

Curriculum Map - Science - 2 Science

Unit	State Standards	Outcomes	Essential Questions	Essential Skills	Assessments	Faith Integration
Entire School Year						
<p>Life Science Unit A- Plants and Animals <i>(updated 8/12/20)</i></p>	<p>SCI.LS1.C.1(A) Animals obtain food they need from plants or other animals. Plants need water and light.</p> <p>SCI.LS1.D.1(A) Animals sense and communicate information and respond to inputs with behaviors that help them grow and survive.</p> <p>SCI.LS2.A.1(A) Plants depend on water and light to grow. Plants depend on animals for pollination or to move their seeds around.</p> <p>SCI.LS3.A.1(A) Young organisms are very much, but not exactly, like their parents, and also resemble other organisms of the same kind.</p> <p>SCI.LS3.B.1(A) Individuals of the same kind of plant or animal are recognizable as similar, but can also vary in many ways.</p> <p>SCI.CC1.K-2(I) Students recognize that patterns in the natural and human designed world can be observed, used to describe phenomena, and used as evidence.</p> <p>SCI.CC4.K-2(I) Students understand objects and organisms can be described in terms of their parts and that systems in the natural and designed world have parts that work together.</p> <p>SCI.SEP1.A.K-2(I) Students ask simple descriptive questions that can be tested. This includes the following: <ul style="list-style-type: none"> •Ask questions based on observations to find more information about the natural world. •Ask or identify questions that can be answered by an investigation. </p> <p>SCI.SEP4.A.K-2(I) Students collect, record, and share observations. This includes the following: <ul style="list-style-type: none"> •Record information (observations, thoughts, and ideas). •Use and share pictures, drawings, or writings of observations. •Use observations (firsthand or from media) to describe patterns or relationships in the natural and designed worlds in order to answer scientific questions and solve problems. •Compare predictions (based on prior experiences) to what occurred (observable events). •Analyze data from tests of an object or tool to determine if the object or tool works as intended. </p> <p>SCI.SEP8.A.K-2(I) Students use observations and texts to communicate new information. This includes the following: <ul style="list-style-type: none"> •Read developmentally-appropriate texts or use media to obtain scientific and technical information. Use the information to determine patterns in or evidence about the natural and designed worlds. •Describe how specific images (e.g., a diagram showing how a machine works) support a scientific or engineering idea. •Obtain information using various texts, text features (e.g., headings, tables of contents, </p>		<p>How do plants and animals grow and change?</p>	<p>Identify living and non living things. Explain why plants are living things and describe their parts. Describe seeds and their origins. Identify the stages in a plant's life cycle. Recognize that plants look and act like their parent plants. Describe ways that plants change to meet their needs. Describe, classify, and compare animals. Explain how animal parts help animals meet their needs. Explain that every animal has life cycle. Describe and compare the life cycles of animals. Identify how camouflage helps animals stay safe. Explain how animals protect themselves.</p>	<p>Exit Tickets Formative and Summative Assessments Teacher observation Classwork</p>	<p>We can explore the world God made by studying plants and animals. We marvel in His creative work and praise Him for giving us such a wonderful world in which to live.</p>

Curriculum Map - Science - 2 Science

	<p>glossaries, electronic menus, icons), and other media that will be useful in answering scientific questions or supporting scientific claims.</p> <ul style="list-style-type: none"> •Communicate information or design ideas and solutions with others in oral or written forms. Use models, drawings, writing, or numbers that provide detail about scientific ideas, practices, or design ideas. <p>SCI.LS1.A.1(l) All organisms have external parts that they use to perform daily functions.</p> <p>SCI.LS1.B.1(l) Parents and offspring often engage in behaviors that help the offspring survive.</p>					
<p>Life Science Unit B- Habitats</p> <p><i>(updated 8/12/20)</i></p>	<p>SCI.CC1.K-2(A) Students recognize that patterns in the natural and human designed world can be observed, used to describe phenomena, and used as evidence.</p> <p>SCI.CC2.K-2(A) Students learn that events have causes that generate observable patterns. They design simple tests to gather evidence to support or refute their own ideas about causes</p> <p>SCI.CC3.K-2(A) Students use relative scales (e.g., bigger and smaller; hotter and colder; faster and slower) to describe objects. They use standard units to measure length.</p> <p>SCI.CC4.K-2(A) Students understand objects and organisms can be described in terms of their parts and that systems in the natural and designed world have parts that work together.</p> <p>SCI.CC6.K-2(A) Students observe the shape and stability of structures of natural and designed objects are related to their function(s).</p> <p>SCI.CC7.K-2(A) Students observe some things stay the same while other things change, and things may change slowly or rapidly.</p> <p>SCI.SEP1.A.K-2(A) Students ask simple descriptive questions that can be tested. This includes the following: <ul style="list-style-type: none"> •Ask questions based on observations to find more information about the natural world. •Ask or identify questions that can be answered by an investigation. </p> <p>SCI.SEP1.B.K-2(A) Students define simple problems that can be solved through the development of a new or improved object or tool.</p> <p>SCI.SEP2.A.K-2(A) Students use and develop models (i.e., diagrams, drawings, physical replicas, dioramas, dramatizations, or storyboards) that represent concrete events or design solutions. This includes the following: <ul style="list-style-type: none"> •Distinguish between a model and the actual object, process, or events the model represents. •Compare models to identify common features and differences. •Develop or use models to represent amounts, relationships, relative scales (bigger, smaller), and patterns in the natural and designed world(s). •Develop a simple model based on evidence to represent a proposed object or tool. </p> <p>SCI.SEP3.A.K-2(A) Students plan and carry out simple investigations,</p>		<p>What is a habitat and what are different kinds of habitats?</p>	<p>Describe different habitats and explain how plants and animals use their habitats. Describe a food chain and a food web. Explain why habitats change and what happens when habitats change. Compare and contrast woodland forests and rain forests. Explain how different animals live in forest habitats. Describe desert habitats and explain how plants and animals survive in a dry habitat. Describe oceans and ponds and explain how plants and animals live in oceans and ponds.</p>	<p>Exit tickets Summative and formative assessments Teacher observation Classwork</p>	<p>We are blessed to be able to investigate the world God created and we study God's creation so that we can be good stewards of the Earth. God created the world to be in relationships, even though these relationships are tainted by sin.</p>

based on fair tests, which provide data to support explanations or design solutions. This includes the following:

- With guidance, plan and conduct an investigation in collaboration with peers (for K).
- Plan and conduct an investigation collaboratively to produce data to serve as the basis for evidence to answer a question.
- Evaluate different ways of observing and measuring a phenomenon to determine which way can answer the question being studied.
- Make observations (firsthand or from media) and measurements to collect data that can be used to make comparisons.
- Make observations (firsthand or from media) and measurements of a proposed object or tool or solution to determine if it solves a problem or meets a goal.
- Make predictions based on prior experiences.

SCI.SEP4.A.K-2(A)

Students collect, record, and share observations. This includes the following:

- Record information (observations, thoughts, and ideas).
- Use and share pictures, drawings, or writings of observations.
- Use observations (firsthand or from media) to describe patterns or relationships in the natural and designed worlds in order to answer scientific questions and solve problems.
- Compare predictions (based on prior experiences) to what occurred (observable events).
- Analyze data from tests of an object or tool to determine if the object or tool works as intended.

SCI.SEP5.A.K-2(A)

Students recognize that mathematics can be used to describe the natural and designed world. This includes the following:

- Use counting and numbers to identify and describe patterns in the natural and designed worlds.
- Describe, measure, or compare quantitative attributes of different objects and display the data using simple graphs.
- Use qualitative and/or quantitative data to compare two alternative solutions to a problem.

SCI.SEP6.A.K-2(A)

Students use evidence and ideas in constructing evidence-based accounts of natural phenomena. This includes the following:

- Use information from observations (firsthand and from media) to construct an evidence-based account for natural phenomena.

SCI.SEP6.B.K-2(A)

Students use evidence and ideas in designing solutions. This includes the following:

- Use tools and materials to design and/or build a device that solves a specific problem or a solution to a specific problem.
- Generate and compare multiple solutions to a problem.

SCI.SEP7.A.K-2(A)

Students compare ideas and representations about the natural and designed world. This includes the following:

- Identify arguments that are supported by evidence.
- Distinguish between explanations that account for all gathered evidence and those that do not.
- Analyze why some evidence is relevant to a scientific question and some is not.

Curriculum Map - Science - 2 Science

	<ul style="list-style-type: none"> •Distinguish between opinions and evidence in one's own explanations. •Listen actively to arguments to indicate agreement or disagreement based on evidence, or to retell the main points of the argument. •Construct an argument with evidence to support a claim. •Make a claim about the effectiveness of an object, tool, or solution that is supported by relevant evidence. <p>SCI.SEP8.A.K-2(A) Students use observations and texts to communicate new information. This includes the following:</p> <ul style="list-style-type: none"> •Read developmentally-appropriate texts or use media to obtain scientific and technical information. Use the information to determine patterns in or evidence about the natural and designed worlds. •Describe how specific images (e.g., a diagram showing how a machine works) support a scientific or engineering idea. •Obtain information using various texts, text features (e.g., headings, tables of contents, glossaries, electronic menus, icons), and other media that will be useful in answering scientific questions or supporting scientific claims. •Communicate information or design ideas and solutions with others in oral or written forms. Use models, drawings, writing, or numbers that provide detail about scientific ideas, practices, or design ideas. <p>SCI.LS1.B.1(A) Parents and offspring often engage in behaviors that help the offspring survive.</p> <p>SCI.LS1.C.1(A) Animals obtain food they need from plants or other animals. Plants need water and light.</p> <p>SCI.LS1.D.1(A) Animals sense and communicate information and respond to inputs with behaviors that help them grow and survive.</p> <p>SCI.LS2.A.1(A) Plants depend on water and light to grow. Plants depend on animals for pollination or to move their seeds around.</p>					
<p>Earth/Space Unit C- Our Earth <i>(updated 8/12/20)</i></p>	<p>SCI.CC1.K-2(A) Students recognize that patterns in the natural and human designed world can be observed, used to describe phenomena, and used as evidence.</p> <p>SCI.CC2.K-2(A) Students learn that events have causes that generate observable patterns. They design simple tests to gather evidence to support or refute their own ideas about causes</p> <p>SCI.CC3.K-2(A) Students use relative scales (e.g., bigger and smaller; hotter and colder; faster and slower) to describe objects. They use standard units to measure length.</p> <p>SCI.CC4.K-2(A) Students understand objects and organisms can be described in terms of their parts and that systems in the natural and designed world have parts that work together.</p> <p>SCI.CC5.K-2(A) Students observe objects may break into smaller pieces, be put together into larger pieces, or change shapes.</p>		<p>How can we describe Earth's land and water? What are Earth's resources?</p>	<p>Compare the different landforms on Earth's surface. Identify Earth's layers. Identify sources of Earth's water and classify how people use water. Explain slow and fast changes on Earth. Describe how wind and water can change rocks. Explain what rocks and minerals are and how they are used. Describe what things make up soil and explain how soil is formed. Describe how people</p>	<p>Exit tickets Summative and formative assessments Teacher observation Classwork</p>	<p>God created such a diverse world with various landforms. We are to be caretakers of God's Earth.</p>

SCI.CC6.K-2(A)

Students observe the shape and stability of structures of natural and designed objects are related to their function(s).

SCI.CC7.K-2(A)

Students observe some things stay the same while other things change, and things may change slowly or rapidly.

SCI.SEP1.A.K-2(A)

Students ask simple descriptive questions that can be tested. This includes the following:

- Ask questions based on observations to find more information about the natural world.
- Ask or identify questions that can be answered by an investigation.

SCI.SEP1.B.K-2(A)

Students define simple problems that can be solved through the development of a new or improved object or tool.

SCI.SEP2.A.K-2(A)

Students use and develop models (i.e., diagrams, drawings, physical replicas, dioramas, dramatizations, or storyboards) that represent concrete events or design solutions. This includes the following:

- Distinguish between a model and the actual object, process, or events the model represents.
- Compare models to identify common features and differences.
- Develop or use models to represent amounts, relationships, relative scales (bigger, smaller), and patterns in the natural and designed world(s).
- Develop a simple model based on evidence to represent a proposed object or tool.

SCI.SEP3.A.K-2(A)

Students plan and carry out simple investigations, based on fair tests, which provide data to support explanations or design solutions. This includes the following:

- With guidance, plan and conduct an investigation in collaboration with peers (for K).
- Plan and conduct an investigation collaboratively to produce data to serve as the basis for evidence to answer a question.
- Evaluate different ways of observing and measuring a phenomenon to determine which way can answer the question being studied.
- Make observations (firsthand or from media) and measurements to collect data that can be used to make comparisons.
- Make observations (firsthand or from media) and measurements of a proposed object or tool or solution to determine if it solves a problem or meets a goal.
- Make predictions based on prior experiences.

SCI.SEP4.A.K-2(A)

Students collect, record, and share observations. This includes the following:

- Record information (observations, thoughts, and ideas).
- Use and share pictures, drawings, or writings of observations.
- Use observations (firsthand or from media) to describe patterns or relationships in the natural and designed worlds in order to answer scientific questions and solve problems.
- Compare predictions (based on prior experiences) to what occurred (observable events).
- Analyze data from tests of an object or tool to determine if the object or tool works as intended.

SCI.SEP5.A.K-2(A)

use natural resources and why people should take care of Earth's resources.

Students recognize that mathematics can be used to describe the natural and designed world. This includes the following:

- Use counting and numbers to identify and describe patterns in the natural and designed worlds.
- Describe, measure, or compare quantitative attributes of different objects and display the data using simple graphs.
- Use qualitative and/or quantitative data to compare two alternative solutions to a problem.

SCI.SEP6.B.K-2(A)

Students use evidence and ideas in designing solutions. This includes the following:

- Use tools and materials to design and/or build a device that solves a specific problem or a solution to a specific problem.
- Generate and compare multiple solutions to a problem.

SCI.SEP7.A.K-2(A)

Students compare ideas and representations about the natural and designed world. This includes the following:

- Identify arguments that are supported by evidence.
- Distinguish between explanations that account for all gathered evidence and those that do not.
- Analyze why some evidence is relevant to a scientific question and some is not.
- Distinguish between opinions and evidence in one's own explanations.
- Listen actively to arguments to indicate agreement or disagreement based on evidence, or to retell the main points of the argument.
- Construct an argument with evidence to support a claim.
- Make a claim about the effectiveness of an object, tool, or solution that is supported by relevant evidence.

SCI.SEP8.A.K-2(A)

Students use observations and texts to communicate new information. This includes the following:

- Read developmentally-appropriate texts or use media to obtain scientific and technical information. Use the information to determine patterns in or evidence about the natural and designed worlds.
- Describe how specific images (e.g., a diagram showing how a machine works) support a scientific or engineering idea.
- Obtain information using various texts, text features (e.g., headings, tables of contents, glossaries, electronic menus, icons), and other media that will be useful in answering scientific questions or supporting scientific claims.
- Communicate information or design ideas and solutions with others in oral or written forms. Use models, drawings, writing, or numbers that provide detail about scientific ideas, practices, or design ideas.

SCI.ESS.A.1(A)

Patterns of movement of the sun, moon, and stars, as seen from Earth, can be observed, described, and predicted.

SCI.ESS.B.1(A)

Seasonal patterns of sunrise and sunset can be observed, described, and predicted.

SCI.ESS.C.2(A)

Some events on Earth occur very quickly; others can occur very slowly.

Curriculum Map - Science - 2 Science

<p>Earth/Space Unit D- Weather and Sky</p> <p><i>(updated 8/12/20)</i></p>	<p>SCI.CC1.K-2(A) Students recognize that patterns in the natural and human designed world can be observed, used to describe phenomena, and used as evidence.</p> <p>SCI.CC2.K-2(A) Students learn that events have causes that generate observable patterns. They design simple tests to gather evidence to support or refute their own ideas about causes</p> <p>SCI.CC3.K-2(A) Students use relative scales (e.g., bigger and smaller; hotter and colder; faster and slower) to describe objects. They use standard units to measure length.</p> <p>SCI.CC4.K-2(A) Students understand objects and organisms can be described in terms of their parts and that systems in the natural and designed world have parts that work together.</p> <p>SCI.CC5.K-2(A) Students observe objects may break into smaller pieces, be put together into larger pieces, or change shapes.</p> <p>SCI.CC6.K-2(A) Students observe the shape and stability of structures of natural and designed objects are related to their function(s).</p> <p>SCI.CC7.K-2(A) Students observe some things stay the same while other things change, and things may change slowly or rapidly.</p> <p>SCI.SEP1.A.K-2(A) Students ask simple descriptive questions that can be tested. This includes the following: •Ask questions based on observations to find more information about the natural world. •Ask or identify questions that can be answered by an investigation.</p> <p>SCI.SEP1.B.K-2(A) Students define simple problems that can be solved through the development of a new or improved object or tool.</p> <p>SCI.SEP2.A.K-2(A) Students use and develop models (i.e., diagrams, drawings, physical replicas, dioramas, dramatizations, or storyboards) that represent concrete events or design solutions. This includes the following: •Distinguish between a model and the actual object, process, or events the model represents. •Compare models to identify common features and differences. •Develop or use models to represent amounts, relationships, relative scales (bigger, smaller), and patterns in the natural and designed world(s). •Develop a simple model based on evidence to represent a proposed object or tool.</p> <p>SCI.SEP3.A.K-2(A) Students plan and carry out simple investigations, based on fair tests, which provide data to support explanations or design solutions. This includes the following: •With guidance, plan and conduct an investigation in collaboration with peers (for K). •Plan and conduct an investigation collaboratively to produce data to serve as the basis for evidence to answer a question. •Evaluate different ways of observing and measuring a phenomenon to determine which way can answer the question being studied.</p>		<p>How can we describe weather? How do things move in the night sky?</p>	<p>Describe temperature, wind, and precipitation. Identify and use tools to measure weather. Identify the different stages of the water cycle. Describe and illustrate the water cycle. Predict weather by observing clouds. Identify different types of clouds and storms. Identify how Earth rotates to make day and night. Explain how shadows change as Earth moves. Describe seasonal and annual patterns on Earth. Relate seasonal patterns to Earth's orbit around the Sun. Observe the Moon and its phases as it orbits Earth. Recognize that the Sun is the closest star to Earth. Explain the relationship between the planets and the Sun. Describe the planets in the solar system.</p>	<p>Exit tickets Summative and formative assessments Teacher observation Class work</p>	<p>God created the world with order. The seasons and the moon have patterns. We can rely on spring following winter and we can rely on God to never change.</p>
--	---	--	--	---	--	---

- Make observations (firsthand or from media) and measurements to collect data that can be used to make comparisons.
 - Make observations (firsthand or from media) and measurements of a proposed object or tool or solution to determine if it solves a problem or meets a goal.
 - Make predictions based on prior experiences.
- SCI.SEP4.A.K-2(A)
Students collect, record, and share observations. This includes the following:
- Record information (observations, thoughts, and ideas).
 - Use and share pictures, drawings, or writings of observations.
 - Use observations (firsthand or from media) to describe patterns or relationships in the natural and designed worlds in order to answer scientific questions and solve problems.
 - Compare predictions (based on prior experiences) to what occurred (observable events).
 - Analyze data from tests of an object or tool to determine if the object or tool works as intended.
- SCI.SEP5.A.K-2(A)
Students recognize that mathematics can be used to describe the natural and designed world. This includes the following:
- Use counting and numbers to identify and describe patterns in the natural and designed worlds.
 - Describe, measure, or compare quantitative attributes of different objects and display the data using simple graphs.
 - Use qualitative and/or quantitative data to compare two alternative solutions to a problem.
- SCI.SEP6.A.K-2(A)
Students use evidence and ideas in constructing evidence-based accounts of natural phenomena. This includes the following:
- Use information from observations (firsthand and from media) to construct an evidence-based account for natural phenomena.
- SCI.SEP6.B.K-2(A)
Students use evidence and ideas in designing solutions. This includes the following:
- Use tools and materials to design and/or build a device that solves a specific problem or a solution to a specific problem.
 - Generate and compare multiple solutions to a problem.
- SCI.SEP7.A.K-2(A)
Students compare ideas and representations about the natural and designed world. This includes the following:
- Identify arguments that are supported by evidence.
 - Distinguish between explanations that account for all gathered evidence and those that do not.
 - Analyze why some evidence is relevant to a scientific question and some is not.
 - Distinguish between opinions and evidence in one's own explanations.
 - Listen actively to arguments to indicate agreement or disagreement based on evidence, or to retell the main points of the argument.
 - Construct an argument with evidence to support a claim.
 - Make a claim about the effectiveness of an object, tool, or solution that is supported by relevant evidence.
- SCI.SEP8.A.K-2(A)

Curriculum Map - Science - 2 Science

	<p>Students use observations and texts to communicate new information. This includes the following:</p> <ul style="list-style-type: none"> •Read developmentally-appropriate texts or use media to obtain scientific and technical information. Use the information to determine patterns in or evidence about the natural and designed worlds. •Describe how specific images (e.g., a diagram showing how a machine works) support a scientific or engineering idea. •Obtain information using various texts, text features (e.g., headings, tables of contents, glossaries, electronic menus, icons), and other media that will be useful in answering scientific questions or supporting scientific claims. •Communicate information or design ideas and solutions with others in oral or written forms. Use models, drawings, writing, or numbers that provide detail about scientific ideas, practices, or design ideas. <p>SCI.PS3.D.1(A) Sunlight warms Earth's surface.</p> <p>SCIE.ESS2.C.2(A) Water is found in many types of places and in different forms on Earth.</p> <p>SCI.ESS2.D.2(A) Weather is the combination of sunlight, wind, snow or rain, and temperature in a particular region and time. People record weather patterns over time.</p> <p>SCI.ESS3.B.1(A) In a region, some kinds of severe weather are more likely than others. Forecasts allow communities to prepare for severe weather.</p>					
<p>Physical Science Unit E-Matter (updated 8/12/20)</p>	<p>SCI.CC1.K-2(A) Students recognize that patterns in the natural and human designed world can be observed, used to describe phenomena, and used as evidence.</p> <p>SCI.CC2.K-2(A) Students learn that events have causes that generate observable patterns. They design simple tests to gather evidence to support or refute their own ideas about causes</p> <p>SCI.CC3.K-2(A) Students use relative scales (e.g., bigger and smaller; hotter and colder; faster and slower) to describe objects. They use standard units to measure length.</p> <p>SCI.CC4.K-2(A) Students understand objects and organisms can be described in terms of their parts and that systems in the natural and designed world have parts that work together.</p> <p>SCI.CC5.K-2(A) Students observe objects may break into smaller pieces, be put together into larger pieces, or change shapes.</p> <p>SCI.CC6.K-2(A) Students observe the shape and stability of structures of natural and designed objects are related to their function(s).</p> <p>SCI.CC7.K-2(A) Students observe some things stay the same while other things change, and things may change slowly or rapidly.</p> <p>SCI.SEP1.A.K-2(A) Students ask simple descriptive questions that can be tested. This includes the following:</p> <ul style="list-style-type: none"> •Ask questions based on observations to find more 		<p>What are different types of matter? How can matter change?</p>	<p>Identify matter as anything that has mass and takes up space. Compare and contrast different properties of matter. Compare and contrast the properties of solids. Use different ways to measure solids. Describe the properties of liquids and gases. Compare and contrast the properties of liquids and gases. Identify chemical and physical changes. Observe how heat can change matter. Observe how solids, liquids, and gases mix.</p>	<p>Exit tickets Summative and formative assessments Teacher observation Class work</p>	<p>We are blessed to be able to observe the world God made and to work with the things He created.</p>

information about the natural world.

•Ask or identify questions that can be answered by an investigation.

SCI.SEP1.B.K-2(A)

Students define simple problems that can be solved through the development of a new or improved object or tool.

SCI.SEP2.A.K-2(A)

Students use and develop models (i.e., diagrams, drawings, physical replicas, dioramas, dramatizations, or storyboards) that represent concrete events or design solutions. This includes the following:

- Distinguish between a model and the actual object, process, or events the model represents.
- Compare models to identify common features and differences.
- Develop or use models to represent amounts, relationships, relative scales (bigger, smaller), and patterns in the natural and designed world(s).
- Develop a simple model based on evidence to represent a proposed object or tool.

SCI.SEP3.A.K-2(A)

Students plan and carry out simple investigations, based on fair tests, which provide data to support explanations or design solutions. This includes the following:

- With guidance, plan and conduct an investigation in collaboration with peers (for K).
- Plan and conduct an investigation collaboratively to produce data to serve as the basis for evidence to answer a question.
- Evaluate different ways of observing and measuring a phenomenon to determine which way can answer the question being studied.
- Make observations (firsthand or from media) and measurements to collect data that can be used to make comparisons.
- Make observations (firsthand or from media) and measurements of a proposed object or tool or solution to determine if it solves a problem or meets a goal.
- Make predictions based on prior experiences.

SCI.SEP4.A.K-2(A)

Students collect, record, and share observations. This includes the following:

- Record information (observations, thoughts, and ideas).
- Use and share pictures, drawings, or writings of observations.
- Use observations (firsthand or from media) to describe patterns or relationships in the natural and designed worlds in order to answer scientific questions and solve problems.
- Compare predictions (based on prior experiences) to what occurred (observable events).
- Analyze data from tests of an object or tool to determine if the object or tool works as intended.

SCI.SEP5.A.K-2(A)

Students recognize that mathematics can be used to describe the natural and designed world. This includes the following:

- Use counting and numbers to identify and describe patterns in the natural and designed worlds.
- Describe, measure, or compare quantitative attributes of different objects and display the data using simple graphs.
- Use qualitative and/or quantitative data to compare two alternative solutions to a problem.

SCI.SEP6.A.K-2(A)

Students use evidence and ideas in constructing evidence-based accounts of natural phenomena. This includes the following:

- Use information from observations (firsthand and from media) to construct an evidence-based account for natural phenomena.

SCI.SEP6.B.K-2(A)

Students use evidence and ideas in designing solutions. This includes the following:

- Use tools and materials to design and/or build a device that solves a specific problem or a solution to a specific problem.
- Generate and compare multiple solutions to a problem.

SCI.SEP7.A.K-2(A)

Students compare ideas and representations about the natural and designed world. This includes the following:

- Identify arguments that are supported by evidence.
- Distinguish between explanations that account for all gathered evidence and those that do not.
- Analyze why some evidence is relevant to a scientific question and some is not.
- Distinguish between opinions and evidence in one's own explanations.
- Listen actively to arguments to indicate agreement or disagreement based on evidence, or to retell the main points of the argument.
- Construct an argument with evidence to support a claim.
- Make a claim about the effectiveness of an object, tool, or solution that is supported by relevant evidence.

SCI.SEP8.A.K-2(A)

Students use observations and texts to communicate new information. This includes the following:

- Read developmentally-appropriate texts or use media to obtain scientific and technical information. Use the information to determine patterns in or evidence about the natural and designed worlds.
- Describe how specific images (e.g., a diagram showing how a machine works) support a scientific or engineering idea.
- Obtain information using various texts, text features (e.g., headings, tables of contents, glossaries, electronic menus, icons), and other media that will be useful in answering scientific questions or supporting scientific claims.
- Communicate information or design ideas and solutions with others in oral or written forms. Use models, drawings, writing, or numbers that provide detail about scientific ideas, practices, or design ideas.

SCI.PS1.A.2(A)

Matter exists as different substances that have different observable properties. Different properties are suited to different purposes. Objects can be built up from smaller parts.

SCI.PS1.B.2(A)

Heating or cooling a substance may cause changes that can be observed. Sometimes these changes are reversible, and sometimes they are not.

<p>Physical Science Unit F- Motion and Energy</p> <p>(updated 8/12/20)</p>	<p>SCI.CC1.K-2(A) Students recognize that patterns in the natural and human designed world can be observed, used to describe phenomena, and used as evidence.</p> <p>SCI.CC2.K-2(A) Students learn that events have causes that generate observable patterns. They design simple tests to gather evidence to support or refute their own ideas about causes</p> <p>SCI.CC3.K-2(A) Students use relative scales (e.g., bigger and smaller; hotter and colder; faster and slower) to describe objects. They use standard units to measure length.</p> <p>SCI.CC4.K-2(A) Students understand objects and organisms can be described in terms of their parts and that systems in the natural and designed world have parts that work together.</p> <p>SCI.CC5.K-2(A) Students observe objects may break into smaller pieces, be put together into larger pieces, or change shapes.</p> <p>SCI.CC6.K-2(A) Students observe the shape and stability of structures of natural and designed objects are related to their function(s).</p> <p>SCI.CC7.K-2(A) Students observe some things stay the same while other things change, and things may change slowly or rapidly.</p> <p>SCI.SEP1.A.K-2(A) Students ask simple descriptive questions that can be tested. This includes the following: •Ask questions based on observations to find more information about the natural world. •Ask or identify questions that can be answered by an investigation.</p> <p>SCI.SEP1.B.K-2(A) Students define simple problems that can be solved through the development of a new or improved object or tool.</p> <p>SCI.SEP2.A.K-2(A) Students use and develop models (i.e., diagrams, drawings, physical replicas, dioramas, dramatizations, or storyboards) that represent concrete events or design solutions. This includes the following: •Distinguish between a model and the actual object, process, or events the model represents. •Compare models to identify common features and differences. •Develop or use models to represent amounts, relationships, relative scales (bigger, smaller), and patterns in the natural and designed world(s). •Develop a simple model based on evidence to represent a proposed object or tool.</p> <p>SCI.SEP3.A.K-2(A) Students plan and carry out simple investigations, based on fair tests, which provide data to support explanations or design solutions. This includes the following: •With guidance, plan and conduct an investigation in collaboration with peers (for K). •Plan and conduct an investigation collaboratively to produce data to serve as the basis for evidence to answer a question. •Evaluate different ways of observing and measuring a phenomenon to determine which way can answer the question being studied.</p>					
--	---	--	--	--	--	--

<ul style="list-style-type: none"> •Make observations (firsthand or from media) and measurements to collect data that can be used to make comparisons. •Make observations (firsthand or from media) and measurements of a proposed object or tool or solution to determine if it solves a problem or meets a goal. •Make predictions based on prior experiences. 				
<p>SCI.SEP4.A.K-2(A) Students collect, record, and share observations. This includes the following:</p> <ul style="list-style-type: none"> •Record information (observations, thoughts, and ideas). •Use and share pictures, drawings, or writings of observations. •Use observations (firsthand or from media) to describe patterns or relationships in the natural and designed worlds in order to answer scientific questions and solve problems. •Compare predictions (based on prior experiences) to what occurred (observable events). •Analyze data from tests of an object or tool to determine if the object or tool works as intended. 				
<p>SCI.SEP5.A.K-2(A) Students recognize that mathematics can be used to describe the natural and designed world. This includes the following:</p> <ul style="list-style-type: none"> •Use counting and numbers to identify and describe patterns in the natural and designed worlds. •Describe, measure, or compare quantitative attributes of different objects and display the data using simple graphs. •Use qualitative and/or quantitative data to compare two alternative solutions to a problem. 				
<p>SCI.SEP6.A.K-2(A) Students use evidence and ideas in constructing evidence-based accounts of natural phenomena. This includes the following:</p> <ul style="list-style-type: none"> •Use information from observations (firsthand and from media) to construct an evidence-based account for natural phenomena. 				
<p>SCI.SEP6.B.K-2(A) Students use evidence and ideas in designing solutions. This includes the following:</p> <ul style="list-style-type: none"> •Use tools and materials to design and/or build a device that solves a specific problem or a solution to a specific problem. •Generate and compare multiple solutions to a problem. 				
<p>SCI.SEP7.A.K-2(A) Students compare ideas and representations about the natural and designed world. This includes the following:</p> <ul style="list-style-type: none"> •Identify arguments that are supported by evidence. •Distinguish between explanations that account for all gathered evidence and those that do not. •Analyze why some evidence is relevant to a scientific question and some is not. •Distinguish between opinions and evidence in one's own explanations. •Listen actively to arguments to indicate agreement or disagreement based on evidence, or to retell the main points of the argument. •Construct an argument with evidence to support a claim. •Make a claim about the effectiveness of an object, tool, or solution that is supported by relevant evidence. 				
<p>SCI.SEP8.A.K-2(A)</p>				

Students use observations and texts to communicate new information. This includes the following:

- Read developmentally-appropriate texts or use media to obtain scientific and technical information. Use the information to determine patterns in or evidence about the natural and designed worlds.
- Describe how specific images (e.g., a diagram showing how a machine works) support a scientific or engineering idea.
- Obtain information using various texts, text features (e.g., headings, tables of contents, glossaries, electronic menus, icons), and other media that will be useful in answering scientific questions or supporting scientific claims.
- Communicate information or design ideas and solutions with others in oral or written forms. Use models, drawings, writing, or numbers that provide detail about scientific ideas, practices, or design ideas.

SCI.PS2.A.1(A)

Pushes and pulls can have different strengths and directions, and can change the speed or direction of an object's motion, or start or stop it.

SCI.PS2.A.2(A)

A bigger push or pull makes things speed up or slow down more quickly.

SCI.PS2.B.1(A)

When objects touch or collide, they push on one another and can result in a change of motion.

SCI.PS3.C.1(A)

Bigger pushes and pulls cause bigger changes in an object's motion or shape.

SCI.PS4.A.1(A)

Sound can make matter vibrate, and vibrating matter can make sound.

SCI.PS4.B.1(A)

Objects can be seen only when light is available to illuminate them.

SCI.PS4.C.1(A)

People use devices to send and receive information.