

4th Grade Science Curriculum Guide

Welcome to the 4th Grade Science Scope and Sequence Curriculum Guide. Elevate Science is our adopted textbook and is available in both a consumable workbook and digitally. The Elevate platform is designed to empower students to become more self-directed, curious, and accountable by implementing a 3-dimensional instructional model. This model aligns with the NGSS framework.

The Lab Investigations (highlighted in green) are **required** as they have been mandated by NY State. These have been incorporated into the Scope and Sequence for grades 3, 4 & 5. The NYS Lab investigations and topics that need to be emphasized will be highlighted in teal. The 4 required NYS Elementary Lab Investigations will be assessed on the 5th Grade Written Exam and account for 15% of the final grade. This 5th grade Computer Based Test is scheduled every year at the end of April or early May.

Supplemental Resources have been provided through our district apps to ensure a deeper understanding of the content and scaffold learning. District used Apps included in this document are Science A-Z, Vocabulary A-Z, Nearpod, Discovery Education, and NewsELA.

4th Grade Science Year at a Glance

Topic 1-Energy and Motion

***NYS Lab Investigation (Light It Up) (Mandatory)**

Topic 2 Human Uses of Energy

Topic 3-Waves and Information

Topic 4- Earth's Features

Topic 5- Earth's Natural Hazards

Topic 7-Structures and Functions

***NYS Lab Investigation (Circle of Life) (Mandatory)**

Topic 8-Human Body Systems

Topic 6-The History of Planet Earth

Elevate 4th Grade Science

PHYSICAL SCIENCE Topic 1-*Energy and Motion*

Light It Up New York State Required Investigation

Performance Expectations:

- 4-PS3-1. Use evidence to construct an explanation relating the speed of an object to the energy of that object.
- 4-PS3-2. Make observations to provide evidence that energy is conserved as it is transferred and/or converted from one form to another.
- 4-PS3-3. Ask questions and predict outcomes about the changes in energy that occur when objects collide.
- 4-PS3-4. Apply scientific ideas to design, test, and refine a device that converts energy from one to another.
- 4-ESS3-1. Obtain and combine information to describe that energy and fuels are derived from natural resources and their uses affect the environment.

Resources (ELA Connection):

[The Power of Circuits](#)

[Invention of Bulb](#)

Science A- Z: [Energy: Movement, Changes, and Sources](#)

Science A-Z: [An Introduction to Circuits](#)

[Roller Coaster Physics](#)

Virtual Tour [Vehicle Research Center](#) (connects to Lessons 1 and 2)

Essential Question: What is energy, and how does it relate to motion?

Literacy Skills: making predictions, making inferences, record and analyze data, and evaluate outcomes.

Language Objectives: Students will construct written responses using correct punctuation (periods/question marks/exclamation points).

Vocabulary Lesson 1 energy, potential energy, kinetic energy, speedre Lesson 2 collision Lesson 3 heat, radiation, light, sound, wave Lesson 4 electric charge, electric current, conductor, insulator, resistor	Science and Engineering Practices Science and Engineering Practices (SEP) SEP.6 Constructing explanations and designing solutions SEP.2 Developing and using models SEP.3 Planning and carrying out investigations SEP.1 Asking questions and defining problems SEP.7 Engaging in argument from evidence	Disciplinary Core Ideas PS3.A Definitions of Energy PS3.B Conservation of energy and energy transfer PS3.C Relationship between energy and forces	Cross Cutting Concepts Cross Cutting Concepts (CCC) CCC.2 Cause and effect CCC.5 Energy and Matter
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Light It Up New York State Required Investigation

Lab Investigations

ELS Lab Investigations Energy: Light It Up

Nearpod:

Flocabulary circuits

Discovery Ed: Electric Circuits interactive

[Discovery Ed Electric Circuits Interactive](#)

[Circuit Construction Kit DC Virtual Lab](#)

[Electrical Circuits: What's Wrong](#)

[Getting Wired Spanish Version](#)

[Electric Circuits Spanish Version](#)

[Current Electricity Spanish Version](#)

Elevate 4th Grade Science

PHYSICAL SCIENCE Topic 2 *Human Uses of Energy*

Performance Expectations:

4-PS3-4. Apply scientific ideas to design, test, and refine a device that converts energy from one to another.

4-ESS3-1. Obtain and combine information to describe that energy and fuels are derived from natural resources and their uses affect the environment.

Essential Question: How do we convert energy to meet our needs?

Literacy Skill: Use text features

Vocabulary

Lesson 1 fuel, combustion, turbine, generator, battery

Lesson 2 fossil fuel, coal, petroleum, natural gas, nuclear fuel, uranium

Lesson 3 geothermal energy, hydropower

Lesson 4 emission, pollutant, scrubber, greenhouse gas

Science and Engineering Practices (SEP)

SEP.6 Constructing explanations and designing solutions

SEP.1 Asking questions and defining problems

SEP.8 Obtaining, evaluating, communicating information

Disciplinary Core Ideas (DCI)

PS3.D Energy in chemical processes in everyday life

PS3.B Conservation of energy and energy transfer

Cross Cutting Concepts (CCC)

CCC.2 Cause and effect

CCC.5 Energy and matter

Overview: In this topic students will learn about energy conversions, renewable and non-renewable energy resources and the environmental impacts of energy use.

Topic Launch: uConnect Lab p. 54 [How are energy resources used?](#)

Lesson 1 Energy Conversions: [Elevate Video: Natural Resources and Energy](#)

Elevate Student Book p.56-62

U Investigate Lab p. 57 [How can a potato provide energy to a lightbulb?](#)

Elevate Interactivity: [Electrical Energy Changes Forms](#)

This digital activity provides an opportunity for students to identify and describe common devices that transform electrical into a different form.

Nearpod: [Energy Transfer](#)

Drag & Drop activity, students will identify varying forms of energy transfer

Discovery Ed video [Energy Conversions](#)

Provides examples of different forms of energy converting to each other, and explains why the main types of energy are interchangeable

Newsela [How to Understand the Transfer of Energy and Matter](#)

Lesson 2 Nonrenewable Energy Sources: [Elevate Video: Nonrenewable Energy Sources](#)

Elevate Student Book p.64-71

U Investigate Lab p.65 [How do we find oil?](#)

Nearpod [Renewable and Non renewable energy](#)

Students learn about renewable and nonrenewable resources used to make energy.

Science A- Z Focus Book: [Energy Resources](#)

Newsela ["Nonrenewable Energy"](#)

Lesson 3 Renewable Energy Sources: [Elevate Video Renewable Energy Sources](#)

Elevate Student Book p.74-79

U Investigate Lab p.75 [How does a windmill capture wind energy?](#)

Nearpod [How does renewable energy work?](#)

Students will learn about renewable energy and come up with recommendations for the best energy solution for a given situation.

Discovery Ed [Energy Smart Classroom Activity](#)

Students will explore the idea of renewable energy by playing a game that teaches them about different kinds of sustainable energy.

Newsela ["Types of Renewable Energy"](#)

Lesson 4 Environmental Impacts of Energy Use: [Elevate Video Environmental Impacts of Energy Use](#)

Elevate Student Book p.84-90

U Investigate Lab p.85 [Why is oil cleanup so hard?](#)

Nearpod [Human Impact](#)

In this VR lesson, students will explore human impact and solutions to keep the land, water, and other living organisms healthy.

Discovery Ed [Home Planet: Restoring the Land and Soil](#)

The increase in urban development, including the increased use of pesticides, chemical fertilizers, and pollutants, has jeopardized healthy soil.

[Human Activity and Increased Pollution](#)

Reports that human activities have led to an increase in air pollution and acid rain, and states that chemicals released by fossil fuels mix with other pollutants to make smog.

Newsela ["Scientists are studying a smart home that makes its own energy"](#)

Elevate 4th Grade Science

PHYSICAL SCIENCE Topic 3- *Waves and Information*

Performance Expectations:

4-PS4-1 Develop a model of waves to describe patterns in terms of amplitude and wavelength and that waves can cause objects to move.

4-PS4-2 Develop a model to describe that light reflecting from objects and entering the eye allows objects to be seen.

4-PS4-3 Generate and compare multiple solutions that use patterns to transfer information.

Essential Question: How do we use waves to communicate?

Literacy Skill: Use evidence from text

Vocabulary Lesson 1 wave, amplitude, wavelength, frequency, transverse, crest, trough, longitudinal Lesson 2 wave period, circular wave, plane wave, superposition Lesson 3 ray, reflect, refract, absorb Lesson 4 signal, transmitter, antennae, receiver, digital, analog	Science and Engineering Practices (SEP) SEP.2 Developing and using models SEP.6 Constructing explanations and designing solutions	Disciplinary Core Ideas (DCI) PS4.A Wave properties PS4.B Electromagnetic radiation PS4.C Information technologies and instrumentation ETS1.C Optimizing the design solution	Cross Cutting Concepts (CCC) CCC.4 Patterns CCC.2 Cause and effect
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Overview: In this topic students will explore different ways that waves are used to transmit and receive information.

Topic Launch: uConnect Lab p. 104 [How do we describe waves?](#)

Lesson 1 Properties of Waves: [Elevate Video Properties of Waves](#)

Elevate Student Book p.106-112

U Investigate Lab p.107 [How does a wave carry energy?](#)

*Nearpod [Wave Properties Flocabulary Video](#)
[Wave Properties Draw It activity](#)*

Discovery Ed [Properties of Waves video](#)

Discusses some of the properties of waves including amplitude, wavelength, and frequency.

Newsela ["Measurable Properties of Waves"](#)

Lesson 2 Patterns of Waves: [Elevate Video Patterns of Waves](#)

Elevate Student Book p.116-122

U Investigate Lab p.117 [What patterns can waves make?](#)

Elevate Interactivity: [The Doppler Effect](#)

This digital activity provides an opportunity for students to explore how the Doppler effect changes our perception of sound waves.

Discovery Ed [Waves Intro](#)

In the Exploration, students can turn on a faucet, audio speaker, or laser, and discover what sound looks like in wave form or how frequency determines the color of light.

Newsela ["Drumming beats speech for distant communication"](#)

Lesson 3 Waves and the Electromagnetic Spectrum: [Elevate Video-Light Waves](#)

Elevate Student Book p.124-131

U Investigate Lab p.125 [How is light reflected?](#)

Nearpod [Light Flocabulary Video](#)

In this lesson, students will learn about the properties of light. They'll learn how it can be reflected, absorbed, or transmitted through different materials, and even how it makes the ocean look blue!

[Light \(Dr. Binocs\)](#)

Discovery Ed [Reflection and Refraction](#)

Explains the terms reflection and refraction, which are two ways in which light reacts with the surface of an object.

Newsela [What is the visible light spectrum?](#)

Lesson 4 Waves and Information: [Elevate Video-Waves and Information](#)

Elevate Student Book p.134-139

U Investigate Lab p.135 [How can information from waves be translated?](#)

Nearpod [Time to Climb-Wave Properties](#)

In this 3-5 Time to Climb, students will identify wave properties.

Newsela [How do waves behave?](#)

Elevate 4th Grade Science

EARTH SCIENCE Topic 4-Earth's Features

Performance Expectations:

4-ESS2-1 Make observations and/or measurements to provide evidence of the effects of weathering or the rate of erosion by water, ice, wind, or vegetation.

4-ESS2-2 Analyze and interpret data from maps to describe patterns of Earth's features.

Essential Question: How can you use maps to understand Earth's features?

Literacy Skill: Draw Conclusions

Vocabulary

Lesson 1 symbol, legend, compass rose

Lesson 2 canyon, butte, fault, trench

Lesson 3 igneous, sedimentary, metamorphic

Lesson 4 weathering, erosion

Science and Engineering Practices (SEP)

SEP.2 Developing and using models

SEP.3 Planning and Carrying Out Investigations

SEP.4 Analyzing and interpreting data

Disciplinary Core Ideas (DCI)

ESS2.B Plate Tectonics and large-scale system interactions

ETS1.B Developing possible solutions

ESS2.A Earth materials and systems

ESS2.E Biogeology

Cross Cutting Concepts (CCC)

CCC.1 Patterns

CCC.2 Cause and Effect

Overview: In this topic students will learn how to identify landforms, rocks and minerals. They will interpret maps, data and will learn about weathering and erosion.

Topic Launch uConnect Lab p.154 [How can rain affect land?](#)

Lesson 1 Maps and Data: [Elevate Video- Maps and Data](#)

Elevate Student Book p.156-162

U Investigate Lab p.157 [How do tools help us?](#)

Virtual Lab [Where Would You Build the Telescope?](#)

Discovery Ed [Different Types of Maps video](#)

The program illustrates many examples of maps, including road maps, population maps, topographical maps, and global positioning systems.

Newsela ["How to read a topographic map"](#)

Lesson 2 Patterns of Earth's Features: [Elevate Video-Patterns of Earth's Features](#)

Elevate Student Book p.166-172

U Investigate Lab p.167 [What are major landforms?](#)

[Interactivity: The Shape of the Land](#)

Nearpod [Time to Climb: Earth's Landforms](#)

Students will show their understanding of Earth's landforms with Nearpod's interactive quiz game, Time to Climb

Discovery Ed [Exploring Landforms video](#)

This video program takes a fascinating look at the many different features found on Earth.

Newsela ["Earth's features in the United States"](#)

Lesson 3 Rocks, Minerals, and Soil: [Elevate Video- Rocks, Minerals, and Soil](#)

Elevate Student Book p.174-181

U Investigate Lab p.175 [How can you classify minerals?](#)

Nearpod [Types of Rocks](#)

Students learn about types of rocks and the rock cycle.

[Types of Rocks Drag and Drop](#)

Students will identify characteristics of the three types of rocks and sort rock samples into the appropriate category.

Discovery Ed [Real Word Science: Rocks and Minerals](#)

Explores the features and characteristics of rocks and minerals.

Newsela ["How Soil Forms"](#)

Lesson 4 Weathering and Erosion: [Elevate Video-Weathering and Erosion](#)

Elevate Student Book p.184-191

U Investigate Lab p 185 [How can a rock wear away?](#)

Nearpod [What is Soil Erosion and Conservation Dr. Binocs video](#)

Students learn about the importance of soil and how natural and man-made influences are causing it to erode.

Discovery Ed [Weathering and Erosion: Paul and his Science Pals](#)

Paul and his science pals learn about how weathering causes erosion and leads to deposition.

Newsela ["Erosion and Weathering"](#)

Elevate 4th Grade Science

EARTH SCIENCE Topic 5-*Earth's Natural Hazards*

Performance Expectations:

4-ESS3-2 Generate and compare multiple solutions to reduce the impacts of natural Earth processes on humans.

Essential Question: What impact do natural hazards have?

Literacy Skill: Cause and Effect

Vocabulary

Lesson 1 fault, earthquake, tsunami, volcano, eruption

Lesson 2 flood, drought, avalanche, landslide

Lesson 3 wildfire

Science and Engineering Practices (SEP)

SEP.2 Developing and using models

SEP.6 Constructing explanations

Disciplinary Core Ideas (DCI)

ESS3.B Natural Hazards

ETS1.B Developing possible solutions

Cross Cutting Concepts (CCC)

CCC.2 Cause and effect

Overview: In this topic students will build on their knowledge of Earth's natural hazards.

Topic Launch: uConnect Lab [How can you reduce the impact of rapidly sliding soil?](#)

Lesson 1 Tectonic Hazards: [Elevate Video Tectonic Hazards](#)

Elevate Student Book p.208-214

U Investigate lab p.209 [How can a large wave affect land?](#)

Nearpod [Earthquakes Flocabulary video](#)

Discovery Ed [San Francisco Earthquakes](#)

Uncovers the geology beneath San Francisco that makes the area prone to severe earthquakes and explores the science behind how and why earthquakes occur.

Newsela ["The Science of Earthquakes"](#)

Lesson 2 Weather Hazards: [Elevate Video: Weather Hazards](#)

Elevate Student Book p.218-223

U Investigate lab p. 219 [How does snow sliding quickly down a mountain impact people?](#)

Nearpod [Extreme Weather](#)

In this VR lesson, students will explore climate regions of the world and consider solutions to some of the biggest weather challenges.

Discovery Ed [Storms](#)

Follow the path of a tornado and enter the eye of a hurricane as you learn how storms start, move, and dissipate.

Newsela ["How tornadoes form and why they're so unpredictable"](#)

Lesson 3 Impacts of Natural Hazards: [Elevate Video-Impacts of Natural Hazards](#)

Elevate Student Book p.226-231

U Investigate lab p.227 [Where should you build an earthquake-safe structure?](#)

Nearpod [Preparing for Wildfires](#)

In this VR lesson, students will learn about natural disasters.

Newsela ["Hope after wildfire: Tiny sequoias could grow into giants"](#)

Elevate 4th Grade Science

EARTH SCIENCE Topic 6- *The History of Planet Earth*

Performance Expectations:

4-ESS1-1 Identify evidence from patterns in rock formations and fossils in rock layers to support an explanation for changes in a landscape over time.

Essential Question: What evidence can you find that Earth's surface has changed?

Literacy Skill: Sequence

Vocabulary Lesson 1 fossil, strata Lesson 2 key bed	Science and Engineering Practices (SEP) SEP. 6 Constructing explanations and designing solutions	Disciplinary Core Ideas (DCI) ESS1.C The history of planet Earth	Cross Cutting Concepts (CCC) CCC.1 Patterns
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Overview: In this topic students will build on their knowledge of fossil evidence as they explore patterns and changes in fossils and rock strata.

Topic Launch: u Connect Lab p. 246 [Where are fossils found in rock layers?](#)

Lesson 1 Patterns in Fossils and Rock Formations: [Elevate Video- Patterns in Fossils and Rock Formations](#)

Elevate Student Book p.248-253

u Investigate Lab p.249 [What patterns do fossils follow?](#)

Nearpod [Fossil Formation Draw It](#)

Students will strengthen their understanding of how fossils form by completing a Draw It activity.

Discovery Ed [Rock Formations in Arches National Park](#)

Summarizes the various types of pedestals, buttes, and arches that make for a mystical environment in Arches National Park.

Newsela ["What are sedimentary rocks?"](#)

Lesson 2 Evidence of Change from Fossils and Rock Formations: [Elevate Video- Evidence of Change from Fossils and Rock Formations](#)

Elevate Student Book p.258-265

u Investigate Lab p.259 [How can rock layers show change?](#)

Elevate Virtual Lab: [Layers of Time](#)

This virtual lab allows students to identify evidence from patterns in rock formations and fossils in rock layers.

Discovery Ed [Changed Rocks](#)

Discusses metamorphic rocks, which are rocks that have changed type as a result of heat or pressure.

Newsela ["How can you tell a rock's age?"](#)

LIFE SCIENCE Topic 7- Structures and Functions

Circle of Life New York State Required Investigation

Performance Expectations:

4-PS4-2. Develop a model to describe the light reflecting from objects and entering the eyes, allowing objects to be seen.

4-LS1-1. Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and reproduction.

4-LS1-2. Use a model to describe that animals receive different types of information through their senses, process the information in their brain, and respond to the information in different ways.

Resources (ELA Connection):

Virtual Tour [United States Botanic Garden](#)

Video: [Habitats of Animals](#)

Students learn about animal classification and the habitat in which they live. They also learn about examples of different animals that live in each of the main habitat types and how they can survive there.

Virtual Tour [Wild Animal Sanctuary](#)

Video: [Weird Animals in the World](#)

In this video, you will find some very weird animals you might not even know existed.

Elevate Enrichment Activity: uEngineer It: [Eye See You video](#)

uEngineer It: [eText Eye See You Activity](#)

Essential Question: How do plant and animal structures support growth and survival?

Literacy Skill: making predictions, making inferences, record and analyze data, and evaluate outcomes.

Language Objectives: The students will be able to explain and summarize how plant and animal structures support growth and survival.

Vocabulary: Lesson 1 structure, function, ovary, vascular system Lesson 2 cuticle, sepal, stamen, pistil Lesson 3 skeleton, heart, lungs, gills, brain Lesson 4 exoskeleton Lesson 5 extinct	Science and Engineering Practices SEP.2 Developing and using models SEP.7 Engaging in argument from evidence	Disciplinary Core Ideas LS1.A Structure and Function LS1.D Information Processing	Cross Cutting Concepts CCC.4 System and system models Cause and Effect
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Overview: In this topic, students will investigate the structures and functions of plants and animals.

*****PRIOR TO CLICKING INTO LINK, BE SURE TO SIGN INTO THE CHOSEN PLATFORM*****

Topic Launch: Nearpod Lesson: [Complex Life Cycles](#)

Lesson 1: Internal Structures and Functions of Plants

Elevate Student book p. 282-289 [Video: Internal Structures and Functions of Plants](#)

uInvestigate Lab p. 283 What Parts are Inside a Flower?

Nearpod Activity [Parts of a Plant](#)

In this lesson, students will learn the name and function of each part of a plant. From the bottom of the roots to the seeds of the flower, take students on a visual exploration of plants with this video.

[Plant Structure Adaptations](#)

In this video from Amoeba Sisters, students learn about plant structure and adaptations. They also learn about the structures that plants develop to survive in different types of locations, from deserts to tropical rainforests.

Spanish [Structure of a Lily Pad](#)

Luna, Jupiter, and Clyde imagine that they are frogs to learn more about why lily pads are so strong.

Discovery [Photosynthesis](#)

Describes the process of photosynthesis. Plants take in carbon dioxide and water and use sunlight to produce sugar and oxygen.

Newsela ["Plant Anatomy"](#)

[Editable Quiz](#) (can use as a quick check)

Lesson 2: External Structures and Functions of Plants

Elevate Student book p.292-298 [Video: External Structures and Functions of Plants](#)
uInvestigate Lab p. 293

Nearpod Activity ["Adaptations in Plants"](#) Portrays the differences among three types of animal skeletons: hydrostatic skeletons, endoskeletons, and exoskeletons.

Discovery English: [Adaptation](#) Introduces the topic of adaptations by providing examples including fish that blend well with the bottoms of streams, birds with long beaks to help capture food, and colorful flowers that attract pollinators.

Spanish: [Adaptations](#)

Spanish [Plant parts and functions](#)

Newsela ["The Parts of a Flowering Plant"](#)

[Editable Quiz](#) (can use as a quick check)

Lesson 3: Internal Structures and Functions of Animals

Elevate Student Book p.300-306 [Video: Internal Structures and Functions of Animals](#)
uInvestigate Lab p.301 How can you compare the stomachs of cows and dogs?
[Cow and Dog stomach sheet](#)

Elevate Interactivity [Eating Food and Making Food](#)

Discovery Ed [Animal Skeletons](#)

Portrays the differences among three types of animal skeletons: hydrostatic skeletons, endoskeletons, and exoskeletons.

Newsela ["Fireflies glow to show bats they do not make a tasty meal"](#)

[Editable Quiz](#) (can use as a quick check)

Elevate Enrichment Activity: [Internal Structures and Functions of Animals](#)

Summarize a passage about how frogs breathe.

Lesson 4: External Structures and Functions of Animals

Elevate Student Book p. 308-313 [Video: External Structures and Functions of Animals](#)

Nearpod Activity [Adaptations in Animals](#)

In this video from Peekaboo Kidz students learn about three main kinds of adaptations and how they allow living things to survive. They also learn about how adaptations are the result of the environment, giving it the advantages it needs to survive.

[The Eastern Box Turtle](#)

In this video from the Smithsonian Institution, students learn about the eastern box turtle and how its physical characteristics help it thrive in its environment.

Discovery: [The External Surface That Defines The Body](#)

An animal's body covering must allow for growth, heating and cooling, keeping water in, and keeping the elements out. Fur, skin, and scales are all made of keratin in forms that function best for an animal's way of life.

[Spanish Adaptations](#)

Newsela ["Bird Beak Diversity"](#)

Infographic

[Experiment: A New Beak Evolution Lab](#)

[Editable Quiz](#) (can use as a quick check)

Elevate Enrichment Activity: [External Structures and Functions of Animals](#)

In this activity, students will compare and contrast different animals' limbs or extremities—the body parts that they use to move around.

Lesson 5: Plant and Animal Responses to the Environment

Elevate Student Book p.316-322 [Video: Plant and Animal Responses to the Environment](#)

Nearpod Activity: [Amazon Monkey Calls: Research Skill Builder](#)

In this Nearpod mini lesson, students will strengthen their research skills while exploring how animals in the rainforest communicate with each other. After watching a BBC video, students will formulate effective questions and conduct research.

[African Forest Elephants: Comprehension Check](#)

In this Nearpod mini lesson, students will practice comprehension skills while learning about the habitat and behaviors of African forest elephants. Students will watch a BBC video and answer comprehension questions about the main idea and key details.

Discovery Ed

[Changes in Communities:](#) Communities of organisms are always changing in response to what is happening around them. An example of succession is what happens after a volcanic eruption. In the barren environment left behind after a volcanic eruption, some pioneer plants begin growing. Eventually plants native to the region grow, and animals come to the region looking for food. An example of succession involving a body of water is the formation of a lake after a glacier has receded. The lake can eventually support plant and animal life and may ultimately become a swamp with entirely new communities of organisms.

Newsela Article *English* [Some meat-eating plants thrive by digesting a lizard, even a bird](#)

Spanish [Las plantas carnívoras tienen algunas formas astutas de conseguir su alimento](#)

[Animal endangerment and its causes](#)

[Editable Quiz](#) (can use as a quick check)

Circle of Life **New York State Required Investigation**

ELS Investigations Circle of Life

Nearpod Activity:

[Life Cycle Investigations Nearpod](#)

[Life Cycle Investigations Spanish Nearpod](#)

[Life Cycles Time to Climb Nearpod](#)

Discovery Ed:

[Cycles in Living Things Discovery Ed](#)

[Life Cycles Spanish Version](#)

[What is a Life Cycle Spanish Version Discovery Ed](#)

Elevate 4th Grade Science

LIFE SCIENCE Topic 8-*Human Body Systems*

Performance Expectations:

4-LS1-1 Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and reproduction.

4-LS1-2 Use a model to describe that animals receive different types of information through their senses, process the information in their brain, and respond to the information in different ways

Essential Question: How can you model the interactions between human body systems?

Literacy Skill: Main Idea and Details

Vocabulary

Lesson 1 organ system, organ, tissue, lungs, diaphragm, heart **Lesson 2** skeletal system, muscle, skin **Lesson 3** sensory organ, brain **Lesson 4** small intestine, large intestine, pancreas, liver, stomach, excretory system, kidneys, bladder

Science and Engineering Practices (SEP)
SEP.2 Developing and using models
SEP.7 Engaging in argument from evidence

Disciplinary Core Ideas (DCI) LS1.A Structure and function LS1.D Information Processing

Cross Cutting Concepts (CCC)
CCC.4 System and system models

Overview: Students will relate structure to function in the different human body systems.

Topic Launch: uConnect Lab, pg.338

Literacy Connection [Quest Kickoff: Make a Human Body Road Map](#) pg. 336

U Investigate lab [Which Body Parts Work Together to do a Task](#)

Lesson 1 Circulatory and Respiratory Systems: [Circulatory and Respiratory Video](#)

Elevate Student Book p.335-349 [Student Ebook](#)

U Investigate lab p.341 [U Investigate Lab: How can you model how you breathe?](#)

Nearpod

[Circulatory System Nearpod Video](#)

[Respiratory System Nearpod Video](#)

Discovery Ed

[Circulatory System- Discovery Ed](#)

[Respiratory System Discovery Ed](#)

Newsela

[Circulatory and Respiratory System](#)

Science A-Z

[Circulatory System Science A-Z](#)

[Respiratory System Science A-Z](#)

Lesson 2 Skeleton, Muscles and Skin: [Skeleton, Muscle, Skin Video](#)

Elevate Student Book p. 350 [Ebook](#)

U Investigate lab p. 351 [U Investigate Lab How Can You Test the Strength of a Bone](#)

Nearpod

[Bones Video Nearpod](#)

[Muscles Video Nearpod](#)

[Skin Video Nearpod](#)

Discovery Ed

[Skeletal System Discovery Ed](#)

[Muscular System Discovery Ed](#)

[Skin Discovery Ed](#)

Newsela

[Skeleton, Muscle, Skin NewsELA](#)

Science A-Z

[Skeletal System Science A-Z](#)

[Muscles Science A-Z](#)

[Skin Science A-Z](#)

Lesson 3 Nervous System: [Nervous System Video](#)

Elevate Student Book p. 358 [Nervous System Etext](#)

U Investigate lab p. 359 [U Investigate Which Parts of the Body are More Sensitive?](#)

Nearpod

[Nervous System Nearpod](#)

Discovery Ed

[Nervous System Discovery Ed](#)

Newsela

[Nervous System NewsELA](#)

Science A-Z

[Nervous System Science A-Z](#)

Lesson 4 Digestive, Reproductive and Other Systems: [Digestive, Reproductive and other Systems Video](#)

Elevate Student Book p. 366 [Student Etext](#)

U Investigate lab p. 367 [U Investigate Lab How intestines are arranged in the body?](#)

Nearpod

[Digestive System Nearpod](#)

Discovery Ed

[Digestive System Discovery Ed](#)

Newsela

[Digestive System NewsELA](#)

Science A-Z

[Digestive System Science A-Z](#)

[Topic Close: Make a Human Body Road Map](#)

[Human Body Time to Climb](#)