# ELEMENTARY SCIENCE GRADE 1 CURRICULUM

## Course 50120

First grade students will learn the principles and practices of science in an integrated program. They study topics from Biology, Physical science, Earth science, and Ecology. Student will conduct investigations posing hypotheses, making observations, using scientific tools to collect data, analyze data, represent findings in models and draw conclusions. Major topics to be studies are: characteristics and needs of living things, plant and animal differences, basic needs of living things, growth and change in living things, environment, seasons, an introduction to matter, movement and sound, and sources of energy.

**FIRST GRADESCIENCE OUTLINE:**

| Goals | Skills | Summative Assessments | Time Frame | Main Resources |
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| • Identify and describe plant parts and their functions.<br>• Describe changes that occur as a result of habitat.<br>• Observe and describe the properties of liquids and solids.<br>• Observe and describe what happens when substances are heated or cooled.<br>• Recognize that everything is made of matter.<br>• Demonstrate various types of motion.<br>• Compare and contrast how light travels through different materials<br>• Become familiar with weather instruments.<br>• Identify and describe the basic needs of living things.<br>• Describe a simple food chain within a terrestrial habitat.<br>• Describe the seasons and describe how the change of the season affects living things.<br>• Recognize the difference between renewable and nonrenewable resources. | • Categorize living and nonliving things by external characteristics.<br>• Participate in investigations about living and/or nonliving things to answer a question or to test a prediction.<br>• Grow plants from seed and describe how they grow and change.<br>• Observe, describe, and sort earth materials.<br>• Participate in simple investigations of matter to answer a question or to test a prediction.<br>• Participate in simple investigations of energy and motion to answer a question or to test a prediction.<br>• Participate in simple investigations of the objects found in the day or night sky to answer a question or to test a prediction. | Chapter Tests | 1-year | Scott Foresman Science 1 |

**FIRSTGRADESCIENCE MAP:**

| TIME FRAME | BIG IDEAS | CONCEPTS | ESSENTIAL QUESTIONS | STANDARDS | OBJECTIVES | DIFFERENTIATION | ASSESSMENT |
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| Chpt. 1 (Weeks 1-2) | • Living things have certain characteristics and needs. | 1. Living and Nonliving | • What Do Living Things Need?<br>• Lesson 1: What are living things?<br>• Lesson 2: What do plants need?<br>• Lesson 3: What do animals need?<br>• Lesson 4: What are nonliving things? | 3.1.1.A1<br>Categorize living and nonliving things by external characteristics.<br><br>3.1.1.A2<br>Investigate the dependence of living things on the sun's energy, water, food/nutrients, air, living space, and shelter.<br><br>3.1.1.A9<br>• Distinguish between scientific fact and opinion. • Ask questions about objects, organisms, and events. • Understand that all scientific investigations involve asking and answering questions and comparing the answer with what is already known. • Plan and conduct a simple investigation and understand that different questions require different kinds of investigations. • Use simple equipment (tools and other technologies) to gather data and understand that this allows scientists to collect more information than relying only on their senses to gather information. • Use data/evidence to construct explanations and understand that scientists develop explanations based on their evidence and compare them with their current scientific knowledge. • Communicate procedures and explanations giving priority to evidence and understanding that scientists make their results public, describe their investigations so they can be reproduced, and review and ask questions about the work of other scientists. | Lesson 1/4:<br>• The student knows how to classify things as living and nonliving.<br>• The student knows that environments have living and nonliving parts.<br>Lesson 2 /3:<br>• The student understands that living things need food,water,pace,and shelter to survive.<br>• The student understands why living things must have food,water,space,and shelter to survive. | graphic organizers<br><br>visuals<br><br>small groups<br><br>scaffolded questions | Activity book<br><br>Workbook<br><br>Formal assessment<br><br>Informal observations |
| Chpt. 2 (Weeks | • Different kinds of plants and animals | 1. Habitats | • Where Do Plants and | 3.1.1.A2<br>Investigate the dependence of | • The student knows that animals and | graphic organizers | Activity book |

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| 3-4) | live in different kinds of places. | | Animals Live?<br>• Lesson 1: What is a forest habitat?<br>• Lesson 2: What is a wetland habitat?<br>• Lesson 3: What is an ocean habitat?<br>• Lesson 4: What is a desert habitat? | living things on the sun's energy, water, food/nutrients, air, living space, and shelter.<br><br>3.1.1.A9<br>• Distinguish between scientific fact and opinion. • Ask questions about objects, organisms, and events. • Understand that all scientific investigations involve asking and answering questions and comparing the answer with what is already known. • Plan and conduct a simple investigation and understand that different questions require different kinds of investigations. • Use simple equipment (tools and other technologies) to gather data and understand that this allows scientists to collect more information than relying only on their senses to gather information. • Use data/evidence to construct explanations and understand that scientists develop explanations based on their evidence and compare them with their current scientific knowledge. • Communicate procedures and explanations giving priority to evidence and understanding that scientists make their results public, describe their investigations so they can be reproduced, and review and ask questions about the work of other scientists.<br><br>3.1.1.C3<br>CONSTANCY AND CHANGE<br>Describe changes that occur as a result of habitat.<br><br>S.K-2.A.1.1.1<br>Identify a scientific fact as something that can be observed using the five senses.<br><br>S.K-2.A.2.1.1<br>Understand that making a change to an investigation may | plants can be associated with their environment by an examination of their structural characteristics.<br>Lesson 1/2/3/4:<br>• The student knows plants and animals that live in a particular habitat.<br>• The student knows some characteristics of different environments and some plants and animals found there.<br>• The student knows the characteristics of the climate in different environments. | visuals<br><br>small groups<br><br>scaffolded questions | Workbook<br><br>Diorama<br><br>Formal assessment<br><br>Informal observations |

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| | | | | change the outcome(s) of the investigation.<br><br>S.K-2.A.2.1.2<br>Describe outcomes of an investigation.<br><br>S.K-2.A.2.2.1<br>Identify simple tools that can be used in an investigation (e.g., measuring cup, hand lens, ruler, balance scale, thermometer).<br><br>S.K-2.A.3.1.1<br>Describe a system as being made of multiple parts that work together.<br><br>S.K-2.B.2.1.1<br>Identify and describe habitats (e.g., wetland, meadow, forest, lake, river, ocean, pond). | | | |
| Chpt. 3 (Weeks 5-6) | • Plants and animals need certain things to live. | 1. How plants and animals live. | • How Do Parts Help Living Things?<br>• Lesson 1: What helps animals live in their habitats?<br>• Lesson 2: How do animals get food?<br>• Lesson 3: What can help protect animals?<br>• Lesson 4: What are some parts of plants?<br>• Lesson 5: What helps protect plants? | 3.1.1.A1<br>Categorize living and nonliving things by external characteristics.<br><br>3.1.1.A2<br>Investigate the dependence of living things on the sun's energy, water, food/nutrients, air, living space, and shelter.<br><br>3.1.1.A5<br>Identify and describe plant parts and their function.<br><br>3.1.1.A9<br>• Distinguish between scientific fact and opinion. • Ask questions about objects, organisms, and events. • Understand that all scientific investigations involve asking and answering questions and comparing the answer with what is already known. • Plan and conduct a simple investigation and understand that different questions require different kinds of investigations. • Use simple equipment (tools and other technologies) to gather data and understand that this | • The student uses a variety of tools to identify characteristics of objects.<br>Lesson1/2/4/5:<br>• The student know that plants and animals have adaptations that help them to survive in their environment.<br>• The student knows some ways in which animals and plants are adapted to living in different environments.<br>Lesson 3:<br>• The student knows that animals and plants can be associated with their environment by an examination of their structural characteristics.<br>• The student | graphic organizers<br><br>visuals<br><br>small groups<br><br>scaffolded questions | Activity book<br><br>Workbook<br><br>Written assessments<br><br>Informal observations<br><br>Projects |

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| | | | | allows scientists to collect more information than relying only on their senses to gather information. • Use data/evidence to construct explanations and understand that scientists develop explanations based on their evidence and compare them with their current scientific knowledge. • Communicate procedures and explanations giving priority to evidence and understanding that scientists make their results public, describe their investigations so they can be reproduced, and review and ask questions about the work of other scientists.<br><br>3.1.1.B1<br>Grow plants from seed and describe how they grow and change. Compare to adult plants.<br><br>3.1.1.C3<br>CONSTANCY AND CHANGE<br>Describe changes that occur as a result of habitat.<br><br>S.K-2.A.2.1.1<br>Understand that making a change to an investigation may change the outcome(s) of the investigation.<br><br>S.K-2.A.2.1.2<br>Describe outcomes of an investigation.<br><br>S.K-2.A.2.2.1<br>Identify simple tools that can be used in an investigation (e.g., measuring cup, hand lens, ruler, balance scale, thermometer).<br><br>S.K-2.A.3.1.1<br>Describe a system as being made of multiple parts that work together.<br><br>S.K-2.B.1.1.1<br>Describe basic external | compares and describes the structural characteristics of plants and animals. | | |

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| | | | | structures of animals and plants.<br><br>S.K-2.B.1.1.2<br>Identify a plant or animal based on a given life cycle stage (e.g., butterfly, frog, seed-producing plant). | | | |
| Chpt. 4 (Weeks 7-8) | • Animals and Plants Grow and Change | 1. Life cycles | • How Do Animals and Plants Grow and Change?<br>• Lesson 1: How does a frog grow?<br>• Lesson 2: How does a butterfly grow?<br>• Lesson 3: How do animals grow and change?<br>• Lesson 4: How does a daisy grow?<br>• Lesson 5: How do trees grow?<br>• Lesson 6: How do plants grow and change? | 3.1.1.A2<br>Investigate the dependence of living things on the sun's energy, water, food/nutrients, air, living space, and shelter.<br><br>3.1.1.A9<br>• Distinguish between scientific fact and opinion. • Ask questions about objects, organisms, and events. • Understand that all scientific investigations involve asking and answering questions and comparing the answer with what is already known. • Plan and conduct a simple investigation and understand that different questions require different kinds of investigations. • Use simple equipment (tools and other technologies) to gather data and understand that this allows scientists to collect more information than relying only on their senses to gather information. • Use data/evidence to construct explanations and understand that scientists develop explanations based on their evidence and compare them with their current scientific knowledge. • Communicate procedures and explanations giving priority to evidence and understanding that scientists make their results public, describe their investigations so they can be reproduced, and review and ask questions about the work of other scientists.<br>3.1.1.B1<br>Grow plants from seed and describe how they grow and change. Compare to adult plants. | • The student knows ways organisms change as they grow and mature.<br>Lesson 1-5:<br>• The student knows ways organisms change as they grow and mature.<br>• The student knows that living things grow and change in different ways and in different lengths of time.<br>Lesson 3/6:<br>• The student knows that plants and animals are similar but not identical to their parents. | graphic organizers<br><br>visuals<br><br>small groups<br><br>scaffolded questions | Projects<br><br>Activity book<br><br>Workbook<br><br>Written assessments |

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| | | | | 3.1.1.C3<br>CONSTANCY AND CHANGE<br>Describe changes that occur as a result of habitat.<br><br>S.K-2.A.1.1.1<br>Identify a scientific fact as something that can be observed using the five senses.<br><br>S.K-2.B.1.1.1<br>Describe basic external structures of animals and plants.<br><br>S.K-2.B.1.1.2<br>Identify a plant or animal based on a given life cycle stage (e.g., butterfly, frog, seed-producing plant).<br><br>S.K-2.B.2.1.1<br>Identify and describe habitats (e.g., wetland, meadow, forest, lake, river, ocean, pond). | | | |
| Chpt. 5 (Week 9) | • All Living Things Are Connected | 1. Food chains | • How Are Living Things Connected?<br>• Lesson 1: How do plants and animals get food?<br>• Lesson 2: How do living things get food in a rain forest?<br>• Lesson 3: How do living things get food in a marsh? | 3.1.1.C4<br>• Distinguish between scientific fact and opinion. • Ask questions about objects, organisms, and events. • Understand that all scientific investigations involve asking and answering questions and comparing the answer with what is already known. • Plan and conduct a simple investigation and understand that different questions require different kinds of investigations. • Use simple equipment (tools and other technologies) to gather data and understand that this allows scientists to collect more information than relying only on their senses to gather information. • Use data/evidence to construct explanations and understand that scientists develop explanations based on their evidence and compare them with their current scientific knowledge. • Communicate procedures and explanations giving priority to evidence and | • The student knows that plants and animals are dependent upon each other for survival.<br>• The student uses prior knowledge, illustrations, and text to make predictions.<br>Lesson 1:<br>• The student knows that plants produce oxygen and food for animals.<br>• The student understands that animals can be grouped according to what they eat.<br>Lesson 2/3:<br>• The student knows the basic needs of all living things.<br>• The student knows that plants and | graphic organizers<br><br>visuals<br><br>small groups<br><br>scaffolded questions | Written assessments<br><br>Activity book<br><br>Workbook<br><br>Informal observations<br><br>Projects |

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| | | | | understanding that scientists make their results public, describe their investigations so they can be reproduced, and review and ask questions about the work of other scientists.<br><br>4.4.1.C<br>Describe the life cycles of different plants and animals in a terrestrial habitat.<br><br>S.K-2.A.2.1.2<br>Describe outcomes of an investigation.<br><br>S.K-2.A.3.1.1<br>Describe a system as being made of multiple parts that work together.<br><br>S.K-2.B.1.1<br>Identify living things and their life processes.<br>S.K-2.B.1.1.1<br>Describe basic external structures of animals and plants.<br><br>S.K-2.B.1.1.2<br>Identify a plant or animal based on a given life cycle stage (e.g., butterfly, frog, seed-producing plant).<br><br>S.K-2.B.2.1<br>Understand that all living things are a part of an ecosystem. | animals are dependent upon each other for survival.<br>• The student understands that living things are part of a food chain. | | |
| Chpt. 6 (Week 10) | • Land, water, and air are important to all living things. | 1. Land, water, and air | • How are land, water, and air important?<br>• Lesson 1: What makes up earth?<br>• Lesson 2: What are rocks and soil?<br>• Lesson 3: What changes land?<br>• Lesson 4: How do living things | 3.3.1.A1<br>Observe, describe, and sort earth materials. Compare the composition of different soils.<br><br>3.3.1.A7<br>• Distinguish between scientific fact and opinion. • Ask questions about objects, organisms, and events. • Understand that all scientific investigations involve asking and answering questions and comparing the answer with what is already known. • Plan and conduct a simple | • The student uses models as representations of real things.<br>• The student knows that people use scientific processes including hypotheses, making inferences, and recording and communicating data when exploring the | graphic organizers<br><br>visuals<br><br>small groups<br><br>scaffolded questions | Projects<br><br>Activity book<br><br>Workbook<br><br>Experiments<br><br>Written assessments |

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| | | | use natural resources?<br>• Lesson 5: How can you reduce,reuse,and recycle? | investigation and understand that different questions require different kinds of investigations. • Use simple equipment (tools and other technologies) to gather data and understand that this allows scientists to collect more information than relying only on their senses to gather information. • Use data/evidence to construct explanations and understand that scientists develop explanations based on their evidence and compare them with their current scientific knowledge. • Communicate procedures and explanations giving priority to evidence and understanding that scientists make their results public, describe their investigations so they can be reproduced, and review and ask questions about the work of other scientists.<br><br>4.3.1.A<br>Identify some renewable resources used in the community.<br><br>4.3.1.B<br>Recognize the difference between renewable and nonrenewable resources.<br><br>4.4.1.A<br>Describe the role of soil in agricultural systems.<br><br>4.5.1.C<br>Describe how pollution affects the health of a habitat.<br><br>4.5.1.D<br>Identify where waste from the home, school and community goes for disposal.<br><br>S.K-2.A.1.1.3<br>Describe how technology can help people (e.g., home appliances, phones, computers, | natural world.<br>Lesson 1/2:<br>• The student extends and refines knowledge that the surface of the earth is composed of different types of solid materials.<br>Lesson 3:<br>• The student knows that erosion and weathering change land and that organisms cause changes in the environment where they live.<br>Lesson 4/5:<br>• The student knows some kinds of organisms that live on or near the surface of the earth in land, water, and air.<br>• The student extends and refines knowledge of ways to care for the earth at home and in school. | | Informal observations |

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| | | | | transportation).<br><br>S.K-2.A.3.1<br>Identify systems as either natural or human-made.<br><br>S.K-2.A.3.1.1<br>Describe a system as being made of multiple parts that work together.<br><br>S.K-2.B.3.2.1<br>Identify natural events (e.g., fire, flood, extreme weather) and human actions (e.g., road construction, pollution, urban development, dam building) that can impact an ecosystem.<br><br>S.K-2.B.3.3.1<br>Identify methods of recycling and reusing resources.<br><br>S.K-2.D.1.1<br>Describe various materials that make up Earth.<br><br>S.K-2.D.1.1.1<br>Identify different types of Earth materials (e.g., rock, soil, sand, pebbles).<br><br>S.K-2.D.1.2<br>Understand that Earth has natural resources.<br><br>S.K-2.D.1.2.1<br>Identify Earth's natural resources. | | | |
| Chpt. 7 (Week 11) | • There are four seasons in a year. | 1. Weather | • What Are The Four Seasons?<br>• Lesson 1: How can you measure weather?<br>• Lesson 2: How do clouds form?<br>• Lesson 3: What are some kinds of wet | 3.3.1.A5<br>Become familiar with weather instruments. Collect, describe, and record basic information about weather over time.<br><br>3.3.1.A7<br>• Distinguish between scientific fact and opinion. • Ask questions about objects, organisms, and events. • Understand that all scientific investigations involve asking and answering questions | • The student works with others to complete an experiment to solve a problem.<br>• The student uses simple graphs, pictures, written statements, and numbers to observe,describe, record, and | graphic organizers<br><br>visuals<br><br>small groups<br><br>scaffolded questions | Projects<br><br>Experiments<br><br>Written assessments<br><br>Informal observations |

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| | | | weather?<br>• Lesson 4: What sre the four seasons? | and comparing the answer with what is already known. • Plan and conduct a simple investigation and understand that different questions require different kinds of investigations. • Use simple equipment (tools and other technologies) to gather data and understand that this allows scientists to collect more information than relying only on their senses to gather information. • Use data/evidence to construct explanations and understand that scientists develop explanations based on their evidence and compare them with their current scientific knowledge. • Communicate procedures and explanations giving priority to evidence and understanding that scientists make their results public, describe their investigations so they can be reproduced, and review and ask questions about the work of other scientists.<br><br>3.3.1.B1<br>Explain why shadows fall in different places at different times of the day.<br><br>4.1.1.E<br>Describe the seasons and describe how the change of the season affects living things.<br><br>S.K-2.A.1.1.1<br>Identify a scientific fact as something that can be observed using the five senses.<br><br>S.K-2.A.1.1.2<br>Identify examples of technology.<br><br>S.K-2.A.1.1.3<br>Describe how technology can help people (e.g., home appliances, phones, computers, transportation). | compare data.<br>Lesson 1:<br>• The student uses the senses, tools, and instruments to obtain information from his or her surroundings.<br>Lesson 2/3:<br>• The student recognizes patterns in weather.<br>Lesson 4:<br>• The student recognizes patterns in weather.<br>• The student knows that most natural events occur in patterns. | | Activity book<br><br>Workbook |

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| | | | | S.K-2.A.2<br>Processes, Procedures, and Tools of Scientific Investigations<br><br>S.K-2.A.2.2<br>Identify appropriate instruments for a specific task.<br><br>S.K-2.A.2.2.1<br>Identify simple tools that can be used in an investigation (e.g., measuring cup, hand lens, ruler, balance scale, thermometer).<br><br>S.K-2.D.2<br>Weather, Climate, and Atmospheric Processes<br><br>S.K-2.D.2.1<br>Identify basic weather conditions.<br><br>S.K-2.D.2.1.1<br>Identify weather variables (i.e., temperature, wind speed, wind direction, and precipitation).<br><br>S.K-2.D.2.1.2<br>Identify how weather conditions affect daily life.<br><br>S.K-2.D.3.1.2<br>Describe and identify the four seasons in Pennsylvania. | | | |
| Chpt. 8 (Weeks 12-13) | • Objects are made up of a substance we call matter. | 1. Observing matter | • How can Objects Be Described?<br>• Lesson 1: What is matter?<br>• Lesson 2: What are solids, liquids, and gases?<br>• Lesson 3: How does matter change?<br>• Lesson 4: How can water change?<br>• Lesson 5: What are other | 3.2.1.A1<br>Observe and describe the properties of liquids and solids. Investigate what happens when solids are mixed with water and other liquids are mixed with water.<br><br>3.2.1.A3<br>Identify how heating, melting, cooling, etc., may cause changes in properties of materials.<br><br>3.2.1.A4<br>Observe and describe what happens when substances are heated or cooled. Distinguish between changes that are reversible (melting, freezing) and | • The student works with others to complete an experiment or to solve a problem.<br>• The student identifies words and constructs meaning from text, illustrations, graphics, and charts using the strategies of phonics, word structure, and context clues.<br>• The student knows that objects can be | graphic organizers<br><br>visuals<br><br>small groups<br><br>scaffolded questions | Projects<br><br>Activity book<br><br>Workbook<br><br>Experiments<br><br>Written assessments<br><br>Informal observations |

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| | | | ways matter changes? | not reversible (e.g. baking a cake, burning fuel).<br><br>3.2.1.A5<br>CONSTANCY AND CHANGE<br>Recognize that everything is made of matter.<br><br>3.2.1.A6<br>• Distinguish between scientific fact and opinion. • Ask questions about objects, organisms, and events. • Understand that all scientific investigations involve asking and answering questions and comparing the answer with what is already known. • Plan and conduct a simple investigation and understand that different questions require different kinds of investigations. • Use simple equipment (tools and other technologies) to gather data and understand that this allows scientists to collect more information than relying only on their senses to gather information. • Use data/evidence to construct explanations and understand that scientists develop explanations based on their evidence and compare them with their current scientific knowledge. • Communicate procedures and explanations giving priority to evidence and understanding that scientists make their results public, describe their investigations so they can be reproduced, and review and ask questions about the work of other scientists.<br><br>S.K-2.A.2.1.2<br>Describe outcomes of an investigation.<br><br>S.K-2.A.2.2.1<br>Identify simple tools that can be used in an investigation (e.g., measuring cup, hand lens, ruler, balance scale, thermometer). | grouped according to their physical characteristics.<br>Lesson 1:<br>• The student knows that objects are composed of parts that are too small to be seen without magnification.<br>Lesson 2:<br>• The student knows that objects are grouped according to their physical characteristics.<br>Lesson 3:<br>• The student knows the effect of heating and cooling on solids, liquids, and gases.<br>Lesson 4:<br>• The student knows the effect of heating and cooling on solids,liquids,and gases.<br>• The student knows the physical properties of water, ice, and steam.<br>Lesson 5:<br>• The student recognizes systems of matter and energy. | | |

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| | | | | S.K-2.C.1<br>Structure, Properties, and Interaction of Matter and Energy<br><br>S.K-2.C.1.1<br>Describe changes in matter.<br>S.K-2.C.1.1.1<br><br>Describe basic changes to properties of matter (e.g., formation of mixtures and solutions, baking and cooking, freezing, heating, evaporating, melting). | | | |
| Chpt. 9 (Weeks 14-15) | • Objects can move. | 1. Movement and Sound | • What Makes Objects Move?<br>• Lesson 1: What makes things move?<br>• Lesson 2: What is speed?<br>• Lesson 3: How do things move?<br>• Lesson 4: What do magnets do?<br>• Lesson 5: How are sounds made?<br>• Lesson 6: What sounds are around us? | 3.2.1.B1<br>Demonstrate various types of motion. Observe and describe how pushes and pulls change the motion of objects.<br><br>3.2.1.B5<br>Compare and contrast how light travels through different materials. Explore how mirrors and prisms can be used to redirect a light beam.<br><br>3.2.1.B7<br>• Distinguish between scientific fact and opinion. • Ask questions about objects, organisms, and events. • Understand that all scientific investigations involve asking and answering questions and comparing the answer with what is already known. • Plan and conduct a simple investigation and understand that different questions require different kinds of investigations. • Use simple equipment (tools and other technologies) to gather data and understand that this allows scientists to collect more information than relying only on their senses to gather information. • Use data/evidence to construct explanations and understand that scientists develop explanations based on their evidence and compare | • The student listens,records, and compares the ideas and observations of others.<br>• The student knows that vibrations of objects cause sounds.<br>Lesson 1:<br>• The student understands various ways that gravity affects the motion of objects.<br>Lesson 2:<br>• The student knows that various things move at different speeds when different forces arre applied.<br>Lesson 3:<br>• The student investigates by observing and then describing how things move in many different ways, such as straight,zig zag.around and around, and back and forth.<br>Lesson 4:<br>• The student | graphic organizers<br><br>visuals<br><br>small groups<br><br>scaffolded questions | Experiments<br><br>Projects<br><br>Activity book<br><br>Workbook<br><br>Written assessment |

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| | | | | them with their current scientific knowledge. • Communicate procedures and explanations giving priority to evidence and understanding that scientists make their results public, describe their investigations so they can be reproduced, and review and ask questions about the work of other scientists.<br><br>S.K-2.A.1<br>Reasoning and Analysis<br><br>S.K-2.A.2<br>Processes, Procedures, and Tools of Scientific Investigations<br><br>S.K-2.A.2.1<br>Apply skills necessary to plan and conduct an investigation.<br><br>S.K-2.A.2.2<br>Identify appropriate instruments for a specific task.<br><br>S.K-2.A.2.2.1<br>Identify simple tools that can be used in an investigation (e.g., measuring cup, hand lens, ruler, balance scale, thermometer). | observes the effects some objects have on others even when the two objects might not touch.<br>• The student knows that magnetism is a force that may attract or repel certain materials.<br>Lesson 5:<br>• The student knows that vibrations of objects cause sound.<br>Lesson 6:<br>• The student describes sounds from common sources. | | |
| Chpt. 10 (Weeks 16-17) | • Energy comes from different sources. | 1. Learning about energy | • Where Does Energy Come From?<br>• Lesson 1: What gives off heat?<br>• Lesson 2: What can energy do?<br>• Lesson 3: What makes shadows and light?<br>• Lesson 4: What uses energy around us?<br>• Lesson 5: How do you get | 3.2.1.B5<br>Compare and contrast how light travels through different materials. Explore how mirrors and prisms can be used to redirect a light beam.<br><br>3.2.1.B6<br>ENERGY Recognize that light from the sun is an important source of energy for living and nonliving systems and some source of energy is needed for all organisms to stay alive and grow.<br><br>3.2.1.B7<br>• Distinguish between scientific fact and opinion. • Ask questions about objects, organisms, and | • The student uses simple graphs,pictures,written statements, and numbers to observe, describe, record, and compare data.<br>• The student predicts which materials will allow light to pass through and which ones will not.<br>Lesson 1:<br>• The student knows that the sun supplies heat and light energy to | graphic organizers<br><br>visuals<br><br>small groups<br><br>scaffolded questions | Experiments<br><br>Projects<br><br>Activity book<br><br>Workbook<br><br>Written assessment<br><br>Informal observations |

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| | | | energy? | events. • Understand that all scientific investigations involve asking and answering questions and comparing the answer with what is already known. • Plan and conduct a simple investigation and understand that different questions require different kinds of investigations. • Use simple equipment (tools and other technologies) to gather data and understand that this allows scientists to collect more information than relying only on their senses to gather information. • Use data/evidence to construct explanations and understand that scientists develop explanations based on their evidence and compare them with their current scientific knowledge. • Communicate procedures and explanations giving priority to evidence and understanding that scientists make their results public, describe their investigations so they can be reproduced, and review and ask questions about the work of other scientists.<br><br>S.K-2.A.1.1.2<br>Identify examples of technology.<br><br>S.K-2.A.1.1.3<br>Describe how technology can help people (e.g., home appliances, phones, computers, transportation).<br><br>S.K-2.A.2.2<br>Identify appropriate instruments for a specific task.<br><br>S.K-2.A.2.2.1<br>Identify simple tools that can be used in an investigation (e.g., measuring cup, hand lens, ruler, balance scale, thermometer).<br><br>S.K-2.C.1<br>Structure, Properties, and | earth.<br>• The student knows that heat can be produced in many ways.<br>Lesson 2:<br>• The student knows that heat from the sun has varying effects depending on the surface it strikes.<br>Lesson 3:<br>• The student knows that the sun supplies heat and light energy to earth.<br>• The student knows that light can pass through some objects but not others.<br>Lesson 4:<br>• The student recognizes systems of matter and energy.<br>Lesson 5:<br>• The student knows ways that human activities require and release energy.<br>• The student understands that people need food for energy.<br>• The student knows the nutritional value of various foods. | | |

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