

| Grade Level: 3rd | | Time: First and Second Quarter | | | | |
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| LIFE SCIENCE: Survival of Plants and Animals | | | | | | |
| Core Ideas for Understanding Science: | | | Core Ideas for Using Science: | | | |
| I.1. Organisms are organized on cellular levels and have a finite life span. I.2. Organisms require a supply of energy and materials for which they often depend on, or compete with, other organisms. | | | U1. Scientists explain phenomena using evidence obtained from observations and or scientific investigations. Evidence may lead you to developing models and or theories to make sense of phenomena. As new evidence is discovered, models and theories can be revised. | | | |
| Standards | Essential Questions | Objectives (I Can) | Cross Cutting Concepts: | Key Vocabulary | Resources (Activities/Lessons/Experiments) | Assessments |
| 1.1.LU.1.5 Develop and use models to explain that plants and animals (including humans) have internal and external structures that serve various functions that aid in growth, survival, behavior, and reproduction. | How do the internal and external structures of plants help them in survival, growth, behavior, and reproduction. How do the internal and external structures of animals help them in survival, growth, behavior, and reproduction. | I can design a model to explain the functions of the external structures of a plant (roots, stems, leaves, flowers) I can identify processes of reproduction in flowering plants, including pollination, seed dispersal, and germination. I can explain how animal adaptations aid in their survival. | scale, proportion and quantity systems and system models structure and function stability and change | Internal external growth survival behavior reproduction model pollination germination adaptations | Survival of Plants and Animals Resources/Lesson Plans | |
| 1.1.LU.1.6 Plan and carry out investigations to demonstrate ways plants react to stimuli. | How do plants and animals react to stimuli? | I can carry out an investigation to demonstrate ways plants react to stimuli. | | stimuli investigation | | |

| Grade Level: 3rd | | Time: Third Quarter | | | | |
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| EARTH and LIFE SCIENCE: Energy Systems | | | | | | |
| Core Ideas for Understanding Science: | | | Core Ideas for Using Science: | | | |
| E.1. The composition of the Earth and its atmosphere and the natural and human processes occurring within them shape the Earth's surface and its climate. E.2. Organisms require a supply of energy and materials for which they often depend on, or compete with, other organisms. | | | U1. Scientists explain phenomena using evidence obtained from observations and or scientific investigations. Evidence may lead you to developing models and or theories to make sense of phenomena. As new evidence is discovered, models and theories can be revised. | | | |
| Standards | Essential Questions | Objectives (I Can) | Cross Cutting Concepts: | Key Vocabulary | Resources (Activities/Lessons/Experiments) | Assessments |
| 1.1.LU.1.4 Construct an explanation describing how the Sun is the primary source of energy impacting Earth's systems. | What are the Earth's systems? How does the energy from the Sun impact Earth's systems? | I can identify the Earth's systems: geosphere, hydrosphere, atmosphere, and biosphere. I can identify the different layers of the geosphere. I can explain the sun's effect on the earth's systems. | Cause and effect systems and system models energy and matter stability and change | Earth's major systems are the geosphere (soils and molten rock, soil, and sediments), the hydrosphere (water and ice), the atmosphere (air), and the biosphere (living things, including humans). These systems interact in multiple ways to affect Earth's surface materials and processes. The ocean supports a variety of ecosystems and organisms, shapes landforms, and influences climate. Winds and clouds in the atmosphere interact with the landforms to determine patterns of weather. | | |
| 1.1.LU.1.7 Develop and use system models to describe the flow of energy from the Sun to and among living organisms. | How does the energy flow from the Sun affect living organisms? | I can develop a model to describe the flow of energy from the sun to living organisms. | patterns cause and effect systems and system models structure and function stability and change | system plants energy transferred model minerals food web consumer | Energy System Unit Resources/Lesson Plans | |
| 1.1.LU.1.8 Construct an argument from evidence that organisms are interdependent. | How are organisms dependent on each other? | I can construct an argument using evidence that plants and animal systems work together for survival (pollinators). | cause and effect systems and system models energy and matter structure and function stability and change | carnivore herbivore food chain | | |

| Grade Level: 3rd | | Time: Fourth Quarter | | | | |
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| Physical Science: Energy of Light and Sound | | | | | | |
| Core Ideas for Understanding Science: | | | Core Ideas for Using Science: | | | |
| P.2. Objects can affect other objects as a displacement. P.4. The total amount of energy in a closed system is always the same but can be transferred from one energy store to another during an event. | | | U1. Scientists explain phenomena using evidence obtained from observations and or scientific investigations. Evidence may lead to developing models and or theories to make sense of phenomena. As new evidence is discovered, models and theories can be revised. | | | |
| Standards | Essential Questions | Objectives (I Can) | Cross Cutting Concepts: | Key Vocabulary | Resources (Activities/Lessons/Experiments) | Assessments |
| 3.P2.U.1.1 Ask questions and investigate the relationship between light, objects, and the human eye. | How does light energy travel? How does the human eye work? | I can ask questions and then investigate the relationship between light, objects and the human eye. I can investigate how light reflects, refracts and diffracts. I can understand the function of the eye as light enters the eye. | patterns cause and effect systems and system models energy and matter structure and function | light eye give out reflect detect magnified | Energy of Light and Sound Resources/Lesson Plans | |
| 3.P2.U.1.2 Plan and carry out an investigation to explore how sound waves affect objects at varying distances. | How does a vibrating object produce sound? | I can explore how sound is produced through vibrations. I can investigate how vibrations create sound. I can explain how wavelengths and amplitude affect sound. I can investigate how traveling sound waves affect one another. | | ear sound vibrate wavelengths amplitude | | |
| 3.P4.U.1.3 Develop and use models to describe how light and sound waves transfer energy. | | I can create a model that demonstrates how energy is transferred through light from the sun to the earth. I can create a model to demonstrate how sound waves travel through different mediums (liquids, solids, gas) and explain the flow of energy. I can develop and explain how heat demonstrates the transfer of energy. | cause and effect scale, proportion, and quantity systems and system models energy and matter stability and change | energy sound light heat collide transfer | | |