**Subject: Science**
**Grade: K**
**Instructional Scope**

| **Standard 5.1 Science Practices:** Students will understand that science is both a body of knowledge and and evidence-based model building enterprise that continually exists, refines, and revises knowledge through the productive practices of generating scientific evidence and reflecting on scientific knowledge. | **Instructional Sequence** | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Trimester 1 | | | Trimester 2 | | | | Trimester 3 | | |
| | Sep. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June |
| Strand A: Understanding Scientific Explanations | | | | | | | | | | |
| Display intellectual curiosity about scientific concepts. | X | | | | | | | | | |
| Ask who, what, when, where, and why questions during sensory exploration and experimentation. | | X | | | | | | | | |
| Participate in scientific investigations. | | X | | | | | | | | |
| Strand B: Generating Scientific Evidence through Active Investigations | | | | | | | | | | |
| Ask questions about natural phenomena which lead to investigation. | X | | | | | | | | | |
| Use measuring tools. | | X | | | | | | | | |
| Observe and record observations. | | X | | | | | | | | |
| Strand C: Reflecting on Scientific Knowledge | | | | | | | | | | |
| Ask new questions as data is collected. | X | | | | | | | | | |
| Predict outcomes. | | X | | | | | | | | |
| Strand D: Participating Productively in Science | | | | | | | | | | |
| Demonstrate how to use tools with respect. | X | | | | | | | | | |
| Present observations through drawing, "writing", and oral discussion. | X | | | | | | | | | |

**Subject: Science**
**Grade : K**
**Instructional Scope**

| **Standard 5-2 Physical Science:** Students will understand physical science principles, including fundamental ideas about matter, energy, and motion, as powerful conceptual tools for making sense of phenomena in physical, living, earth, and space systems. | **Instructional Sequence** | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Trimester 1 | | | Trimester 2 | | | | Trimester 3 | | |
| | Sep. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June |
| Strand A: Properties of Matter | | | | | | | | | | |
| Observe, manipulate, sort and describe objects and materials based on observable attributes of size, shape , color, texture and weight. Sort and describe living, once living and non-living things. | | X | | | | | | | | |
| Strand B: Changes in Matter | | | | | | | | | | |
| No new objectives introduced. | | | | | | | | | | |
| Strand C:  Forms of Energy | | | | | | | | | | |
| No new objectives introduced. | | | | | | | | | | |
| Strand D: Energy Transfer and Conservation | | | | | | | | | | |
| No new objectives introduced. | | | | | | | | | | |
| Strand E: Motion and Forces | | | | | | | | | | |
| Investigate and model the various ways that inanimate objects can move. | | | | | X | | | | | |

**Subject: Science**
**Grade: K**
**Instructional Scope**

| **Standard 5.3 Life Science:** Students will understand life science principles as powerful conceptual tools for making sense of the complexity, diversity, and interconnectedness of life on Earth. Order in natural systems arises in accord with rules that govern the physical world, and can be modeled and predicted through the use of mathematics. | **Instructional Sequence** | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Trimester 1 | | | Trimester 2 | | | | Trimester 3 | | |
| | Sep. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June |
| Strand A: Organization and Development | | | | | | | | | | |
| Identify living, once living and non-living. | | | | | | | X | | | |
| Group animals according to observable characteristics. | | | | | | | | X | | |
| Identify the basic needs of animals. | | | | | | | | X | | |
| Strand B: Matter and Energy Transformations | | | | | | | | | | |
| Match animals with their appropriate habitats. | | | | | | | | X | | |
| Compare how different animals obtain food and water. | | | | | | | | X | | |
| Describe the requirements for the care of animals related to meeting their energy needs. | | | | | | | | X | | |
| Strand C: Interdependence | | | | | | | | | | |
| Identify the characteristics of a habitat that enables the habitat to support the growth of many different kinds of animals and plants. | | | | | | | | X | | |
| Describe ways in which animals interact with their habitats in order to meet their basic needs. | | | | | | | | X | | |
| Communicate ways that humans can protect animal habitats and the animals that live in them. | | | | | | | | X | | |
| Strand D: Heredity and Reproduction | | | | | | | | | | |
| Record or orally describe the observable characteristics of animals to determine the similarities and differences between parents and their offspring. | | | | | | | | X | | |
| Determine and orally describe the characteristic changes that occur during the life cycle of animals. | | | | | | | | X | | |
| Strand E: Evolution and Diversity | | | | | | | | | | |
| Describe how similar structures found in different animals have similar functions and enable them to survive in different environments. | | | | | | | | X | | |
| Describe similarities and differences in observable traits between parents and offspring. | | | | | | | | X | | |

**Subject: Science**
**Grade: K**
**Instructional Scope**

| **Standard 5.4 Earth Systems Science:** Students will understand that the earth operates as a set of complex and dynamic interconnected systems, and is part of the all encompassing system of the universe. | **Instructional Sequence** | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Trimester 1 | | | Trimester 2 | | | | Trimester 3 | | |
| | Sep. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June |
| Strand A: Objects in the Universe | | | | | | | | | | |
| No new objectives introduced. | | | | | | | | | | |
| Strand B: History of the Earth | | | | | | | | | | |
| No new objectives introduced. | | | | | | | | | | |
| Strand C: Properties of Earth Materials | | | | | | | | | | |
| No new objectives introduced. | | | | | | | | | | |
| Strand D: Tectonics | | | | | | | | | | |
| No new objectives introduced. | | | | | | | | | | |
| Strand E: Energy in Earth Systems | | | | | | | | | | |
| No new objectives introduced. | | | | | | | | | | |
| Strand F: Climate and Weather | | | | | | | | | | |
| Observe and document daily weather conditions and discuss how the weather influences daily activities. | X | | | | | | | | | |
| Observe and describe cloud formations. | | | | | | | X | | | |
| Strand G: Biogeochemical Cycles | | | | | | | | | | |
| Demonstrate emergent awareness for conservation, recycling and respect for the environment. | | | | | | | | | | |

**Subject: Science**
**Grade: 1**
**Instructional Scope**

| **Standard 5.1 Science Practices:** Students will understand that science is both a body of knowledge and evidence-based model building enterprise that continually exists, refines, and revises knowledge through the productive practices of generating scientific evidence and reflecting on scientific knowledge. | **Instructional Sequence** | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Trimester 1 | | | Trimester 2 | | | | Trimester 3 | | |
| | Sep. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June |
| Strand A: Understanding Scientific Explanations | | | | | | | | | | |
| Develop and use conceptual frameworks the advance cause and effect relationships. | X | | | | | | | | | |
| Strand B: Generating Scientific Evidence through Active Investigations | | | | | | | | | | |
| Use measurement tools and observations to collect data. | X | | | | | | | | | |
| Formulate explanations from evidence. | X | | | | | | | | | |
| Strand C: Reflecting on Scientific Knowledge | | | | | | | | | | |
| Ask new questions as evidence emerges from measurement tools. | X | | | | | | | | | |
| Strand D: Participating Productively in Science | | | | | | | | | | |
| Engage in productive scientific discussion practices during conversations with peers in the context of scientific investigations and model building. | X | | | | | | | | | |

**Subject: Science**
**Grade : 1**
**Instructional Scope**

| **Standard 5-2 Physical Science:** Students will understand physical science principles, including fundamental ideas about matter, energy, and motion, as powerful conceptual tools for making sense of phenomena in physical, living, earth, and space systems. | **Instructional Sequence** | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Trimester 1 | | | Trimester 2 | | | | Trimester 3 | | |
| | Sep. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June |
| Strand A: Properties of Matter | | | | | | | | | | |
| Sort and describe living and nonliving things based on their physical properties and the materials they are made of. | X | | | | | | | | | |
| Strand B: Changes in Matter | | | | | | | | | | |
| Strand C: Forms of Energy | | | | | | | | | | |
| No new objectives introduced. | | | | | | | | | | |
| Strand D: Energy Transfer and Conservation | | | | | | | | | | |
| No new objectives introduced. | | | | | | | | | | |
| Strand E: Motion and Forces | | | | | | | | | | |
| Identify the force that starts something moving or changes its speed or direction of motion. | | | X | | | | | | | |
| Predict an object's relative speed, path, or how far it will travel using various forces and surfaces. | | | X | | | | | | | |
| Investigate the various ways in which inanimate objects can move (fast and slow, in a straight line, in a circular path , zigzag, and back and forth). | | | X | | | | | | | |
| Distinguish a force that acts by touching it with an object (e.g., by pushing or pulling) from a force that can act without touching (e.g., the attraction between a magnet and a steel paper clip). | | | X | | | | | | | |
| Investigate, construct, generalize rules for the effect that force of gravity has on different size objects. | | | X | | | | | | | |
| Demonstrate that motion is a change in position over a period of time. | | | X | | | | | | | |

**Subject: Science**
**Grade: 1**
**Instructional Scope**

| **Standard 5.3 Life Science:** Students will understand life science principles as powerful conceptual tools for making sense of the complexity, diversity, and interconnectedness of life on Earth. Order in natural systems arises in accord with rules that govern the physical world, and can be modeled and predicted through the use of mathematics. | **Instructional Sequence** | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Trimester 1 | | | Trimester 2 | | | | Trimester 3 | | |
| | Sep. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June |
| Strand A: Organization and Development | | | | | | | | | | |
| Develop and use evidence-based criteria to determine if an unfamiliar object is living or nonliving. | X | | | | | | | | | |
| Strand B: Matter and Energy Transformations | | | | | | | | | | |
| Describe the requirements for the care of plants related to meeting their energy needs. | | X | | | | | | | | |
| Explain that most plants get water from soil through their roots; they gather light through their leaves. | | X | | | | | | | | |
| Strand C: Interdependence | | | | | | | | | | |
| Identify the characteristics of a habitat that enables the habitat to support the growth of many different plants and animals. | | | | | | | | X | | |
| Describe the ways in which plants, animals and people interact with each other and their habitat in order to meet their basic needs. | | | | | | | | X | | |
| Communicate ways that humans protect habitats and/or improve conditions for the growth of plants and animals that live there or ways that might harm them. | | | | | | | | X | | |
| Strand D: Heredity and Reproduction | | | | | | | | | | |
| Determine the characteristic changes that occur during the life cycle of plants by observing their different stages of development. | | X | | | | | | | | |
| Record the observable characteristics of plants to determine the similarities and differences between parents and their offspring. | | X | | | | | | | | |
| Strand E: Evolution and Diversity | | | | | | | | | | |
| Describe how similar structures found in different organisms (e.g., eyes, ears, mouths, leaves, flowers,) have similar functions and enable organisms to survive in different environments. | X | | | | | | | | | |

**Subject: Science**
**Grade: 1**
**Instructional Scope**

| **Standard 5.4 Earth Systems Science:** Students will understand that the earth operates as a set of complex and dynamic interconnected systems, and is part of the all encompassing system of the universe. | **Instructional Sequence** | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Trimester 1 | | | Trimester 2 | | | | Trimester 3 | | |
| | Sep. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June |
| Strand A: Objects in the Universe | | | | | | | | | | |
| Determine a set of general rules describing when the Sun and Moon are visible based on actual observations. | | | | | X | | | | | |
| Strand B: History of the Earth | | | | | | | | | | |
| No new objectives introduced. | | | | | | | | | | |
| Strand C: Properties of Earth Materials | | | | | | | | | | |
| Describe Earth materials using appropriate terms such as hard, soft, dry, wet, heavy and light. | | | | | X | | | | | |
| Strand D: Tectonics | | | | | | | | | | |
| No new objectives introduced. | | | | | | | | | | |
| Strand E: Energy in Earth Systems | | | | | | | | | | |
| Describe the relationship between the Sun and plant growth. | | | | | | | X | | | |
| Strand F: Climate and Weather | | | | | | | | | | |
| No new objectives introduced. | | | | | | | | | | |
| Strand G: Biogeochemical Cycles | | | | | | | | | | |
| Demonstrate awareness of conservation, recycling and respect for the environment. | | | | | | | | X | | |

**Subject: Science**
**Grade: 2**
**Instructional Scope**

| **Standard 5.1 Science Practices:** Students will understand that science is both a body of knowledge and evidence-based model building enterprise that continually exists, refines, and revises knowledge through the productive practices of generating scientific evidence and reflecting on scientific knowledge. | **Instructional Sequence** | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Trimester 1 | | | Trimester 2 | | | | Trimester 3 | | |
| | Sep. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June |
| Strand A: Understanding Scientific Explanations | | | | | | | | | | |
| Demonstrate understanding of interrelationships among foundational scientific concepts. | X | | | | | | | | | |
| Strand B: Generating Scientific Evidence through Active Investigations | | | | | | | | | | |
| Evaluate observations and measurements for accuracy and use the results to construct and defend arguments or to develop new model. | X | | | | | | | | | |
| Strand C: Reflecting on Scientific Knowledge | | | | | | | | | | |
| Ask new questions as evidence emerges from the use of measurement tools. | X | | | | | | | | | |
| Strand D: Participating Productively in Science | | | | | | | | | | |
| Engage in safe and accurate practices when designing and implementing investigations. | X | | | | | | | | | |

**Subject: Science**
**Grade : 2**
**Instructional Scope**

| **Standard 5-2 Physical Science:** Students will understand physical science principles, including fundamental ideas about matter, energy, and motion, as powerful conceptual tools for making sense of phenomena in physical, living, earth, and space systems. | **Instructional Sequence** | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Trimester 1 | | | Trimester 2 | | | | Trimester 3 | | |
| | Sep. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June |
| Strand A: Properties of Matter | | | | | | | | | | |
| Identify common objects as solids, liquids, or gases. | X | | | | | | | | | |
| Strand B: Changes in Matter | | | | | | | | | | |
| Generate accurate data and organize arguments that not all substances respond the same way when heated or cooled, using common materials, such as shortening or candle wax. | | | X | | | | | | | |
| Strand C: Forms of Energy | | | | | | | | | | |
| Apply a variety of strategies to collect evidence that validates, if there is not light, objects cannot be seen. | X | | | | | | | | | |
| Present evidence that represents the relationship between a light source, solid object and the resulting shadow. | X | | | | | | | | | |
| Compare, citing evidence, the heating of different colored objects placed in full sunlight. | | | X | | | | | | | |
| Strand D: Energy Transfer and Conservation | | | | | | | | | | |
| Predict and confirm the brightness of a light, volume of sound, or amount of heat when given the: number of batteries, or size of batteries | | X | | | | | | | | |
| Strand E: Motion and Forces | | | | | | | | | | |
| No new objectives introduced. | | | | | | | | | | |

**Subject: Science**
**Grade: 2**
**Instructional Scope**

| **Standard 5.3 Life Science:** Students will understand life science principles as powerful conceptual tools for making sense of the complexity, diversity, and interconnectedness of life on Earth. Order in natural systems arises in accord with rules that govern the physical world, and can be modeled and predicted through the use of mathematics. | **Instructional Sequence** | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Trimester 1 | | | Trimester 2 | | | | Trimester 3 | | |
| | Sep. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June |
| Strand A: Organization and Development | | | | | | | | | | |
| No new objectives introduced. | | | | | | | | | | |
| Strand B: Matter and Energy Transformations | | | | | | | | | | |
| No new objectives introduced. | | | | | | | | | | |
| Strand C: Interdependence | | | | | | | | | | |
| Describe the ways in which organisms interact with each other and their habitat in order to meet basic needs. | | | | | | | | X | | |
| Communicate ways that humans can prevent harming our habitat. | | | | | | | | X | | |
| Communicate ways that humans protect and/or improve conditions for the growth of plants and animals. | | | | | | | | | X | |
| Communicate ways that humans protect habitats and/or improve conditions for the growth of plants and animals that live there or ways that might harm them. | | | | | | | | | | X |
| Strand D: Heredity and Reproduction | | | | | | | | | | |
| No new objectives introduced. | | | | | | | | | | |
| Strand E: Evolution and Diversity | | | | | | | | | | |
| No new objectives introduced. | | | | | | | | | | |

**Subject: Science**
**Grade: 2**
**Instructional Scope**

| **Standard 5.4 Earth Systems Science:** Students will understand that the earth operates as a set of complex and dynamic interconnected systems, and is part of the all encompassing system of the universe. | **Instructional Sequence** | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Trimester 1 | | | Trimester 2 | | | | Trimester 3 | | |
| | Sep. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June |
| Strand A: Objects in the Universe | | | | | | | | | | |
| No new objectives introduced. | | | | | | | | | | |
| Strand B: History of the Earth | | | | | | | | | | |
| No new objectives introduced. | | | | | | | | | | |
| Strand C: Properties of Earth Materials | | | | | | | | | | |
| No new objectives introduced. | | | | | | | | | | |
| Strand D: Tectonics | | | | | | | | | | |
| No new objectives introduced. | | | | | | | | | | |
| Strand E: Energy in Earth Systems | | | | | | | | | | |
| No new objectives introduced. | | | | | | | | | | |
| Strand F: Climate and Weather | | | | | | | | | | |
| Observe and document daily weather conditions and discuss how the weather influences your activities for the day. | | | | X | | | | | | |
| Strand G: Biogeochemical Cycles | | | | | | | | | | |
| Observe and discuss evaporation and condensation. | | | | | X | | | | | |
| Identify and use water conservation practices. | | | | | | X | | | | |
| Identify and categorize the basic needs of living organisms as they relate to the environment. | | | | | | | X | | | |
| Identify the natural resources used in the process of making various manufactured products. | | | | | | | X | | | |

**Subject: Science**
**Grade: 3**
**Instructional Scope**

| **Standard 5.1 Science Practices:** Students will understand that science is both a body of knowledge and evidence-based model building enterprise that continually exists, refines, and revises knowledge through the productive practices of generating scientific evidence and reflecting on scientific knowledge. | **Instructional Sequence** | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Trimester 1 | | | Trimester 2 | | | | Trimester 3 | | |
| | Sep. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June |
| Strand A: Understanding Scientific Explanations | | | | | | | | | | |
| Demonstrate understandings of the interrelationships among foundational scientific concepts. | X | | | | | | | | | |
| Develop and use conceptual frameworks that advance cause and effect explanations. | X | | | | | | | | | |
| Use scientific facts, measurements, observations, and patterns in nature to build and critique scientific arguments. | X | | | | | | | | | |
| Strand B: Generating Scientific Evidence through Active Investigations | | | | | | | | | | |
| Ask questions and give priority to evidence when constructing answers. | X | | | | | | | | | |
| Use measurement tools and observations schedules to collect and analyze data; evaluate evidence when building and revising models and explanations of natural phenomena. | X | | | | | | | | | |
| Formulate explanations from evidence. | | | | | | | | | | |
| Strand C: Reflecting on Scientific Knowledge | | | | | | | | | | |
| Ask new questions as evidence emerges from the use of measurement tools. | | | | X | | | | | | |
| Evaluate observations and measurements for accuracy and use the results to construct and defend arguments or to develop a new model. | | | | X | | | | | | |
| Present evidence to interpret and/or predict cause and effect outcomes of investigations. | | | | X | | | | | | |
| Strand D: Participating Productively in Science | | | | | | | | | | |
| Use evidence and consider others' ideas when reviewing, presenting and critiquing scientific explanations. | | | | X | | | | | | |
| Engage in productive scientific discussion practices during conversation with peers in the context of scientific investigations and model building. | | | | X | | | | | | |
| Engage in safe and accurate scientific practices when designing, implementing and reporting investigations. | | | | X | | | | | | |

**Subject: Science**
**Grade : 3**
**Instructional Scope**

| **Standard 5-2 Physical Science:** Students will understand physical science principles, including fundamental ideas about matter, energy, and motion, as powerful conceptual tools for making sense of phenomena in physical, living, earth, and space systems. | **Instructional Sequence** | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Trimester 1 | | | Trimester 2 | | | | Trimester 3 | | |
| | Sep. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June |
| Strand A: Properties of Matter | | | | | | | | | | |
| No new objectives introduced. | | | | | | | | | | |
| Strand B: Changes in Matter | | | | | | | | | | |
| No new objectives introduced. | | | | | | | | | | |
| Strand C: Forms of Energy | | | | | | | | | | |
| No new objectives introduced. | | | | | | | | | | |
| Strand D: Energy Transfer and Conservation | | | | | | | | | | |
| No new objectives introduced. | | | | | | | | | | |
| Strand E: Motion and Forces | | | | | | | | | | |
| Investigate, construct, and generalize rules for the effect that force of gravity has on balls of different sizes and weights. | | | | | | | X | | | |
| Identify the force that starts something moving or changes its speed or direction of motion. | | | | | | | | | X | |

**Subject: Science**
**Grade: 3**
**Instructional Scope**

| **Standard 5.3 Life Science:** Students will understand life science principles as powerful conceptual tools for making sense of the complexity, diversity, and interconnectedness of life on Earth. Order in natural systems arises in accord with rules that govern the physical world, and can be modeled and predicted through the use of mathematics. | **Instructional Sequence** | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Trimester 1 | | | Trimester 2 | | | | Trimester 3 | | |
| | Sep. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June |
| Strand A: Organization and Development | | | | | | | | | | |
| No new objectives introduced. | | | | | | | | | | |
| Strand B: Matter and Energy Transformations | | | | | | | | | | |
| No new objectives introduced. | | | | | | | | | | |
| Strand C: Interdependence | | | | | | | | | | |
| No new objectives introduced. | | | | | | | | | | |
| Strand D: Heredity and Reproduction | | | | | | | | | | |
| Compare the physical characteristics of the different stages of the life cycle of an individual organism and characteristics of stages among species. | X | | | | | | | | | |
| Strand E: Evolution and Diversity | | | | | | | | | | |
| No new objectives introduced. | | | | | | | | | | |

**Subject: Science**
**Grade: 3**
**Instructional Scope**

| **Standard 5.4 Earth Systems Science:** Students will understand that the earth operates as a set of complex and dynamic interconnected systems, and is part of the all encompassing system of the universe. | **Instructional Sequence** | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Trimester 1 | | | Trimester 2 | | | | Trimester 3 | | |
| | Sep. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June |
| Strand A: Objects in the Universe | | | | | | | | | | |
| Formulate a general description of the daily motions of the sun across the sky based on shadow observations. Explain how shadows could be used to tell the time of day | | | | | | | X | | | |
| Identify patterns of the Moon's appearance and make predictions about its future appearance based on observational data. | | | | | | | X | | | |
| Generate a model with explanatory value that explains both why objects roll down ramps as well as why the Moon orbits Earth. | | | | | | | X | | | |
| Analyze and evaluate evidence in the form of data tables and photographs to categorize and relate solar system objects (e.g., planets, dwarf planets, moons, asteroids, and comets). | | | | | | | | | | |
| Strand B: History of the Earth | | | | | | | | | | |
| No new objectives introduced. | | | | | | | | | | |
| Strand C: Properties of Earth Materials | | | | | | | | | | |
| No new objectives introduced. | | | | | | | | | | |
| Strand D: Tectonics | | | | | | | | | | |
| No new objectives introduced. | | | | | | | | | | |
| Strand E: Energy in Earth Systems | | | | | | | | | | |
| No new objectives introduced | | | | | | | | | | |
| Strand F: Climate and Weather | | | | | | | | | | |
| No new objectives introduced | | | | | | | | | | |
| Strand G: Biogeochemical Cycles | | | | | | | | | | |
| No new objectives introduced | | | | | | | | | | |

**Subject: Science**
**Grade: 4**
**Instructional Scope**

| **Standard 5.1 Science Practices:** Students will understand that science is both a body of knowledge and evidence-based model building enterprise that continually exists, refines, and revises knowledge through the productive practices of generating scientific evidence and reflecting on scientific knowledge. | **Instructional Sequence** | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Trimester 1 | | | Trimester 2 | | | | Trimester 3 | | |
| | Sep. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June |
| Strand A: Understanding Scientific Explanations | | | | | | | | | | |
| Use scientific facts, measurements, observations, and patterns in nature to build and critique scientific arguments. | X | | | | | | | | | |
| Demonstrate understanding of the interrelationships among foundational scientific concepts. | X | | | | | | | | | |
| Develop and use conceptual frameworks that advance cause and effect explanations. | X | | | | | | | | | |
| Strand B: Generating Scientific Evidence through Active Investigations | | | | | | | | | | |
| Ask questions and give priority to evidence when constructing answers. | | X | | | | | | | | |
| Use measurement tools and observation schedules to collect and analyze data, evaluate evidence when building and revising models and explanations of natural phenomena. | | X | | | | | | | | |
| Formulate explanations from evidence. | | X | | | | | | | | |
| Use scientific models, as well as mathematical tools and technologies to gather and evaluate evidence and measure phenomena. | | X | | | | | | | | |
| Strand C: Reflecting on Scientific Knowledge | | | | | | | | | | |
| Ask new questions as evidence emerges from the use of measurement tools. | | | | | | | | | | |
| Present evidence to interpret and/or predict cause and effect outcomes of investigations. | | X | | | | | | | | |
| Evaluate observations and measurements for accuracy and use the results to construct and defend arguments or to develop a new model. | | | X | | | | | | | |
| Strand D: Participating Productively in Science | | | | | | | | | | |
| Demonstrate how to use scientific tools and instruments and how to handle animals with respect for their safety and welfare. | | X | | | | | | | | |
| Use evidence and consider others' ideas when reviewing, presenting and critiquing scientific explanations. | | | | X | | | | | | |
| Engage in productive scientific discussion practices during conversation with peers in the context of scientific investigations and model building. | | | | X | | | | | | |
| Engage in safe and accurate scientific practices when designing, implementing and reporting investigations. | | | | | | | X | | | |

**Subject: Science**
**Grade : 4**
**Instructional Scope**

| **Standard 5-2 Physical Science:** Students will understand physical science principles, including fundamental ideas about matter, energy, and motion, as powerful conceptual tools for making sense of phenomena in physical, living, earth, and space systems. | **Instructional Sequence** | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Trimester 1 | | | Trimester 2 | | | | Trimester 3 | | |
| | Sep. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June |
| Strand A: Properties of Matter | | | | | | | | | | |
| Determine the weight and volume of common objects using appropriate tools. | | | X | | | | | | | |
| Identify objects that are made of a single substance and those composed of more than one substance using simple tools in the classroom. | | | X | | | | | | | |
| Plan and carry out investigations between solids, liquids and gases with teacher support. | | | X | | | | | | | |
| Strand B: Changes in Matter | | | | | | | | | | |
| Predict and explain what happens when a common substance is heated to melting and then cooled to a solid. | | | X | | | | | | | |
| Strand C: Forms of Energy | | | | | | | | | | |
| Take measurements to compare the flow of heat through metals and non-metals. | | | | | | | | X | | |
| Strand D: Energy Transfer and Conservation | | | | | | | | | | |
| Connect wires to produce a complete circuit involving a battery and at least one other electrical component to produce observable change. | | | | | | | X | | | |
| Use simple circuits involving batteries and motors to compare and predict the current flow with different circuit arrangements. | | | | | | | X | | | |
| Strand E: Motion and Forces | | | | | | | | | | |
| Investigate and categorize materials based on their interactions with magnets. | | | | | | | | | X | |
| Describe the relationships between the force between two magnets as the distance changes. | | | | | | | | | X | |

**Subject: Science**
**Grade: 4**
**Instructional Scope**

| **Standard 5.3 Life Science:** Students will understand life science principles as powerful conceptual tools for making sense of the complexity, diversity, and interconnectedness of life on Earth. Order in natural systems arises in accord with rules that govern the physical world, and can be modeled and predicted through the use of mathematics. | **Instructional Sequence** | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Trimester 1 | | | Trimester 2 | | | | Trimester 3 | | |
| | Sep. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June |
| Strand A: Organization and Development | | | | | | | | | | |
| Develop and use evidence based on criteria to determine if an unfamiliar object is living or non-living. | X | | | | | | | | | |
| Compare and contrast structures that have similar functions in various organisms and explain how those functions may be carried out by structures that have different physical appearances (lungs vs. gills) | | X | | | | | | | | |
| Strand B: Matter and Energy Transformations | | | | | | | | | | |
| Identify sources of energy (food) in a variety at settings. | | X | | | | | | | | |
| Strand C: Interdependence | | | | | | | | | | |
| Predict the biotic and abiotic characteristics of an unfamiliar organism's habitat. | | X | | | | | | | | |
| Explain the consequences of rapid ecosystem change (floods, snowfall, etc.) and compare to gradual ecosystem change. | | X | | | | | | | | |
| Strand D: Heredity and Reproduction | | | | | | | | | | |
| Compare the physical characteristics of different stages of life cycle of an individual organism. | | X | | | | | | | | |
| Strand E: Evolution and Diversity | | | | | | | | | | |
| Evaluate similar populations in a ecosystem with regard to their ability to thrive and grow. | | X | | | | | | | | |
| Model an adaptation to a species that would increase its chances of survival should the environment become colder, wetter, warmer over time. | | X | | | | | | | | |

**Subject: Science**
**Grade: 4**
**Instructional Scope**

| **Standard 5.4 Earth Systems Science:** Students will understand that the earth operates as a set of complex and dynamic interconnected systems, and is part of the all encompassing system of the universe. | **Instructional Sequence** | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Trimester 1 | | | Trimester 2 | | | | Trimester 3 | | |
| | Sep. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June |
| Strand A: Objects in the Universe | | | | | | | | | | |
| No new standards introduced. | | | | | | | | | | |
| Strand B: History of the Earth | | | | | | | | | | |
| Argue whether a given fossil is terrestrial or marine in origin. | | | | X | | | | | | |
| Examine Earth's surface features and identify those created on a scale of human life or on a geological time scale. | | | | | X | | | | | |
| Interpret a representation of a rock layer sequence to establish oldest and youngest layers, geologic events and changing life forms. | | | | | X | | | | | |
| Strand C: Properties of Earth Materials | | | | | | | | | | |
| Categorize unknown samples as either rocks or minerals. Create a model to represent how soil if formed. | | | | X | | | | | | |
| Strand D: Tectonics | | | | | | | | | | |
| Identify rocks and minerals with magnetic properties. | | | | | X | | | | | |
| Strand E: Energy in Earth Systems | | | | | | | | | | |
| No new objectives introduced. | | | | | | | | | | |
| Strand F: Climate and Weather | | | | | | | | | | |
| No new objectives introduced. | | | | | | | | | | |
| Strand G: Biogeochemical Cycles | | | | | | | | | | |
| No new objectives introduced. | | | | | | | | | | |

**Subject: Science**
**Grade: 5**
**Instructional Scope**

| **Standard 5.1 Science Practices:** Students will understand that science is both a body of knowledge and evidence-based model building enterprise that continually exists, refines, and revises knowledge through the productive practices of generating scientific evidence and reflecting on scientific knowledge. | **Instructional Sequence** | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Trimester 1 | | | Trimester 2 | | | | Trimester 3 | | |
| | Sep. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June |
| Strand A: Understanding Scientific Explanations | | | | | | | | | | |
| Demonstrate understanding and use interrelationships among central scientific concepts to revise explanations and to consider alternative explanations | X | | | | | | | | | |
| Develop and use mathematical, physical and computational tools to build conceptual-based models and to pose theories. | X | | | | | | | | | |
| Use scientific principles and theories to build and refine standards for data collection, posing controls, and presenting evidence. | X | | | | | | | | | |
| Strand B: Generating Scientific Evidence through Active Investigations | | | | | | | | | | |
| Use scientific models, as well as mathematical tools and technologies to gather and evaluate evidence and measure phenomena. | X | | | | | | | | | |
| Ask scientifically valid questions and give priority to evidence when responding. | X | | | | | | | | | |
| Design investigations, collect and analyze data, and evaluate evidence to determine central tendencies, casual/correlated relationships, and anomalous data. | X | | | | | | | | | |
| Formulate explanations from evidence. | X | | | | | | | | | |
| Use measurement tools and observations' schedules to collect and analyze data; evaluate evidence when building and revising models and explanations of natural phenomena. | X | | | | | | | | | |
| Ask questions and give priority to evidence when constructing answers. | X | | | | | | | | | |
| Build, refine and represent evidence-based models using mathematical, physical, and computational tools. | X | | | | | | | | | |
| Strand C: Reflecting on Scientific Knowledge | | | | | | | | | | |
| Use mathematical, physical and computations to represent and generate arguments based on evidence. | X | | | | | | | | | |
| Generate data that are presentations and structures and use information for developing patterns; for revising predictions and explanations. | X | | | | | | | | | |
| Consider alternative theories to interpret and evaluate evidence-based arguments | X | | | | | | | | | |
| Refine understandings of interrelationships among central science concepts as new evidence emerges from posing controls for investigations. | X | | | | | | | | | |
| Revise predictions or explanations on the basis of new evidence, learning new facts or development on evidence. | X | | | | | | | | | |

**Subject: Science**
**Grade: 5**
**Instructional Scope**

| **Standard 5.1 Science Practices:** Students will understand that science is both a body of knowledge and evidence-based model building enterprise that continually exists, refines, and revises knowledge through the productive practices of generating scientific evidence and reflecting on scientific knowledge. | **Instructional Sequence** | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Trimester 1 | | | Trimester 2 | | | | Trimester 3 | | |
| | Sep. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June |
| Strand D: Participating Productively in Science | | | | | | | | | | |
| Learn and practice how to appropriately use safety equipment in science investigations. | X | | | | | | | | | |
| Engage in multiple forms of discussion in order to process, make sense of, and learn from others ideas, observations, and experiences. | X | | | | | | | | | |
| Make thinking visible using literal representations such as graphs, tables, journals, concept maps, and diagrams. | X | | | | | | | | | |
| Talk about individual scientific thinking in order to reflect on, participate in, build on scientific knowledge, and to receive feedback. | X | | | | | | | | | |
| Demonstrate how to use scientific tools and instruments and handle animals with respect. | X | | | | | | | | | |

**Subject: Science**
**Grade : 5**
**Instructional Scope**

| **Standard 5-2 Physical Science:** Students will understand physical science principles, including fundamental ideas about matter, energy, and motion, as powerful conceptual tools for making sense of phenomena in physical, living, earth, and space systems. | **Instructional Sequence** | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Trimester 1 | | | Trimester 2 | | | | Trimester 3 | | |
| | Sep. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June |
| Strand A: Properties of Matter | | | | | | | | | | |
| Investigate, observe, assess, and conclude how energy and matter flow through an ecosystem. | | | | X | X | X | X | X | X | X |
| Recognize the boiling point of water and the melting point of ice. | X | X | | | | | | | | |
| Strand B: Changes in Matter | | | | | | | | | | |
| Recognize evidence of a chemical change (e.g. acid rain causes chemical weathering of rock). | | X | | | | | | | | |
| Strand C: Forms of Energy | | | | | | | | | | |
| Draw and label how the sun's energy causes the greenhouse effect. | | | | X | X | | | | | |
| Relate the transfer of heat from oceans/land masses to the evolution of a hurricane. | | | | | | X | X | | | |
| Strand D: Energy Transfer and Conservation | | | | | | | | | | |
| Demonstrate how vibrations in materials can generate waves that transfer energy one place to another (e.g. ocean water moves sand, wind energy moves sand) | | | X | X | X | X | X | | | |
| Recognize that heat energy flows through materials and across spaces from warmer to cooler. | | | | X | X | X | X | | | |
| Strand E: Motion and Forces | | | | | | | | | | |
| Recognize that everything on or near Earth is pulled toward Earth's center. | | X | X | X | X | X | X | | | |
| Model and explain how the description of an object's motion from one observer's view may be different from a different observer's view. | | | | | | | X | | | |
| Demonstrate and explain the frictional force acting on an object. | | | X | | | | | | | |
| Describe how Earth's atmosphere is a mixture of gases that occupies space, has weight, and is affected by changes in temperature. | | | | X | X | X | X | | | |
| Describe and model how seasonal weather changes and climate differences are results of factors such as sunlight energy and Earth's motion. | | | | X | X | X | X | | | |

**Subject: Science**
**Grade: 5**
**Instructional Scope**

| **Standard 5.3 Life Science:** Students will understand life science principles as powerful conceptual tools for making sense of the complexity, diversity, and interconnectedness of life on Earth. Order in natural systems arises in accord with rules that govern the physical world, and can be modeled and predicted through the use of mathematics. | **Instructional Sequence** | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Trimester 1 | | | Trimester 2 | | | | Trimester 3 | | |
| | Sep. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June |
| Strand A: Organization and Development | | | | | | | | | | |
| Learn that all living things are organisms and can be classified into domains and kingdoms, phylums, etc.. | | | | | | | X | X | | |
| Identify, observe, and describe the characteristics of vertebrates and invertebrates. | | | | | | | X | X | | |
| Identify, model, and describe the characteristics of bacteria/prokaryotes. | | | | | | | X | X | | |
| Investigate, identify, and describe the characteristics of eukaryotes such as plant and animal cells. | | | | | | | X | X | | |
| Model and explain ways in which organelles work together to meet the cell's needs. | | | | | | | X | | | |
| Observe, identify, and describe the characteristics of protists, fungi, plants and animals. | | | | | | | X | X | | |
| Strand B: Matter and Energy Transformations | | | | | | | | | | |
| Illustrate the flow of energy (food) through a community. | | | | | | | | | X | X |
| Investigate how energy flows in biomes is dependent on producers, consumers, and decomposers. | | | | | | | | | X | X |
| Predict the impact altering biotic and abiotic factors in an ecosystem. | | | | | | | X | X | X | X |
| Investigate, model, and explain the water cycle. | | | | X | X | X | X | X | | |
| Investigate, model, and explain the carbon dioxide and oxygen cycle. | | | | | | | | X | X | X |
| Identify and describe the nitrogen cycle. | | | | | | | | | X | X |
| Strand C: Interdependence | | | | | | | | | | |
| Investigate how humans are dependent upon producers, consumers, and decomposers. | | | | | | | | X | X | X |
| Identify and explain the consequences of rapid ecosystem changes (e.g. floods, hurricanes, wind, tornados). Research ways to minimize damages and safety procedures. | | | | | X | X | X | | | |
| Research, develop, and create a project on a biome including information on the various systems in the biosphere for that biome using print materials and internet sources. | | | | | | | | | X | X |
| Strand D: Heredity and Reproduction | | | | | | | | | | |
| Predict the long term effect of interference with normal patterns of reproduction. | | | | | | | X | X | | |
| Strand E: Evolution and Diversity | | | | | | | | | | |
| Describe the impact on the survival of a species during specific times in geological history when environmental conditions changed. | | | | | | | | X | X | |

**Subject: Science**
**Grade: 5**
**Instructional Scope**

| **Standard 5.4 Earth Systems Science:** Students will understand that the Earth operates as a set of complex and dynamic interconnected systems, and is part of the all encompassing system of the universe. | **Instructional Sequence** | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Trimester 1 | | | Trimester 2 | | | | Trimester 3 | | |
| | Sep. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June |
| Strand A: Objects in the Universe | | | | | | | | | | |
| Recognize that changes in Earth's position relative to the Sun produces the seasonal changes. | | | | | | X | X | | | |
| Describe how the motions of the Sun, Moon, and Earth help define units of time: days, months, year. | | | | | | X | X | | | |
| Interpret data about the hours of sunlight and the relationship to the seasons. | | | | | | X | X | | | |
| Strand B: History of the Earth | | | | | | | | | | |
| Determine if landforms were created by erosion based on evidence. | | X | X | | | | X | | | |
| Describe and investigate methods people use to reduce soil erosion. | | X | X | | | | | | | |
| Strand C: Properties of Earth Materials | | | | | | | | | | |
| Demonstrate understanding that metal ores, and fossil fuels are nonrenewable resources. Compare and contrast renewable and nonrenewable resources. | | X | X | | | | | | | |
| Explain why soil is a renewable resource and soil is renewed slowly. | | X | X | | | | | | | |
| Investigate the impact of reducing wastes by various methods (e.g. landfills, composting, reduce, reuse, recycle) Determine best practices to help the ecosystem. | | X | X | X | | | | | | |
| Investigate and explain how Earth's resources are changed into goods and materials. | | X | X | X | | | | | | |
| Predict the types of ecosystems that unknown soil samples could support based on soil properties. | | | | | | | | | X | |
| Strand D: Tectonics | | | | | | | | | | |
| Model and do investigations to show how areas are created (deposition and destroyed (erosion) using experiments, maps, and images, video, print materials etc. | | X | X | | | | | | | |
| Apply knowledge of Earth's magnetic fields and complete an orienteering challenge. | | | | | | X | | | | |
| Deduce the story of the tectonic conditions and erosion forces that created sample rocks or rock formations. | | X | X | | | | | | | |
| Strand E: Energy in Earth Systems | | | | | | | | | | |
| Investigate and describe how moving water, wind, and ice change and shape land by erosion and deposition of rocks and sediments. | | X | X | | | | | | | |
| Compare and contrast physical and chemical weathering. | | X | X | | | | | | | |
| Identify and describe the different forms of physical and chemical weathering through investigations and activities. | | X | X | | | | | | | |
| Identify and investigate how people produce large amounts of trash and rate of resource depletion increases so land is used up by trash disposal. | | X | X | | | | | | | |
| Demonstrate understanding that reducing waste saves energy and saves resources in a system which can result in less pollution. | | X | X | | | | | | | |
| Strand F: Climate and Weather | | | | | | | | | | |
| Identify patterns in data collected from basic weather instruments. | | | | X | X | X | X | | | |
| Determine the origin of local weather by exploring national international weather maps. | | | | X | X | X | X | | | |

**Subject: Science**
**Grade: 5**
**Instructional Scope**

| **Standard 5.4 Earth Systems Science:** Students will understand that the Earth operates as a set of complex and dynamic interconnected systems, and is part of the all encompassing system of the universe. | **Instructional Sequence** | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Trimester 1 | | | Trimester 2 | | | | Trimester 3 | | |
| | Sep. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June |
| Explain the interrelationships between daily temperatures, air pressure, and relative humidity data. | | | | X | X | X | X | | | |
| Create climatographs for various locations around the Earth and categorize the climate based on yearly patterns of temperature and precipitation | | | | | | | | | | |
| Explain the mechanism that causes varying daily temperature ranges between a coastal community and a community located in the interior of the country. | | | | X | X | | | | | |
| Strand G.: Biogeochemical Cycles | | | | | | | | | | |
| Trace a path a drop of water might follow through the water cycle. | | | | | X | | | | | |
| Explain how clouds form. | | | | X | | | | | | |
| Observe daily cloud patterns, type of precipitation and temperature, and categorize the clouds by the conditions that form precipitation. | | | | | X | | | | | |
| Model how the properties of water can change as it moves through the water cycle. | | | | | X | | | | | |
| Explain how chemical and physical mechanism changes are responsible for creating a variety of landforms. | | X | | | | | | | | |
| Illustrate global winds and surface currents to explain the relationship between the two factors through the creation of a world map of global winds. | | | | | X | X | X | | | |
| Identify local or global regions whose environment has been positively or negatively impacted by actions of humans. | | X | X | | | | | | | |
| Describe ways that humans can improve the health of ecosystem around the world. | | | X | | | | | | | |

**Subject: Science**
**Grade: 6**
**Instructional Scope**

| **Standard 5.1 Science Practices:** Students will understand that science is both a body of knowledge and evidence-based model building enterprise that continually exists, refines, and revises knowledge through the productive practices of generating scientific evidence and reflecting on scientific knowledge. | **Instructional Sequence** | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Trimester 1 | | | Trimester 2 | | | | Trimester 3 | | |
| | Sep. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June |
| Strand A: Understanding Scientific Explanations | | | | | | | | | | |
| Use scientific principles to build and refine standards for data collection, controls and evidence presentation. | X | | | | | | | | | |
| Use mathematical, physical and computational tools to build conceptual-based models. | | | X | | | | | | | |
| Demonstrate understanding between central scientific concepts and consider alternate explanations. | | | | X | | | | | | |
| Strand B: Generating Scientific Evidence through Active Investigations | | | | | | | | | | |
| Ask valid scientific questions and prioritize evidence in responses. | | X | | | | | | | | |
| Collect, analyze and evaluate data to identify causal relationships. | | X | | | | | | | | |
| Use controls to examine data sets and evidence to formulate explanations. | X | | | | | | | | | |
| Strand C: Reflecting on Scientific Knowledge | | | | | | | | | | |
| Generate data representations and structures for developing patterns. | | | X | | | | | | | |
| Refine understandings of science concepts as new evidence emerges. | | X | | | | | | | | |
| Strand D: Participating Productively in Science | | | | | | | | | | |
| Engage in discussions to process and learn from others' ideas, observations and experiences. | X | | | | | | | | | |
| Make thinking visible using graphs, tables, journals, concept maps and diagrams. | X | | | | | | | | | |
| Demonstrate how to use scientific tools and instruments with respect to safety. | X | | | | | | | | | |

**Subject: Science**
**Grade : 6**
**Instructional Scope**

| **Standard 5-2 Physical Science:** Students will understand physical science principles, including fundamental ideas about matter, energy, and motion, as powerful conceptual tools for making sense of phenomena in physical, living, earth, and space systems. | **Instructional Sequence** | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Trimester 1 | | | Trimester 2 | | | | Trimester 3 | | |
| | Sep. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June |
| Strand A: Properties of Matter | | | | | | | | | | |
| Determine the identity of unknown substances using data from intrinsic properties. | | | X | | | | | | | |
| Calculate density of objects or substances after determining volume and mass. | | | | | X | | | | | |
| Determine the volume of common objects using water displacement. | | | | | X | | | | | |
| Predict how particles of liquids, solids and gases behave under various physical conditions. | | | | X | | | | | | |
| Explain that all matter is made of atoms and give examples of common elements. | | | | | | X | | | | |
| Explain the implications that "all substances are composed of elements". | | | | | | X | | | | |
| Predict the physical and chemical properties of elements based on their position on the periodic table. | | | | | X | | | | | |
| Determine whether a substance is a metal or non-metal through student designed investigation. | | | | | | X | | | | |
| Strand B: Changes in Matter | | | | | | | | | | |
| Compare the properties of reactants with the properties of the products when two or more substances combine by a chemical reaction. | | | | X | | | | | | |
| Strand C: Forms of Energy | | | | | | | | | | |
| Describe how to demonstrate that visible light from the sun is made up of different colors. | | | | | | | | X | | |
| Predict the path of reflected or refracted light. | | | | | | | | X | | |
| Strand D: Energy Transfer and Conservation | | | | | | | | | | |
| Describe the flow of energy from the sun through photosynthesis. | | | | | | | | | X | |
| Strand E: Motion and Forces | | | | | | | | | | |
| Predict if an object will sink or float using evidence or reasoning. | | | | | X | | | | | |

**Subject: Science**
**Grade: 6**
**Instructional Scope**

| **Standard 5.3 Life Science:** Students will understand life science principles as powerful conceptual tools for making sense of the complexity, diversity, and interconnectedness of life on Earth. Order in natural systems arises in accord with rules that govern the physical world, and can be modeled and predicted through the use of mathematics. | **Instructional Sequence** | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Trimester 1 | | | Trimester 2 | | | | Trimester 3 | | |
| | Sep. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June |
| Strand A: Organization and Development | | | | | | | | | | |
| Model and explain how plant cell organelles work together to meet cell needs. | | | | | | | | | X | |
| Strand B: Matter and Energy Transformations | | | | | | | | | | |
| Describe the sources of the reactants of photosynthesis and trace the pathway to the products. | | | | | | | | | X | |
| Strand C: Interdependence | | | | | | | | | | |
| Predict the impact of altering biotic and abiotic factors has on an aquatic ecosystem. | | X | | | | | | | | |
| Strand D: Heredity and Reproduction | | | | | | | | | | |
| Explain how knowledge of inherited variations between generations is applied to farming. | | | | | | | | | | X |
| Strand E: Evolution and Diversity | | | | | | | | | | |
| Describe the impact on the survival of species when environmental conditions change. | | | | | | | | | X | |

**Subject: Science**
**Grade: 6**
**Instructional Scope**

| **Standard 5.4 Earth Systems Science:** Students will understand that the Earth operates as a set of complex and dynamic interconnected systems, and is part of the all encompassing system of the universe. | **Instructional Sequence** | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Trimester 1 | | | Trimester 2 | | | | Trimester 3 | | |
| | Sep. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June |
| Strand A: Objects in the Universe | | | | | | | | | | |
| No new objectives introduced. | | | | | | | | | | |
| Strand B: History of the Earth | | | | | | | | | | |
| No new objectives introduced. | | | | | | | | | | |
| Strand C: Properties of Earth Materials | | | | | | | | | | |
| Determine the chemical properties of soil samples in order to select an appropriate location for a garden. | | | | | | | | | | X |
| Strand D: Tectonics | | | | | | | | | | |
| Explain why the Pacific rim is referred to as the Ring of Fire. | X | | | | | | | | | |
| Strand E: Energy in Earth Systems | | | | | | | | | | |
| Explain how energy from the sun is transferred in ocean circulation and the water cycle. | | X | | | | | | | | |
| Generate a conclusion about energy transfer and circulation by observing convection currents model. | | X | | | | | | | | |
| Strand F: Climate and Weather | | | | | | | | | | |
| No new objectives introduced. | | | | | | | | | | |
| Strand G.: Biogeochemical Cycles | | | | | | | | | | |
| Illustrate global winds and surface currents to explain the relationships between the two factors through the world map. | | X | | | | | | | | |
| Represent and explain how ocean currents impact the climate of coastal communities using sea surface temperature maps. | | X | | | | | | | | |

**Subject: Science**
**Grade: 7**
**Instructional Scope**

| **Standard 5.1 Science Practices:** Students will understand that science is both a body of knowledge and evidence-based model building enterprise that continually exists, refines, and revises knowledge through the productive practices of generating scientific evidence and reflecting on scientific knowledge. | **Instructional Sequence** | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Trimester 1 | | | Trimester 2 | | | | Trimester 3 | | |
| | Sep. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June |
| Strand A: Understanding Scientific Explanations | | | | | | | | | | |
| Develop and use mathematical, physical and computational tools to build conceptual-based models to pose theories. | X | | | | | | | | | |
| Use scientific principles and theories to build and refine standards for data collection, posing controls, and presenting evidence. | X | | | | | | | | | |
| Compare the benefits and limitations of existing as a single or multicellular organism. | | | X | | | | | | | |
| Generate and analyze evidence through simulations that the Sun's apparent motion across the sky changes over the course of a year. | | | | X | | | | | | |
| Predict what would happen to an orbiting object if gravity were increased, decreased, or taken away. | | | | X | | | | | | |
| Analyze moon phase, eclipse and tidal data to construct models that explain how the relative positions and motions of the Sun, Earth, and Moon cause these three phenomena. | | | | X | | | | | | |
| Use evidence of global variations in day length, temperature, and the amount of solar radiation striking Earth's surface, to create models that explain these phenomena and seasons. | | | | X | | | | | | |
| Construct and evaluate models demonstrating the rotation of the Earth on its axis and the orbit of the Earth around the Sun. | | | | | X | | | | | |
| Compare and contrast the major physical characteristics (including size and scale) of solar system objects using evidence in the form of data tables and photographs. | | | | | X | | | | | |
| Analyze data regarding the motion of comets, planets and moons to find general patterns of orbital motion (Kepler's Laws). | | | | | X | | | | | |
| Predict how the gravitational force between two bodies would differ for bodies of different masses or different distances apart. | | | | | | | X | | | |
| Strand B: Generating Scientific Evidence through Active Investigations | | | | | | | | | | |
| Ask scientifically valid questions and give priority to evidence when responding. | X | | | | | | | | | |
| Compare alternative scientific arguments based on the data represented. | X | | | | | | | | | |
| Use quality controls to examine data sets and evidence to generate and review explanations. | | X | | | | | | | | |
| Design investigations, collect and analyze data, and evaluate evidence to determine central tendencies, casual/correlational relationships, and anomalous data. | | | X | | | | | | | |
| Build, refine and represent evidence-based models using mathematical, physical and computational goals. | | | | | | | X | | | |

**Subject: Science**
**Grade: 7**
**Instructional Scope**

| **Standard 5.1 Science Practices:** Students will understand that science is both a body of knowledge and evidence-based model building enterprise that continually exists, refines, and revises knowledge through the productive practices of generating scientific evidence and reflecting on scientific knowledge. | **Instructional Sequence** | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Trimester 1 | | | Trimester 2 | | | | Trimester 3 | | |
| | Sep. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June |
| Strand C: Reflecting on Scientific Knowledge | | | | | | | | | | |
| Generate data representations and structures (e.g., bar graphs including histograms) and use the information for developing patterns; for revising predictions and explanations | | X | | | | | | | | |
| Refine understandings of interrelationships among central science concepts as new evidence emerges from posing controls for investigations. | | | X | | | | | | | |
| Consider alternative theories to interpret and evaluate evidence-based arguments. | | | X | | | | | | | |
| Model the effect of positive and negative changes in population size on a symbiotic pairing. | | | X | | | | | | | |
| Model and explain current technology used to capture solar energy for the purposes of converting it to electrical energy. | | | | X | | | | | | |
| Strand D: Participating Productively in Science | | | | | | | | | | |
| Engage in multiple forms of discussion in order to process, make sense of, and learn from other's ideas, observations, and experiences. | X | | | | | | | | | |
| Talk about individual scientific thinking in order to reflect on, participate in, build on scientific knowledge, and to receive feedback. | X | | | | | | | | | |
| Make thinking visible using literal representations such as graphs, tables, journals, concept maps, and diagrams. | | | | X | | | | | | |
| Describe the flow of energy from the Sun to the fuel tank of an automobile. | | | | | | | X | | | |
| Relate the kinetic and potential energies of a roller coaster at various points on its path. | | | | | | | | X | | |
| Strand E: Energy in Earth Systems | | | | | | | | | | |
| ocean circulation, and the water cycle. | | | | | | X | | | | |
| Model and explain how the description of an object's motion from one observer's view may be different observer's view. | | | | | | | X | | | |
| Calculate the speed of an object when given a distance and time. | | | | | | | | X | | |
| Compare the motion of an object acted on by balanced forces with the motion of an object acted on by unbalanced forces in a given specific scenario. | | | | | | | | X | | |

**Subject: Science**
**Grade : 7**
**Instructional Scope**

| **Standard 5-2 Physical Science:** Students will understand physical science principles including fundamental ideas about matter, energy, and motion, as powerful conceptual tools for making sense of phenomena in physical, living, earth and space systems. | **Instructional Sequence** | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Trimester 1 | | | Trimester 2 | | | | Trimester 3 | | |
| | Sep. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June |
| Strand A: Properties of Matter | | | | | | | | | | |
| No new objectives introduced. | | | | | | | | | | |
| Strand B: Changes in Matter | | | | | | | | | | |
| No new objectives introduced. | | | | | | | | | | |
| Strand C:  Forms of Energy | | | | | | | | | | |
| No new objectives introduced. | | | | | | | | | | |
| Strand D: Energy Transfer and Conservation | | | | | | | | | | |
| Relate the kinetic and potential energies of a roller coaster at various points on its path. | | | | | | | | X | | |
| Describe the flow of energy from the Sun to the fuel tank of an automobile. | | | | | | | X | | | |
| Model and explain how the description of an object's motion from one observer's view may be different from a different observer's view. | | | | | | | X | | | |
| Calculate the speed of an object when given a distance and time. | | | | | | | | X | | |
| Compare the motion of an object acted on by balanced forces with the motion of an object acted on by  unbalanced forces in a given specific scenario. | | | | | | | | X | | |
| Compare the benefits and limitations of existing as a single or multicellular organism. | | | X | | | | | | | |
| Model the effect of positive and negative changes in population size on a symbiotic pairing. | | | X | | | | | | | |
| Strand E: Motion and Forces | | | | | | | | | | |
| No new objectives introduced. | | | | | | | | | | |

**Subject: Science**
**Grade: 7**
**Instructional Scope**

| **Standard 5.3 Life Science:** Students will understand life science principles as powerful conceptual tools for making sense of the complexity, diversity, and interconnectedness of life on Earth. Order in natural systems arises in accord with rules that govern the physical world, and can be modeled and predicted through the use of mathematics. | **Instructional Sequence** | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Trimester 1 | | | Trimester 2 | | | | Trimester 3 | | |
| | Sep. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June |
| Strand A: Organization and Development | | | | | | | | | | |
| Develop and use evidence based on criteria to determine if an unfamiliar object is living or non-living. | X | | | | | | | | | |
| Compare and contrast structures that have similar functions in various organisms and explain how those functions may be carried out by structures that have different physical appearances (lungs vs. gills) | | X | | | | | | | | |
| Strand B: Matter and Energy Transformations | | | | | | | | | | |
| Identify sources of energy (food) in a variety of settings. | | X | | | | | | | | |
| Strand C: Interdependence | | | | | | | | | | |
| Predict the biotic and abiotic characteristics of an unfamiliar organism's habitat. | | X | | | | | | | | |
| Explain the consequences of rapid ecosystem change (floods, snowfall, etc.) and compare to gradual ecosystem change. | | X | | | | | | | | |
| Strand D: Heredity and Reproduction | | | | | | | | | | |
| Compare the physical characteristics of different stages of life cycle of an individual organism. | | X | | | | | | | | |
| Strand E: Evolution and Diversity | | | | | | | | | | |
| Evaluate similar populations in an ecosystem with regard to their ability to thrive and grow. | | X | | | | | | | | |
| Model an adaptation to a species that would increase its chances of survival should the environment become colder, wetter, warmer over time. | | X | | | | | | | | |

**Subject: Science**
**Grade: 7**
**Instructional Scope**

| **Standard 5.4 Earth Systems Science:** Students will understand that the Earth operates as a set of complex and dynamic interconnected systems, and is part of the all encompassing system of the universe. | **Instructional Sequence** | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Trimester 1 | | | Trimester 2 | | | | Trimester 3 | | |
| | Sep. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June |
| Strand A: Objects in the Universe | | | | | | | | | | |
| No new objectives introduced. | | | | | | | | | | |
| Strand B: History of the Earth | | | | | | | | | | |
| No new objectives introduced. | | | | | | | | | | |
| Strand C: Properties of Earth Materials | | | | | | | | | | |
| No new objectives introduced. | | | | | | | | | | |
| Strand D: Tectonics | | | | | | | | | | |
| No new objectives introduced. | | | | | | | | | | |
| Strand E: Energy in Earth Systems | | | | | | | | | | |
| Explain how energy from the Sun is transformed or transferred in global wind circulation, ocean circulation, and the water cycle. | | | | | | X | | | | |
| Generate and analyze evidence through simulations that the Sun's apparent motion across the sky changes over the course of the year. | | | | X | | | | | | |
| Construct and evaluate models demonstrating the rotation of the Earth on its axis and the orbit of the Earth around the Sun. | | | | | X | | | | | |
| Predict what would happen to an orbiting object if gravity were increased, decreased, or taken away. | | | | X | | | | | | |
| Compare and contrast the major physical characteristics (including size and scale) of solar system objects using evidence in the form of data tables and photographs. | | | | | | | X | | | |
| Analyze moon phase, eclipse and tidal data to construct models that explain how the relative positions and motions of the Sun, Earth, and Moon cause these three phenomena. | | | | X | | | | | | |
| Use evidence of global variations in day length, temperature, and the amount of solar radiation striking Earth's surface, to create models that explain these phenomena and seasons. | | | | | X | | | | | |
| Predict how the gravitational force between two bodies would differ for bodies of different masses or different distances apart. | | | | | | | | | X | |
| Analyze data regarding the motion of comets, planets and moons to find general patterns of orbital motion (Kepler's Laws). | | | | | X | | | | | |
| Strand F: Climate and Weather | | | | | | | | | | |
| No new objectives introduced. | | | | | | | | | | |
| Strand G.: Biogeochemical Cycles | | | | | | | | | | |
| No new objectives introduced. | | | | | | | | | | |

**Subject: Science**
**Grade: 8**
**Instructional Scope**

| **Standard 5.1 Science Practices:** Students will understand that science is both a body of knowledge and evidence-based model building enterprise that continually exists, refines, and revises knowledge through the productive practices of generating scientific evidence and reflecting on scientific knowledge. | **Instructional Sequence** | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Trimester 1 | | | Trimester 2 | | | | Trimester 3 | | |
| | Sep. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June |
| Strand A: Understanding Scientific Explanations | | | | | | | | | | |
| Demonstrate understanding and use interrelationships among central scientific concepts to revise explanations and to consider alternative explanations. | X | | | | | | | | | |
| Develop and use mathematical, physical, and computational tools to build conceptual-based models and to pose theories. | | | X | | | | | | | |
| Use scientific principles and theories to build and refine standard for data collection, posing controls, and presenting evidence. | | | | X | | | | | | |
| Strand B: Generating Scientific Evidence through Active Investigations | | | | | | | | | | |
| Ask scientifically valid questions and give priority to evidence when responding. | X | | | | | | | | | |
| Design investigations, collect and analyze data, and evaluate evidence to determine central tendencies, causal/correlational relationships, and anomalous data. | | | X | | | | | | | |
| Build, refine, and represent evidence-based models using mathematical, physical, and computational tools. | | | X | | | | | | | |
| Compare alternative scientific arguments based on the data represented. | | | X | | | | | | | |
| Use quality controls to examine data sets and evidence to generate and review explanations. | | | X | | | | | | | |
| Strand C: Reflecting on Scientific Knowledge | | | | | | | | | | |
| Refine understandings of interrelationships among central science concepts as new evidence emerges from posing controls for investigations. | X | | | | | | | | | |
| Generate date representations and structures (e.g. bar graphs including histograms) and use the information for developing patterns; for revising predictions and explanations. | X | | | | | | | | | |
| Consider alternative theories to interpret and evaluate evidence-based arguments. | | X | | | | | | | | |
| Strand D: Participating Productively in Science | | | | | | | | | | |
| Engage in multiple forms of discussion in order to process, make sense of, and learn from others' ideas, observations, and experiences. | | | X | | | | | | | |
| Make thinking visible using literal representations such as graphs, tables, journals, concept maps, and diagrams. | X | | | | | | | | | |
| Talk about individual scientific thinking in order to reflect on, participate in, build on scientific knowledge, and to receive feedback. | X | | | | | | | | | |
| Demonstrate how to use scientific tools and instruments and how to handle animals with respect for their safety and welfare. | | | | | | | | | X | |
| Strand E: Energy in Earth Systems | | | | | | | | | | |
| No new objectives introduced. | | | | | | | | | | |

**Subject: Science**
**Grade : 8**
**Instructional Scope**

| **Standard 5-2 Physical Science:** Students will understand physical science principles, including fundamental ideas about matter, energy, and motion, as powerful conceptual tools for making sense of phenomena in physical, living, earth, and space systems. | **Instructional Sequence** | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Trimester 1 | | | Trimester 2 | | | | Trimester 3 | | |
| | Sep. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June |
| Strand A: Properties of Matter | | | | | | | | | | |
| Explain that all matter is made of atoms, and give examples of common elements-substances composed of just one kind of atom. | | | | | X | | | | | |
| Analyze and explain the implications of the statement "all substances are composed of elements." | | | | | X | | | | | |
| Use the kinetic molecular model to predict how solids, liquids and gases would behave under various physical circumstances such as heating or cooling. | | | | X | | | | | | |
| Predict the physical and chemical properties of elements based on their position on the Periodic Table. | | | | | X | | | | | |
| Predict the physical properties of a substance when given a description of atomic or molecular configurations. | | | | | X | | | | | |
| Identify unknown substances based on data regarding physical and chemical properties. | | | | | | X | | | | |
| Determine whether a substance is metal or nonmetal through student designed investigations. | | | | | | X | | | | |
| Determine the relative acidity and reactivity of common acids, such as vinegar or cream of tarter, through a variety of student designed investigations. | | | | | | X | | | | |
| Strand B: Changes in Matter | | | | | | | | | | |
| Explain, using atomic theory, why the mass of reactants and the mass of products remain constant. | | | X | | | | | | | |
| Compare and contrast the physical properties of reactants with products after chemical reaction, such as those that occur during photosynthesis and cellular respiration. | | | X | | | | | | | |
| Strand C: Forms of Energy | | | | | | | | | | |
| No new objectives introduced. | | | | | | | | | | |
| Strand D: Energy Transfer and Conservation | | | | | | | | | | |
| No new objectives introduced. | | | | | | | | | | |
| Strand E: Motion and Forces | | | | | | | | | | |
| No new objectives introduced. | | | | | | | | | | |

**Subject: Science**
**Grade: 8**
**Instructional Scope**

| **Standard 5.3 Life Science:** Students will understand life science principles as powerful conceptual tools for making sense of the complexity, diversity, and interconnectedness of life on Earth. Order in natural systems arises in accord with rules that govern the physical world, and can be modeled and predicted through the use of mathematics. | **Instructional Sequence** | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Trimester 1 | | | Trimester 2 | | | | Trimester 3 | | |
| | Sep. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June |
| Strand A: Organization and Development | | | | | | | | | | |
| Compare the benefits and limitations of existing as a single or multicellular organism. | | | | | | | | | X | |
| Relate the structures of cells, tissues, organs, and systems to their functions in supporting life. | | | | | | | | | X | |
| Strand B: Matter and Energy Transformations | | | | | | | | | | |
| Relate energy and nutritional needs of organisms in a variety of life stages and situations, including stages of development, and periods of maintenance. | | | | | | | | | X | |
| Analyze the components of a consumer's diet and trace them back to plants and plant products. | | | | | | | | | X | |
| Strand C: Interdependence | | | | | | | | | | |
| No new objectives introduced. | | | | | | | | | | |
| Strand D: Heredity and Reproduction | | | | | | | | | | |
| Defend the concept that through reproduction, genetic traits are passed from one generation to the next using evidence collected from observations of inherited traits. | | | X | | | | | | | |
| Explain the source of variation among siblings. | | | X | | | | | | | |
| Describe the environmental conditions or factors that may lead to a change in a cell's genetic information or to an organism's development and how these changes are passed on. | | | X | | | | | | | |
| Strand E: Evolution and Diversity | | | | | | | | | | |
| Organize and present evidence to show how the extinction of a species is related to an inability to adapt to changing environmental conditions using quantitative and qualitative data. | | | X | | | | | | | |
| Classify organisms using observable structures of fossils. | | | X | | | | | | | |

**Subject: Science**
**Grade: 8**
**Instructional Scope**

| **Standard 5.4 Earth Systems Science:** Students will understand that the Earth operates as a set of complex and dynamic interconnected systems, and is part of the all encompassing system of the universe. | **Instructional Sequence** | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Trimester 1 | | | Trimester 2 | | | | Trimester 3 | | |
| | Sep. | Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Apr. | May | June |
| Strand A: Objects in the Universe | | | | | | | | | | |
| No new objectives introduced. | | | | | | | | | | |
| Strand B: History of the Earth | | | | | | | | | | |
| No new objectives introduced. | | | | | | | | | | |
| Strand C: Properties of Earth Materials | | | | | | | | | | |
| No new objectives introduced. | | | | | | | | | | |
| Strand D: Tectonics | | | | | | | | | | |
| Present evidence to support arguments for the theory of plate motion. | | | | | | | | X | | |
| Explain why geomagnetic north and geographic north are at different locations. | | | | | | | | X | | |
| Strand E: Energy in Earth Systems | | | | | | | | | | |
| No new objectives introduced. | | | | | | | | | | |
| Strand F: Climate and Weather | | | | | | | | | | |
| No new objectives introduced. | | | | | | | | | | |
| Strand G.: Biogeochemical Cycles | | | | | | | | | | |
| Explain how chemical and physical mechanisms (changes) are responsible for creating a variety of landforms. | X | | | | | | | | | |
| Investigate a local or global environmental issue by defining the problem, researching possible causative factors, understanding the underlying science, and evaluating the benefits and risks of alternative solutions. | X | | | | | | | | | |