:

SC.2.E.7.1 - Compare and describe changing patterns in nature that repeat themselves, such as weather conditions including temperature and precipitation, day to day and season to season. (Cognitive Complexity/Depth of Knowledge Rating: Moderate)

SC.2.E.7.2 - Investigate by observing and measuring, that the Sun's energy directly and indirectly warms the water, land, and air. (Cognitive Complexity/Depth of Knowledge Rating: High)

Key Resources:

Engage: [Discovery Science Alliance: Weather](#) (Video)

(SC.2.E.7.1)

Explore: [What Is Weather?](#) (CIT) [What is Weather?](#) (Video)

(SC.2.E.7.1)

Explore: [Is the Sun Involved in Weather? How Does the Sun Affect the Weather?](#) (CIT)

(SC.2.E.7.2)

Explore: [Wind](#) (Video)

(SC.2.E.7.2)

Explain: [How are weather and sunshine related?](#)

(SC.2.E.7.1, SC.2.E.7.2)

Hands-On Activities &
Hands-On Labs:

[The Sun's Energy on Earth](#)

[What is Weather?
Assessment](#)

Key Vocabulary:

[season](#), [air](#), [energy](#), [measure](#),
[thermometer](#),
[\(weather\)](#), [weather](#), [analyze](#),
[heat](#), [water cycle](#),
[temperature](#)
[\(weather\)](#), [cloud](#), [precipitation](#),
[water](#)

UNIT: Weather

1.3 Weather Changes

Recommended Timeframe: (5 Days)

Benchmarks:

SC.2.E.7.1 - Compare and describe changing patterns in nature that repeat themselves, such as weather conditions including temperature and precipitation, day to day and season to season. (Cognitive Complexity/Depth of Knowledge Rating: Moderate)

SC.2.P.8.5 - Measure and compare temperatures taken every day at the same time. (Cognitive Complexity/Depth of Knowledge Rating: Moderate)

Key Resources:

Engage: [What's the Weather Like Today?](#) (Reading Passage)
(SC.2.E.7.1, SC.2.P.8.5)

Explore: [How Does the Weather Change over the Course of One Day?](#)
(SC.2.E.7.1)

Explore: [How Do People Forecast the Weather? How Can We Gather and Record Weather Information?](#)
(CIT & [Video](#))
(SC.2.E.7.1)

Explain: [Weather Changes](#)
(SC.2.E.7.1)

Hands-On Activities & Hands-On Labs

[Weather Graph](#)

[Weather Changes Assessment](#)

Key Vocabulary:

[season](#), [tornado](#),
[condense](#), [wind](#),
[thermometer](#)
[\(weather\)](#), [hurricane](#), [water cycle](#), [predict](#), [satellite](#), [measure](#),
[thunderstorm](#), [cloud](#), [precipitation](#), [climate](#), [observe](#),
[variation](#), [water vapor](#), [rain](#),
[meteorology](#), [analyze](#),
[lightning](#), [forecast](#),
[temperature \(weather\)](#), [snow storm](#), [air](#), [barometric pressure](#), [data](#)

UNIT: Weather

1.4 What Is Severe Weather?

Recommended Timeframe: (4 Days)

Benchmarks:

SC.2.E.7.1 - Compare and describe changing patterns in nature that repeat themselves, such as weather conditions including temperature and precipitation, day to day and season to season. (Cognitive Complexity/Depth of Knowledge Rating: Moderate)

SC.2.E.7.5 - State the importance of preparing for severe weather, lightning, and other weather related events. (Cognitive Complexity/Depth of Knowledge Rating: Low)

Key Resources:

Elaborate: [STEM Project Starter: Looking for Weather Patterns](#) (CIT & TEI)

(SC.3.E.7.1)

Explore: [What Are Different Kinds of Severe Weather?](#) (CIT & TEI)

(SC.3.E.7.5)

Explore: [Severe Weather](#) (Reading Passage)

(SC.3.E.7.5)

Explore: [What Are the Dangers of Severe Weather?](#) (CIT)

(SC.3.E.7.5)

Explore: [Creating Emergency Kits](#) (Video)

(SC.3.E.7.5)

Explore: [What Would You Pack?](#) (TEI)

(SC.2.E.7.5)

Explain: [What Is Severe Weather?](#)

(SC.2.E.7.5)

Hands-On Activities & Hands-On Labs

[Safety Zones](#)

[What Is Severe Weather? Assessment](#)

Key Vocabulary:

[thunder](#), [tornado](#), [flood](#),
[weather](#), [hurricane](#), [lightning](#),
[thunderstorm](#), [precipitation](#)

UNIT: Weather

1.5 The Four Seasons

Recommended Timeframe: (5 Days)

Benchmarks:

SC.2.E.7.1 - Compare and describe changing patterns in nature that repeat themselves, such as weather conditions including temperature and precipitation, day to day and season to season. (Cognitive Complexity/Depth of Knowledge Rating: Moderate)

SC.2.E.7.2 - Investigate by observing and measuring, that the Sun's energy directly and indirectly warms the water, land, and air. (Cognitive Complexity/Depth of Knowledge Rating: High)

Key Resources:

Engage: [Start Each Day with a Song: Four Seasons](#) (song)

(SC.2.E.7.1)

Explore: [How Are the Seasons Different?](#) (CIT)

(SC.2.E.7.1)

Explore: [Orbit and Axis](#) (Video)

(SC.2.E.7.2)

Explore: [Seasons](#) (Video)

(SC.2.E.7.2)

Explore: [The Seasons](#) (Exploration)

(SC.2.E.7.2)

Explore: [Which Season Is It?](#) (TEI)

(SC.2.E.7.2)

Explore: [Teacher Note: Literacy](#) (Activity)

(SC.2.E.7.2)

Hands-On Activities &
Hands-On Labs:

[Temperature Patterns](#)
[Seasons Art Gallery and Tour](#)

[The Four Seasons Assessment](#)

Key Vocabulary:

[season](#), [migration](#), [rotate](#),
[weather](#), [thunderstorm](#), [cycle](#),
[temperature](#)
[\(weather\)](#), [hibernate](#),
[precipitation](#)

UNIT: Earth Materials

2.1 Soil

Recommended Timeframe: (4 Days)

Benchmarks:

SC.2.E.6.2 - Describe how small pieces of rock and dead plant and animal parts can be the basis of soil and explain the process by which soil is formed. (Cognitive Complexity/Depth of Knowledge Rating: High)

SC.2.E.6.3 - Classify soil types based on color, texture (size of particles), the ability to retain water, and the ability to support the growth of plants. (Cognitive Complexity/Depth of Knowledge Rating: High)

Key Resources:

Engage: [Experiencing Soil](#) (CIT & TEIs)

(SC.2.E.6.2)

Explore: [How Does Soil Form?](#) (CIT)

(SC.2.E.6.2)

Explore: [What Is Soil?](#) (Video)

(SC.2.E.6.2)

Explore: [Are There Different Types of Soil? How Can Soil Be Classified?](#) (CIT & TEI)

(SC.2.E.6.3)

Explore: [Soil Types and Properties](#) (Video)

(SC.2.E.6.3)

Explore: [How Can Soil Be Described?](#) (CIT)

(SC.2.E.6.3)

Explain: [Explaining Soil](#)

(SC.2.E.6.2, SC.2.E.6.3)

Hands-On Activities & Hands-On Labs:

[Making Soil](#)

[Soil Assessment](#)

Key Vocabulary:

[soil](#), [rock](#)

[layer](#), [animal](#), [humus](#), [mineral](#), [surface](#), [Earth](#), [classify](#), [growth](#), [boulder](#), [color](#), [plant](#), [organism](#), [characteristic](#), [water](#)

UNIT: Earth Materials

2.2 Rocks and Minerals

Recommended Timeframe: (3 Days)

Benchmarks:

SC.2.E.6.1 - Recognize that Earth is made up of rocks. Rocks come in many sizes and shapes. (Cognitive Complexity/Depth of Knowledge Rating: Moderate)

SC.2.P.8.1 - Observe and measure objects in terms of their properties, including size, shape, color, temperature, weight, texture, sinking or floating in water, and attraction and repulsion of magnets. (Cognitive Complexity/Depth of Knowledge Rating: Low)

Key Resources:

Engage: [Where Do You See Rocks and Minerals?](#) (CIT)

(SC.2.E.6.1)

Explore: [What Are Rocks? What Are Minerals?](#) (CIT)

(SC.2.E.6.1)

Explore: [Identifying Minerals](#) (Video)

(SC.2.P.8.1)

Explore: [Rocks and Minerals](#) (TEI)

(SC.2.E.6.1, SC.2.P.8.1)

Hands-On Activities &
Hands-On Labs:

[Rock On](#)

[Rocks and Minerals Assessment](#)

Key Vocabulary:

[rock layer](#), [granite](#),
[geology](#), [crystal](#), [mineral](#), [rock cycle](#),
[erosion](#), [soil](#), [color](#), [luster](#),
[crust](#)

UNIT: Earth Materials

2.3 Investigating Rocks

Recommended Timeframe: (4 Days)

Benchmarks:

SC.2.E.6.1 - Recognize that Earth is made up of rocks. Rocks come in many sizes and shapes. (Cognitive Complexity/Depth of Knowledge Rating: Moderate)

SC.2.P.8.1 - Observe and measure objects in terms of their properties, including size, shape, color, temperature, weight, texture, sinking or floating in water, and attraction and repulsion of magnets. (Cognitive Complexity/Depth of Knowledge Rating: Low)

Key Resources:

Explore: [Why are All Rocks Different? How Are Rocks Different from and Similar to Each Other?](#) (CIT)

(SC.2.E.6.1)

Explore: [Observing Rocks](#) (Reading Passage)

(SC.2.E.6.1, SC.2.P.8.1)

Explain: [Investigating Rocks](#)

(SC.2.E.6.1, SC.2.P.8.1)

Hands-On Activities &

Hands-On Labs:

[Rock Sizes](#)

[Investigating Rocks Assessment](#)

Key Vocabulary:

[lava](#), [pressure](#), [property](#), [soil](#),
[environment](#), [color](#), [geology](#),
[crystal](#), [fossil](#), [mineral](#), [classify](#),
[natural](#), [boulder](#), [color](#), [luster](#)

UNIT: Ecosystems and Environment

3.1 Plant Life Cycles

Recommended Timeframe: (4 Days)

Benchmarks:

SC.2.L.16.1 - Observe and describe major stages in the life cycles of plants and animals, including beans and butterflies. (Cognitive Complexity/Depth of Knowledge Rating: Moderate)

Key Resources:

Engage: [What is a Life Cycle?](#) (Video)

(SC.2.L.16.1)

Explore: [What Are the Stages of a Plant's Life?](#) (CIT & TEI)

(SC.2.L.16.1)

Explore: [Life Cycle of Flowering Plants](#) (Video)

(SC.2.L.16.1)

Elaborate: [STEM Project Starter: Sprouting Seeds](#)

(SC.2.L.16.1)

Hands-On Activities &
Hands-On Labs:

[Plant Life Cycles Assessment](#)

Key Vocabulary:

[seedling](#), [germination](#), [fern](#),
[root](#), [moss](#), [life cycle](#),
[cone](#), [inherit](#), [fruit](#), [seed](#),
[sprout](#), [plant](#), [flowering](#)
[plant](#), [conifer](#), [organism](#)

UNIT: Ecosystems and Environment

3.2 Animal Life Cycles

Recommended Timeframe: (4 Days)

Benchmarks:

SC.2.L.16.1 - Observe and describe major stages in the life cycles of plants and animals, including beans and butterflies. (Cognitive Complexity/Depth of Knowledge Rating: Moderate)

Key Resources:

- Explore: [Do We Change When We Grow?](#) (CIT)
(SC.2.L.16.1)
- Explore: [Life Cycles of Mammals](#) (Video)
(SC.2.L.16.1)
- Explore: [How Are the Life Cycles of Various Animals Similar and Different?](#) (CIT)
(SC.2.L.16.1)
- Explore: [Animal Life Cycle: Butterflies](#) (Video)
(SC.2.L.16.1)
- Explain: [Explaining Animal Life Cycles](#)
(SC.2.L.16.1)

Hands-On Activities &
Hands-On Labs:

[Butterfly Pasta Life Cycle](#)

[Animal Life Cycles Assessment](#)

Key Vocabulary:

[inherit](#), [organism](#), [offspring](#), [characteristic](#), [life cycle](#)

UNIT: Ecosystems and Environment

3.3 Adaptations

Recommended Timeframe: (5 Days)

Benchmarks:

SC.2.L.17.1 - Compare and contrast the basic needs that all living things, including humans, have for survival. (Cognitive Complexity/Depth of Knowledge Rating: Moderate)

SC.2.L.17.2 - Recognize and explain that living things are found all over Earth, but each is only able to live in habitats that meet its basic needs. (Cognitive Complexity/Depth of Knowledge Rating: Moderate)

Key Resources:

Engage: [What Are Adaptations?](#) (CIT & [Video](#))

(SC.2.L.17.2)

Explore: [What Do Living Things Need?](#) (CIT)

(SC.2.L.17.1)

Explore: [Needs of Living Things](#) (Exploration)

(SC.2.L.17.1)

Explore: [Why Do Plants and Animals Live In Certain Habitats?](#) (CIT)

(SC.2.L.17.2)

Explore: [What Are Adaptations and How Do They Help Living Things?](#) (CIT)

(SC.2.L.17.1)

Explore: [What Are Adaptations?](#) (Video)

(SC.2.L.17.2)

Explore: [Why Do Different Living Things Have Different Adaptations?](#) (CIT)

(SC.2.L.17.2)

Explain: [Explaining Adaptations](#)

(SC.2.L.17.2)

Hands-On Activities & Hands-On Labs:

[Make a Terrarium](#)

[Adaptations Assessment](#)

Key Vocabulary:

[season](#), [animal](#), [desert](#), [survive](#), [habitat](#), [grassland](#), [fish](#), [biological diversity](#), [organism](#), [behavior](#), [camouflage](#), [environment](#), [climate](#), [adaptation](#), [plant](#), [characteristic](#), [reproduce](#), [trait](#), [migration](#), [feature](#), [hibernate](#)

UNIT: Ecosystems and Environment

3.4 Habitats

Recommended Timeframe: (5 Days)

Benchmarks:

SC.2.L.17.2 - Recognize and explain that living things are found all over Earth, but each is only able to live in habitats that meet its basic needs. (Cognitive Complexity/Depth of Knowledge Rating: Moderate)

Key Resources:

Explore: [Are There Different Habitats? How Do Plant and Animal Characteristics Help Them Live in Their Environment?](#) (CIT & TEI)

(SC.2.L.17.2)

Explore More Resources: [Animals \[Home Sweet Home\]](#) (Fun-damental)

(SC.2.L.17.2)

Explain: [Explaining Habitats](#)

(SC.2.L.17.2)

Elaborate: [STEM in Action: Making Home for Animals](#)

(SC.2.L.17.2)

Hands-On Activities &
Hands-On Labs:

[Habitat Diorama](#)

[Habitats Assessment](#)

Key Vocabulary:

[season](#), [tropical](#), [protect](#), [ocean](#),
[shelter](#), [desert](#), [survive](#),
[habitat](#), [grassland](#), [animal](#),
[Earth](#), [organism](#), [depend](#),
[camouflage](#), [environment](#),
[climate](#), [adaptation](#), [weather](#),
[material](#), [plant](#), [natural](#)
[resources](#), [characteristic](#), [water](#),
[reproduce](#), [wetland](#), [trait](#),
[flower](#), [migration](#), [rain](#)
[forest](#), [feature](#), [hibernate](#),
[Arctic](#)

UNIT: Nutrition and Health

4.1 Body Features

Recommended Timeframe: (4 Days)

Benchmarks:

SC.2.L.14.1 - Distinguish human body parts (brain, heart, lungs, stomach, muscles, and skeleton) and their basic functions. (Cognitive Complexity/Depth of Knowledge Rating: Moderate)

Key Resources:

Engage: [Discussing Bodies of People and Animals](#) (TEI)

(SC.2.L.14.1)

Explore: [What Are Some Human Body Parts?](#) (CIT & TEI)

(SC.2.L.14.1)

Explore: [Why Do We All Have the Same Body Parts? What Do Different Body Parts Do?](#) (CIT)

(SC.2.L.14.1)

Explore: [Brain, Lungs, and Heart](#) (Reading Passage)

(SC>2.L.14.1)

Explain: [Explaining Body Features](#)

(SC.2.L.14.1)

Hands-On Activities &

Hands-On Labs:

[Heart Rate](#)

[Body Features Assessment](#)

Key Vocabulary:

[digestion](#), [organ](#), [blood](#), [brain](#),
[oxygen](#), [stomach](#), [bone](#), [muscle](#),
[skin](#), [intestine](#), [lungs](#), [pulse](#),
[skeleton](#)

UNIT: Nutrition and Health

4.2 Nutrition

Recommended Timeframe: (5 Days)

Benchmarks:

HE.2.B.5.2 - Name healthy options to health-related issues or problems.

Key Resources:

Engage: [Inside Different Foods](#) (Video)

(HE.2.B.5.2)

Explore: [How Do I Know If Food Is Healthy? What Are the Five Major Food Groups?](#) (CIT & TEI)

(HE.2.B.5.2)

Explore: [Nutritious or Not](#) (Skill Builder)

(HE.2.B.5.2)

Explore: [The MyPlate Guidelines](#) (Video)

(HE.2.B.5.2)

Elaborate: [STEM Project Starter: Make a Healthy Granola Bar](#)

(HE.2.B.5.2)

Explain: [Explaining Nutrition](#)

(HE.2.B.5.2)

Hands-On Activities &

Hands-On Labs:

[MyPlate](#)

[Nutrition Assessment](#)

Key Vocabulary:

[freshwater](#), [calcium](#), [fruit](#), [fish](#),
[nutrients](#), [protein](#)

UNIT: Matter and Energy

5.1 Volume

Recommended Timeframe: (3 Days)

Benchmarks:

SC.2.P.8.1 - Observe and measure objects in terms of their properties, including size, shape, color, temperature, weight, texture, sinking or floating in water, and attraction and repulsion of magnets.
(Cognitive Complexity/Depth of Knowledge Rating: Low)

SC.2.P.8.6 - Measure and compare the volume of liquids using containers of various shapes and sizes.
(Cognitive Complexity/Depth of Knowledge Rating: Moderate)

Key Resources:

Engage: [Taking Up Space](#) (CIT & TEIs)

(SC.2.P.8.1)

Explore: [What is Volume?](#) (CIT & TEI)

(SC2.P.8.6)

Explore: [Measuring Liquid Volume](#) (Video)

(SC2.P.8.6)

Explore: [Can Containers of Different Shapes Have the Same Volume?](#) (CIT)

(SC2.P.8.6, SC.2.P.8.1)

Explain: [Explaining Volume](#)

(SC2.P.8.6, SC.2.P.8.1)

Hands-On Activities &
Hands-On Labs:

[STEM Project Starter:
Different Shape, Same
Volume?](#)

[Volume Assessment](#)

Key Vocabulary:

[solid](#), [volume](#)
[\(matter\)](#), [weight](#), [mass](#), [matter](#)

UNIT: Matter and Energy

5.2 Weight

Recommended Timeframe: (4 Days)

Benchmarks:

SC.2.P.8.1 - Observe and measure objects in terms of their properties, including size, shape, color, temperature, weight, texture, sinking or floating in water, and attraction and repulsion of magnets.
(Cognitive Complexity/Depth of Knowledge Rating: Low)

Key Resources:

Engage: [What is Heavy, and What is Light?](#) (CIT & Video)

(SC.2.P.8.1)

Explore: [What Is Weight?](#) (CIT, Video and TEI)

(SC.2.P.8.1)

Explore: [How Can You Measure Weight?](#) (CIT)

(SC.2.P.8.1)

Hands-On Activities &
Hands-On Labs:

[STEM Project Starter: The Weight of Things](#)

[Weight Assessment](#)

Key Vocabulary:

[scale](#), [weight](#), [kilogram](#),
[force](#), [volume](#)
[\(matter\)](#), [observe](#), [measure](#),
[balance](#), [gravity](#), [matter](#)

UNIT: Matter and Energy

5.3 Magnetism

Recommended Timeframe: (4 Days)

Benchmarks:

SC.2.P.8.1 - Observe and measure objects in terms of their properties, including size, shape, color, temperature, weight, texture, sinking or floating in water, and attraction and repulsion of magnets.
(Cognitive Complexity/Depth of Knowledge Rating: Low)

Key Resources:

Elaborate: [STEM Project Starter: Magnetism in the Classroom](#) (CIT) **Note: Introduce this STEM PS at the beginning of the sequence and students can come back to the project at the end to demonstrate their understanding.*

(SC.2.P.8.1)

Explore: [What is a Magnet?](#) (CIT & Video)

(SC.2.P.8.1)

Explore: [What Kinds of Objects Are Attracted to Magnets?](#) (CIT & TEI)

(SC.2.P.8.1)

Explore: [Magnetic Forces and Fields](#) (Video)

(SC.2.P.8.1)

Explain: [Explaining Magnetism](#)

Hands-On Activities &
Hands-On Labs:

[STEM Project Starter:
Magnetism in the Classroom](#)

[Magnetism Assessment](#)

Key Vocabulary:

[magnetic field](#),
[magnet](#), [repel](#), [attract](#),
[magnetic](#)

UNIT: Matter and Energy

5.4 Temperature

Recommended Timeframe: (3 Day)

Benchmarks:

SC.2.P.8.1 - Observe and measure objects in terms of their properties, including size, shape, color, temperature, weight, texture, sinking or floating in water, and attraction and repulsion of magnets.
(Cognitive Complexity/Depth of Knowledge Rating: Low)

Key Resources:

Engage: [Measuring Temperature](#) (CIT & Video)
(CS.2.P.8.1)
Explore: [Getting to Know: Temperature](#) (Reading Passage)
(CS.2.P.8.1)
Explore: [How Are Thermometers Used to Measure Temperature?](#) (CIT)
(CS.2.P.8.1)
Explore: [Temperature](#) (Exploration)
(CS.2.P.8.1)
Explain: [Explaining Temperature](#)
(CS.2.P.8.1)

Hands-On Activities &
Hands-On Labs:
[Reading Temperatures](#)

[Temperature Assessment](#)

Key Vocabulary:
[solid](#), [gas](#), [thermometer](#)
[\(weather\)](#), [freeze](#), [melt](#), [heat](#),
[temperature](#)
[\(general\)](#), [temperature](#)
[\(weather\)](#), [liquid](#)

UNIT: Matter and Energy

5.5 Sinking and Floating

Recommended Timeframe: (4 Days)

Benchmarks:

SC.2.P.8.1 - Observe and measure objects in terms of their properties, including size, shape, color, temperature, weight, texture, sinking or floating in water, and attraction and repulsion of magnets.
(Cognitive Complexity/Depth of Knowledge Rating: Low)

Key Resources:

Engage: [What Sinks and What Floats?](#) (CIT and 1st TEI)

(SC.2.P.8.1)

Explore: [Sink or Float](#) (Reading Passage)

(SC.2.P.8.1)

Explore: [Why Do Objects Sink or Float?](#) (CIT)

(SC.2.P.8.1)

Explore: [Density](#) (Exploration)

(SC.2.P.8.1)

Explain: [Sinking and Floating](#)

(SC.2.P.8.1)

Hands-On Activities &
Hands-On Labs:

[Sink or Float?](#)

[Sinking and Floating
Assessment](#)

Key Vocabulary:

[solid](#), [density](#), [mass](#), [pressure](#),
[resource](#), [force](#), [conservation
of mass](#), [matter](#), [surface](#), [fluid](#),
[gas](#), [air](#), [liquid](#), [predict](#)

UNIT: Matter and Energy

5.6 Dissolving and Evaporating

Recommended Timeframe: (4 Days)

Benchmarks:

SC.2.E.7.3 - Investigate, observe and describe how water left in an open container disappears (evaporates), but water in a closed container does not disappear (evaporate). (Cognitive Complexity/Depth of Knowledge Rating: High)

Key Resources:

Engage: [Discovery Science Alliance: Investigating Heat](#) (Video)
(SC.2.E.7.3)
Explore: [What is Evaporation?](#) (CIT & TEI)
(SC.2.E.7.3)
Explore: [Evaporation](#) (Video)
(SC.2.E.7.3)
Explain: [Explaining Dissolving and Evaporating](#)
(SC.2.E.7.3)

Hands-On Activities &
Hands-On Labs:
[How Does a Cloth Dry?](#)

[Dissolving and Evaporating
Assessment](#)

Key Vocabulary:
[salt](#)
[water](#), [sugar](#), [solute](#), [solvent](#),
[matter](#), [evaporation](#), [solution](#),
[dissolve](#), [water](#)

UNIT: Matter and Energy

5.7 Changes in Matter

Recommended Timeframe: (6 Days)

Benchmarks:

SC.2.P.9.1 - Investigate that materials can be altered to change some of their properties, but not all materials respond the same way to any one alteration. (Cognitive Complexity/Depth of Knowledge Rating: High)

Key Resources:

Engage: [Physical Changes](#) (Video)

(SC.2.P.9.1)

Explore: [How Can Temperature Change Materials?](#) (CIT & Video)

(SC.2.P.9.1)

Explore: [It's a Property](#) (Video)

(SC.2.P.9.1)

Explore: [How Can I Tell If Matter Has Changed? What Are Some of the Ways That You Can Change Materials?](#) (CIT & TEI)

(SC.2.P.9.1)

Explore: [Things That Change](#) (Fun-damental)

(SC.2.P.9.1)

Explain: [Explaining Changes in Matter](#)

(SC.2.P.9.1)

Hands-On Activities &

Hands-On Labs:

[Forms of Water](#)

[Changing Matter through](#)

[Grinding](#)

[Changes in Matter Assessment](#)

Key Vocabulary:

[solid](#), [property](#), [weight](#), [mass](#),

[pure substance](#),

[measure](#), [melt](#), [color](#), [gas](#),

[temperature \(general\)](#),

[motion](#), [liquid](#), [sound](#)

UNIT: Matter and Energy

5.8 States of Matter

Recommended Timeframe: (5 Days)

Benchmarks:

SC.2.P.8.2 - Identify objects and materials as solid, liquid, or gas. (Cognitive Complexity/Depth of Knowledge Rating: Low)

SC.2.P.8.3 - Recognize that solids have a definite shape and that liquids and gases take the shape of their container. (Cognitive Complexity/Depth of Knowledge Rating: Low)

SC.2.P.8.4 - Observe and describe water in its solid, liquid, and gaseous states. (Cognitive Complexity/Depth of Knowledge Rating: Low)

Key Resources:

Engage: [Summer Ice Pop](#) (Image)
(SC.2.P.8.4)

Explore: [What Is A Solid?](#) (CIT & TEI)
(SC.2.P.8.3, SC.2.P.8.4)

Explore: [States of Matter](#) (Reading Passage)
(SC.2.P.8.3, SC.2.P.8.4)

Explore: [Liquid](#) (Video)
(SC.2.P.8.3, SC.2.P.8.4)

Explore: [What Is A Gas?](#) (CIT)
(SC.2.P.8.3, SC.2.P.8.4)

Explore: [How Can Matter Change Form?](#) (CIT & TEI)
(SC.2.P.8.3, SC.2.P.8.4)

Explain: [Explaining States of Matter](#)
(SC.2.P.8.2, SC.2.P.8.3, SC.2.P.8.4)

Hands-On Activities &
Hands-On Labs:
[The Forms of Water](#)

[States of Matter Assessment](#)

Key Vocabulary:

[solid](#), [steam](#), [volume](#)
[\(matter\)](#), [matter](#), [evaporation](#),
[gas](#), [freeze](#), [state of](#)
[matter](#), [air](#), [liquid](#), [water](#)

UNIT: Energy and Motion

6.1 Force and Motion

Recommended Timeframe: (5 Days)

Benchmarks:

SC.2.P.13.1 - Investigate the effect of applying various pushes and pulls on different objects. (Cognitive Complexity/Depth of Knowledge Rating: High)

SC.2.P.13.4 - Demonstrate that the greater the force (push or pull) applied to an object, the greater the change in motion of the object. (Cognitive Complexity/Depth of Knowledge Rating: Moderate)

Key Resources:

Engage: [Things Moving](#) (Video)

(SC.2.P.13.1)

Explore: [What Is Motion?](#) (CIT & Video)

(SC.2.P.13.1)

Explore: [What Forces Make Things Move?](#) (CIT)

(SC.2.P.13.1)

Explore: [What Happens When We Push or Pull an Object Strongly?](#) (CIT)

(SC.2.P.13.4)

Explore: [Making Things Move](#) (Fundamental)

(SC.2.P.13.1)

Explain: [Explaining Force and Motion](#)

(SC.2.P.13.1, SC.2.P.13.4)

Hands-On Activities &

Hands-On Labs:

[Cars in Motion](#)

[Force and Motion Assessment](#)

Key Vocabulary:

[weight](#), [mass](#), [force](#), [friction](#),

[gravity](#), [motion](#)

UNIT: Energy and Motion

6.2 Gravity

Recommended Timeframe: (4 Days)

Benchmarks:

SC.2.P.13.3 - Recognize that objects are pulled toward the ground unless something holds them up.
(Cognitive Complexity/Depth of Knowledge Rating: Low)

Key Resources:

Engage: [Slam Dunk Challenge](#) (Hands-On Activity)
(SC.2.P.13.3)
Explore: [Why Do Leaves Fall? What Is Gravity?](#) (CIT & Video)
(SC.2.P.13.3)
Explore: [Moving Against Gravity](#) (Reading Passage)
(SC.2.P.13.3)
Explain: [Explaining Gravity](#)
(SC.P.13.3)

Hands-On Activities &
Hands-On Labs:
[Defying Gravity](#)

[Gravity Assessment](#)

Key Vocabulary:
[gravity](#), [force](#)

UNIT: Energy and Motion

6.3 Energy Sources

Recommended Timeframe: (5 Days)

Benchmarks:

SC.2.E.7.2 - Investigate by observing and measuring, that the Sun's energy directly and indirectly warms the water, land, and air. (Cognitive Complexity/Depth of Knowledge Rating: High)

SC.2.P.10.1 - Discuss that people use electricity or other forms of energy to cook their food, cool or warm their homes, and power their cars. (Cognitive Complexity/Depth of Knowledge Rating: Low)

Key Resources:

Engage: [Electrical Energy](#) (Image)

(SC.2.P.10.1)

Explore: [Why Is Energy Important?](#) (CIT)

(SC.2.P.10.1)

Explore: [Is Electricity a Kind of Energy? What Do People Use Electricity and Other Forms of Energy for?](#) (CIT & [Reading Passage](#))

(SC.3.P.11.2)

Explore: [Energy Makes It Happen](#) (Fun-damental)

(SC.2.P.10.1, SC.2.E.7.2)

Explore: [Are There Other Kinds of Energy? What Kinds of Energy Do Different Things Need?](#) (CIT)

(SC.2.P.10.1, SC.2.E.7.2)

Explain: [Explaining Energy Sources](#)

(SC.2.P.10.1, SC.2.E.7.2)

Hands-On Activities &
Hands-On Labs:

[Make a Solar Oven](#)

[Energy Sources Assessment](#)

Key Vocabulary:

[natural gas](#), [fuel](#),

[electric](#), [energy](#), [animal](#), [power](#)

UNIT: Energy and Motion

6.4 Magnets and Magnetism

Recommended Timeframe: (6 Days)

Benchmarks:

SC.2.P.13.2 - Demonstrate that magnets can be used to make some things move without touching them. (Cognitive Complexity/Depth of Knowledge Rating: Low)

Key Resources:

Elaborate: [STEM Project Starter: Attract or Not Attract](#) (CIT & Activity) **Note: Introduce this STEM PS at the beginning of the sequence and students can come back to the project at the end to demonstrate their understanding.*

(SC.2.P.13.2)

Explore: [What is a Magnet?](#) (CIT & Video & TEI)

(SC.2.P.13.2)

Explore: [What Does a Magnet Attract? What Types of Objects Are Attracted to Magnets?](#)

(SC.2.P.13.2)

Explore: [Electricity and Magnetism](#) (Fun-damental) *Students should complete only the Magnets section of the activity.*

(SC.2.P.13.2)

Explore: [How Can a Magnet Move Something without Touching It?](#) (CIT, Video & TEI)

(SC.2.P.13.2)

Explain: [Explaining Magnets and Magnetism](#)

(SC.2.P.13.2)

Hands-On Activities &
Hands-On Labs:

[STEM Project Starter: Attract or Not Attract](#)

[Magnets and Magnetism Assessment](#)

Key Vocabulary:

[attract](#), [magnetite](#), [magnet](#),
[repel](#), [pole](#), [motion](#)