

Decision 1: Curriculum Map
Topic: Life Science- Animals

Course: Science

Subject(s): Science
Grade(s): 2

Days: (40 days)

Key Learning(s):
 Each animal goes through a life cycle, which varies based on its energy and habitat.

Unit Essential Question(s):
 How are animals alike and different?

Optional Instructional Tools:
 Science Kit (Chapters 1-4)
 United Streaming & Brainpop
 Children's Literature
 Reading Street

<p>Concept: Characteristics (15 days)</p> <p>3.1.4.A.1 Classify according to physical characteristics 3.1.4.C.1 Characteristics of animals that help survival/reproduction Environmental changes and extinction 3.2.4.A.1 Identify/classify objects based on physical properties 4.1.4.A Identify similarities and differences between living organisms ranging from single cell to multi-cellular through microscopes/video/media</p>	<p>Concept: Life Cycle (5 days)</p> <p>3.1.4.A.3 Identify difference in life cycles 3.1.4.A.8 Construct and interpret models and diagrams of various life cycles</p>	<p>Concept: Energy (5 days)</p> <p>3.2.4.B.6 Examples of energies transformed one to another 3.2.4.B.2 Identify types of energy and ability to be stored 4.1.4.C Explain how most life on earth gets energy from sun 4.1.4.C Life gets energy from sun 4.5.4.A Pests in the food chain</p>
<p>Lesson Essential Questions:</p> <p>How do I classify animals (physical properties)? How do animal characteristics help them survive and reproduce? What causes animals to become extinct?</p>	<p>Lesson Essential Questions:</p> <p>What is a life cycle? How do models help you learn about animals? How do characteristics of animals allow them to adapt and change?</p>	<p>Lesson Essential Questions:</p> <p>How does the sun provide energy? How does the sun affect life? How do animals get and use energy? How is energy absorbed, stored, and used in animals?</p>
<p>Vocabulary:</p> <p>adaptations, characteristics, (fur, scales, 4 legs, extinction, multi-cellular) organism, camouflage, regeneration</p>	<p>Vocabulary:</p> <p>life cycle, egg, larva, pupil, caterpillar life cycle, frog life cycle, diagram, model, adaptations, changes</p>	<p>Vocabulary:</p> <p>energy, sun, plants, animals, absorb, store</p>

<p>Concept: Resources (10 days)</p> <p>3.1.4.A.2 Describe resources that animals need to live 4.1.4.A Explain what happens when food, habitat, shelter is changed 3.1.4.A.5 Describe common functions living things share to help function in specific living environment 4.1.4.A Explain how living things are dependent on living and non-living things for survival</p>	<p>Concept:</p>	<p>Concept:</p>
<p>Lesson Essential Questions:</p> <p>How do animals protect themselves?</p>	<p>Lesson Essential Questions:</p>	<p>Lesson Essential Questions:</p>

<p>What happens when an animal's food, shelter, or habitat is changed? How do living things depend on living and non-living things for survival?</p>		
<p>Vocabulary: survival, environment, non-living, living, habitat, food, water, shelter, change, resources, predator, prey, carnivore, herbivore, omnivore, invertebrates, vertebrates, marsupials</p>	<p>Vocabulary:</p>	<p>Vocabulary:</p>

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Additional Info:

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 Each animal goes through a life cycle, which varies based on its energy and habitat.

Unit Essential Question(s):
 How are animals alike and different?

Optional Instructional Tools:
 Science Kit (Chapters 1-4)
 United Streaming & Brainpop
 Children's Literature
 Reading Street

Concept: Characteristics (15 days) 3.1.4.A.1, 3.1.4.C.1, 3.2.4.A.1, 4.1.4.A	Concept: Life Cycle (5 days) 3.1.4.A.3, 3.1.4.A.8	Concept: Energy (5 days) 3.2.4.B.6, 3.2.4.B.2, 4.1.4.C, 4.1.4.C, 4.5.4.A
Lesson Essential Questions: How do I classify animals (physical properties)? How do animal characteristics help them survive and reproduce? What causes animals to become extinct?	Lesson Essential Questions: What is a life cycle? How do models help you learn about animals? How do characteristics of animals allow them to adapt and change?	Lesson Essential Questions: How does the sun provide energy? How does the sun affect life? How do animals get and use energy? How is energy absorbed, stored, and used in animals?
Vocabulary: adaptations, characteristics, (fur, scales, 4 legs, extinction, multi-cellular) organism, camouflage, regeneration	Vocabulary: life cycle, egg, larva, pupil, caterpillar life cycle, frog life cycle, diagram, model, adaptations, changes	Vocabulary: energy, sun, plants, animals, absorb, store

Concept: Resources (10 days) 3.1.4.A.2, 4.1.4.A, 3.1.4.A.5, 4.1.4.A	Concept:	Concept:
Lesson Essential Questions: How do animals protect themselves? What happens when an animal's food, shelter, or habitat is changed? How do living things depend on living and non-living things for survival?	Lesson Essential Questions:	Lesson Essential Questions:
Vocabulary: survival, environment, non-living, living, habitat, food, water, shelter, change, resources, predator, prey, carnivore, herbivore, omnivore, invertebrates, vertebrates, marsupials	Vocabulary:	Vocabulary:

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Decision 1: Curriculum Map
Topic: Earth Science- Environment

Course: Science

Subject(s): Science
Grade(s): 2

Days: (40)

Key Learning(s):
 Life is affected by the environment.

Unit Essential Question(s):
 How does change in the environment affect life?

Optional Instructional Tools:
 Science Kit (Chapters 5-7)
 United Streaming & Brainpop
 Children's Literature
 Fossils
 Thermometer, Rain gauge
 Weather.com
 Saxon Math Lessons

<p>Concept: Ecosystems (10 days)</p> <p>4.1.4.E Ecosystems change over time 4.1.4.B Identify how matter cycles through ecosystem Trace how growth, death, and decay cycle matter through ecosystem 4.1.4.E. Explain how ecosystems change over time from nat/hum influences</p>	<p>Concept: Environment (10 days)</p> <p>4.1.A. Environment of PA 4.2.4.C Fresh water organisms adapted to environment 3.3.4.A.2 Properties and uses of materials (rocks, soil, water, gas) 3.3.4.A.6 Constancy/change identify changes in earth system as air, water, soil, and rock interact</p>	<p>Concept: Fossils (3 days)</p> <p>3.1.4.C.3 Constancy and change; compare fossils to one another</p>
<p>Lesson Essential Questions:</p> <p>What is an ecosystem? What are different types of ecosystems? How do ecosystems change? How does pollution affect ecosystems? How does matter cycle through an ecosystem (food chain)?</p>	<p>Lesson Essential Questions:</p> <p>What does environment mean? What things can you find in our environment? What kinds of things can you find in the PA environment?</p>	<p>Lesson Essential Questions:</p> <p>What is a fossil? How do we identify fossils? How do we use fossils to learn about history?</p>
<p>Vocabulary:</p> <p>Ecosystem, death, change, natural resources, human influences, food chain, organisms, decomposers, population, community, habitat, consumer, producer, ecology, drought, land pollution, air pollution</p>	<p>Vocabulary:</p> <p>Environment, Oak tree, Maple tree, trees, flowers, bushes, wolves, bears, deer, fish, trout, bass, catfish, minnows, cold blooded, warm blooded</p>	<p>Vocabulary:</p> <p>Fossil, classify, casts, fossilization, invertebrates, matrix, geologic maps, mineralization, Paleontology, sedimentary rock, species, extinct, measure, observe, meteor, remains</p>

<p>Concept: Weather (3 days)</p> <p>3.3.4.A.5 Basics weather elements/patterns Measurement of basic weather</p>	<p>Concept: Environment (natural resources/effects) (14 days)</p> <p>3.2.4.A Natural resources (air, water, nutrients) and how animals/people use the natural resources 4.2.4.B.Products from natural resources, Man-made products 4.5.4.E Pollution 4.3.4.B Effects of Pollution 4.2.4.A Needs of people 4.3.4.A. Plants, animals and humans are dependent on air and water; pollution and pest controls affecting health and preventative actions 4.5.4.C Pest Management 4.5.4.A Types of Pest</p>	<p>Concept:</p>
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<p>Lesson Essential Questions:</p> <p>How do you describe and measure weather elements/patterns?</p>	<p>Lesson Essential Questions:</p> <p>How do people and animals utilize natural resources? Why? How do humans use natural resources? How do we use natural resources to make products? How does pollution and pest controls affect humans? How do humans classify and control pests?</p>	<p>Lesson Essential Questions:</p>
<p>Vocabulary:</p> <p>Weather, elements, thermometer, rain gauge, breeze, Celsius, degrees, Fahrenheit, drought, forecast, frostbite, frost, hail, lightening, thunder, humidity, hurricane, meteorologist, overcast, precipitation, puddle raindrop, rainbow, season, shower, slushy, smog, sunny, temperature, thermometer, tornado, windy, wind chill,</p>	<p>Vocabulary:</p> <p>Air, oxygen, water, nutrients, natural, manmade products, pollution, pests, bi-products, metal, aluminum, paper, fabric, cardboard, pesticide sprays, fossil fuel, trash, renewable and non-renewable, waste, waste management, recycling, reusable products, landfills, danger</p>	<p>Vocabulary:</p>

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Concept: Ecosystems (10 days) 4.1.4.E, 4.1.4.B, 4.1.4.E.	Concept: Environment (10 days) 4.1.A, 4.2.4.C, 3.3.4.A.2, 3.3.4.A.6	Concept: Fossils (3 days) 3.1.4.C.3
Lesson Essential Questions: What is an ecosystem? What are different types of ecosystems? How do ecosystems change? How does pollution affect ecosystems? How does matter cycle through an ecosystem (food chain)?	Lesson Essential Questions: What does environment mean? What things can you find in our environment? What kinds of things can you find in the PA. environment?	Lesson Essential Questions: What is a fossil? How do we identify fossils? How do we use fossils to learn about history?
Vocabulary: Ecosystem, death, change, natural resources, human influences, food chain, organisms, decomposers, population, community, habitat, consumer, producer, ecology, drought, land pollution, air pollution	Vocabulary: Environment, Oak tree, Maple tree, trees, flowers, bushes, wolves, bears, deer, fish, trout, bass, catfish, minnows, cold blooded, warm blooded	Vocabulary: Fossil, classify, casts, fossilization, invertebrates, matrix, geologic maps, mineralization, Paleontology, sedimentary rock, species, extinct, measure, observe, meteor, remains

Concept: Weather (3 days) 3.3.4.A.5	Concept: Environment (natural resources/effects) (14 days) 3.2.4.A, 4.2.4.B, 4.5.4.E, 4.3.4.B, 4.2.4.A, 4.3.4.A, 4.5.4.C, 4.5.4.A	Concept:
Lesson Essential Questions: How do you describe and measure weather elements/patterns?	Lesson Essential Questions: How do people and animals utilize natural resources? Why? How do humans use natural resources? How do we use natural resources to make products? How does pollution and pest controls affect humans? How do humans classify and control pests?	Lesson Essential Questions:
Vocabulary: Weather, elements, thermometer, rain gauge, breeze, Celsius, degrees, Fahrenheit, drought, forecast, frostbite, frost, hail, lightening, thunder, humidity, hurricane, meteorologist, overcast, precipitation, puddle, raindrop, rainbow, season, shower, slushy, smog, sunny,	Vocabulary: Air, oxygen, water, nutrients, natural, manmade products, pollution, pests, bi-products, metal, aluminum, paper, fabric, cardboard, pesticide sprays, fossil fuel, trash, renewable and non-renewable, waste, waste management, recycling, reusable products, landfills, danger	Vocabulary:

temperature, thermometer, tornado, windy, wind chill,		
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 United Streaming & Brainpop
 Children's Literature
 Fossils
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 Weather.com
 Saxon Math Lessons

Concept: Ecosystems (10 days) 4.1.4.E, 4.1.4.B, 4.1.4.E.	Concept: Environment (10 days) 4.1.A, 4.2.4.C, 3.3.4.A.2, 3.3.4.A.6	Concept: Fossils (3 days) 3.1.4.C.3
Lesson Essential Questions: What is an ecosystem? What are different types of ecosystems? How do ecosystems change? How does pollution affect ecosystems? How does matter cycle through an ecosystem (food chain)?	Lesson Essential Questions: What does environment mean? What things can you find in our environment? What kinds of things can you find in the PA environment?	Lesson Essential Questions: What is a fossil? How do we identify fossils? How do we use fossils to learn about history?
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Concept: Weather (3 days) 3.3.4.A.5	Concept: Environment (natural resources/effects) (14 days) 3.2.4.A, 4.2.4.B, 4.5.4.E, 4.3.4.B, 4.2.4.A, 4.3.4.A, 4.5.4.C, 4.5.4.A	Concept:
Lesson Essential Questions: How do you describe and measure weather elements/patterns?	Lesson Essential Questions: How do people and animals utilize natural resources? Why? How do humans use natural resources? How do we use natural resources to make products? How does pollution and pest controls affect humans? How do humans classify and control pests?	Lesson Essential Questions:
Vocabulary: Weather, elements, thermometer, rain gauge, breeze, Celsius, degrees, Fahrenheit, drought, forecast, frostbite, frost, hail, lightning, thunder, humidity, hurricane, meteorologist, overcast, precipitation, puddle, raindrop, rainbow, season, shower, slushy, smog, sunny.	Vocabulary: Air, oxygen, water, nutrients, natural, manmade products, pollution, pests, bi-products, metal, aluminum, paper, fabric, cardboard, pesticide sprays, fossil fuel, trash, renewable and non-renewable, waste, waste management, recycling, reusable products, landfills, danger	Vocabulary:

temperature, thermometer, tornado, windy, wind chill,		
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Decision 1: Curriculum Map

Course: Science

Topic: Physical Science

Subject(s): Science
Grade(s): 2

Days: (10)

Key Learning(s):
Light and magnetism are types of energy.
Solids, liquids, and gases are physical properties of matter.

Unit Essential Question(s):
What are the characteristics of energy?
How do I compare and contrast states of matter?

Optional Instructional Tools:

Science Kit (Chapters 8-9)
United Streaming
Brainpop
Children's Literature
Magnets, Flashlights

<p>Concept: Magnets (3 days)</p> <p>3.2.4.B.4</p>	<p>Concept: Light (3 days)</p> <p>3.2.4.B.5</p>	<p>Concept: Matter (4 days)</p> <p>3.2.4.A.1</p>
<p>Lesson Essential Questions:</p> <p>What makes objects move? What are magnets? What can magnets do? What can a magnet attract?</p>	<p>Lesson Essential Questions:</p> <p>What is light? What are sources of light? How does light move? How does light create shadows?</p>	<p>Lesson Essential Questions:</p> <p>How do I classify objects by their observable physical properties?</p>
<p>Vocabulary:</p> <p>magnet, attract, repel, poles, north pole, south pole, magnetic fields, electro magnets, magnetic force, iron, compass</p>	<p>Vocabulary:</p> <p>light, reflection, refraction, absorption, shadow, transparent</p>	<p>Vocabulary:</p> <p>compare, contrast, solids, liquids, gases, mass, shape, size, volume, color, texture, magnetism</p>

<p>Concept:</p>	<p>Concept:</p>	<p>Concept:</p>
<p>Lesson Essential Questions:</p>	<p>Lesson Essential Questions:</p>	<p>Lesson Essential Questions:</p>
<p>Vocabulary:</p>	<p>Vocabulary:</p>	<p>Vocabulary:</p>

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Decision 1: Curriculum Map

Course: Science

Topic: Physical Science

Subject(s): Science

Grade(s): 2

Days: (10)

Key Learning(s):
 Light and magnetism are types of energy.
 Solids, liquids, and gases are physical properties of matter.

Unit Essential Question(s):
 What are the characteristics of energy?
 How do I compare and contrast states of matter?

Optional Instructional Tools:
 Science Kit (Chapters 8-9)
 United Streaming
 Brainpop
 Children's Literature
 Magnets, Flashlights

<p>Concept: Magnets (3 days) 3.2.4.B.4 Magnets have poles that repel and attract</p>	<p>Concept: Light (3 days) 3.2.4.B.5 Light refraction, absorption, and reflection</p>	<p>Concept: Matter (4 days) 3.2.4.A.1 States of Matter (Solids, Liquids, Gases)</p>
<p>Lesson Essential Questions: What makes objects move? What are magnets? What can magnets do? What can a magnet attract?</p>	<p>Lesson Essential Questions: What is light? What are sources of light? How does light move? How does light create shadows?</p>	<p>Lesson Essential Questions: How do I classify objects by their observable physical properties?</p>
<p>Vocabulary: magnet, attract, repel, poles, north pole, south pole, magnetic fields, electro magnets, magnetic force, iron, compass</p>	<p>Vocabulary: light, reflection, refraction, absorption, shadow, transparent</p>	<p>Vocabulary: compare, contrast, solids, liquids, gases, mass, shape, size, volume, color, texture, magnetism</p>

<p>Concept:</p>	<p>Concept:</p>	<p>Concept:</p>
<p>Lesson Essential Questions:</p>	<p>Lesson Essential Questions:</p>	<p>Lesson Essential Questions:</p>
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