Branchburg Township Public Schools

Office of Curriculum and Instruction

Grade 1 Science Curriculum

Adopted by the Board of Education September 2023

This curriculum is aligned with the 2020 New Jersey Student Learning Standards in Science

Curriculum Scope and Sequence			
Content Area	**Science**	**Course Title/Grade Level:**	**First Grade**

Topic/Unit Name		Suggested Pacing
Topic/Unit #1	Earth's Place in the Universe	Mid. October - November
Topic/Unit #2	Heredity	January
Topic/Unit #3	Molecules to Organisms	February
Topic/Unit #4	Waves	April- Mid. May

Topic/Unit 1 Title	Earth's Place in the Universe	Approximate Pacing	October - December

STANDARDS

NJSLS Science

Students will be able to…	Students will know…	Crosscutting Concepts
Students who demonstrate understanding can: **1-ESS1-1. Use observations of the sun, moon, and stars to describe patterns that can be predicted.** [Clarification Statement: Examples of patterns could include that the sun and moon appear to rise in one part of the sky, move across the sky, and set; and stars other than our sun are visible at night but not during the day.] [Assessment Boundary: Assessment of star patterns is limited to stars being seen at night and not during the day.] **1-ESS1-2. Make observations at different times of year to relate the amount of daylight to the time of year.** [Clarification Statement: Emphasis is on relative comparisons of the amount of daylight in the winter to the amount in the spring or fall.] [Assessment Boundary: Assessment is limited to relative amounts of daylight, not quantifying the hours or time of daylight.]	**ESS1.A: The Universe and its Stars** ● Patterns of the motion of the sun, moon, and stars in the sky can be observed, described, and predicted. (1-ESS1-1) **ESS1.B: Earth and the Solar System** ● Seasonal patterns of sunrise and sunset can be observed, described, and predicted. (1-ESS1-2)	**Patterns** ● Patterns in the natural world can be observed, used to describe phenomena, and used as evidence. (1-ESS1-1), (1-ESS1-2) --- **Connections to Nature of Science** **Scientific Knowledge Assumes an Order and Consistency in Natural Systems** ● Science assumes natural events happen today as they happened in the past. (1-ESS1-1) ● Many events are repeated (1-ESS1-1)

Interdisciplinary Connections:	CS & DT:
ELA: ● **W.1.8** With guidance and support from adults, recall information from experiences or gather information from provided sources to answer a question.	**8.1.2.NI.1: Model and describe how individuals use computers to connect to other individuals, places, information, and ideas through a network.** **8.1.2.DA.3: Identify and describe patterns in data visualizations.** ● *Example: Students will research the different seasons using various pictures, videos, and read alouds. Students will research and study the moon and sun rotation to be able to explain why the seasons change. Using models or*

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Example: Day and night lesson activating prior knowledge.

RL.1.1. Ask and answer questions about key details in a text.

Example: Students will ask and answer questions regarding Little Owls Day and Night read alouds.

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drawings, students will record where the sun is positioned in the sky during the different seasons.
8.2.2.ED.3: Select and use appropriate tools and materials to build a product using the design process.
8.2.2.ITH.1: Identify products that are designed to meet human wants or needs.

Example: Students will be given a season and students will have to figure out which items would need to be designed for that season. Students will work together to create models to display their season.

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9.4.2.CI.2: Demonstrate originality and inventiveness in work (e.g., 1.3A.2CR1a).

Example: Students will model and explain why the sun is higher in June than December. In all careers and professions explanation is needed to clarify and justify thinking. For example, scientists have to explain their reasoning.

9.1.2.CAP.1: Make a list of different types of jobs and describe the skills associated with each job.

Example: Students will model how the Earth, Moon, and Sun rotate. Using your physical body to make a representation to communicate something. For example, actors, dancers, scientists use physical models to effectively communicate.

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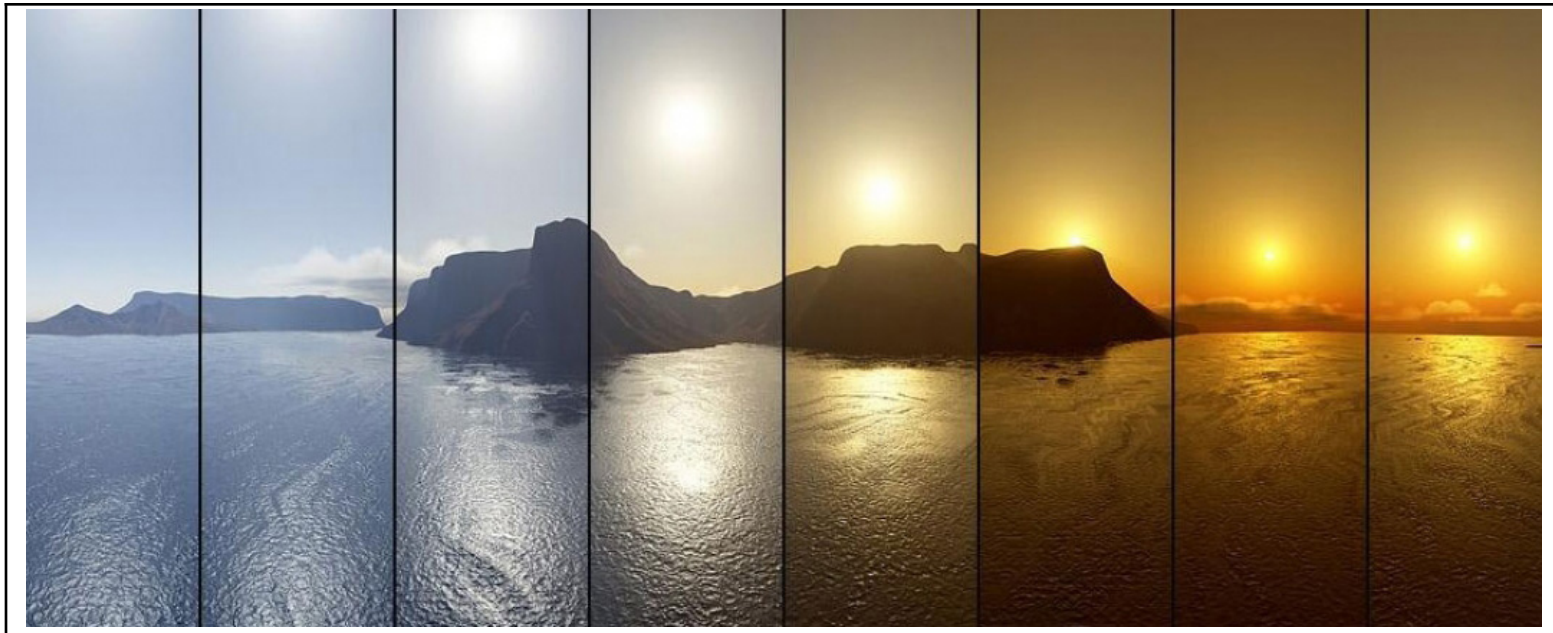

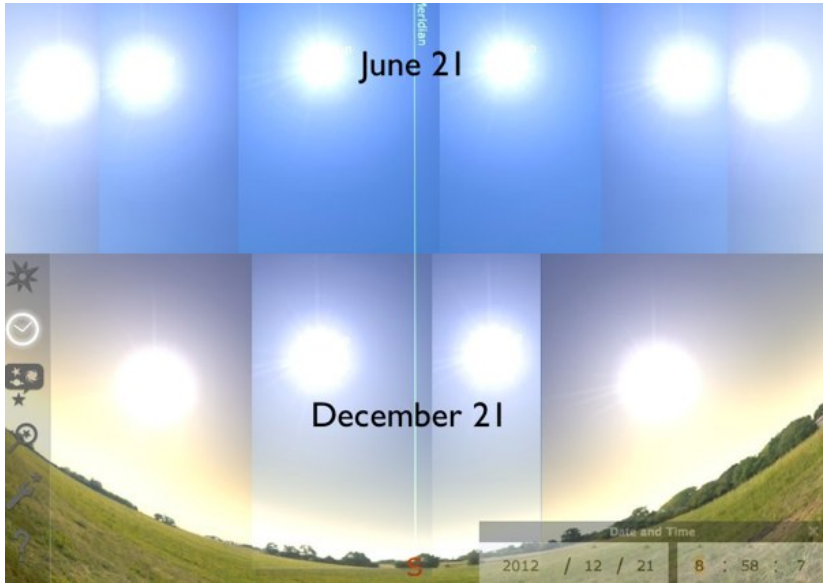
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STUDENT LEARNING OBJECTIVES	
Key Knowledge	**Process/Skills/Procedures/Application of Key Knowledge**
Students will know: ● **Use observations of the sun, moon, and stars to describe patterns that can be predicted.** ● **Make observations at different times of year to relate the amount of daylight to the time of year.**	***Students will be able to:*** ● **The Universe and its Stars** ● **Earth and the Solar System**

ASSESSMENT OF LEARNING	
Summative Assessment (Assessment at the end of the learning period)	● Students will develop a model and construct an argument with evidence to explain the science behind the phenomena using the Disciplinary Core Ideas, Cross Cutting Concepts, and Science and Engineering Practices. ● Seasons poster project.
Formative Assessments (Ongoing assessments during the learning period to inform instruction)	● Models, claims, evidence, data and research, planning and carrying out investigations, classroom discussions, anecdotal notes
Alternative Assessments (Any learning activity or assessment that asks students to *perform* to demonstrate their knowledge, understanding and proficiency)	● Discovery Education Board activities, worksheets/activities, PBL (extensions)
Benchmark Assessments (used to establish baseline achievement data and measure progress towards grade level standards; given 2-3 X per year)	First Grade Science Benchmark **- given in Sept and June**

RESOURCES
● **Core instructional materials:** ○ **Lesson 1 Overview** ● **Teacher created units:** ○ **Unit 1 Lessons**
Supplemental materials: ● **Unit 1 Explorations Guide** ● **What is a Scientist?** ● **Four Seasons** ● **The Earth, Sun, Moon, and Shadows** ● **NGSS** ● Discovery Education (through Classlink) ● Core Concepts Sheet ● **BrainPop Jr.**
Modifications for Learners
See appendix

Topic/Unit 2 Title	Heredity	Approximate Pacing	January

STANDARDS
NJSLS Science

Students will be able to…	Students will know…	Crosscutting Concepts
1-LS3-1. Make observations to construct an evidence-based account that young plants and animals are like, but not exactly like, their plants.. [Clarification Statement: Examples of patterns could include featured plants or animals share. Examples of observations could include leaves from the same kind of plant are the same shape but can differ in size; and, a particular breed of dog looks like its parents but is not exactly the same.] [Assessment Boundary: Assessment does not include inheritance or animals that undergo metamorphosis or hybrids.]	**LS3.A: Inheritance of traits** ● Young animals are very much, but not exactly like, their parents. Plants also are very much, but not exactly, like their parents. (1-LS3-1) **LS3.B: Variation of Traits** ● Individuals of the same kind of plant or animal are recognizable as similar but can also vary in many ways. (1-LS3-1)	**Patterns** ● Patterns in the natural world can be observed, used to describe phenomena, and used as evidence. (1-LS3-1)

Interdisciplinary Connections:	CS & DT:
● **SL.1.3.** Ask and answer questions about what a speaker says in order to gather additional information or clarify something that is not understood. ○ *Example: Students will present their "Zonkey Projects" and students will be able to answer questions to clarify thinking.* ● **W.1.5.** With guidance and support from adults, focus on a topic, respond to questions and suggestions from peers and	**8.1.2.NI.1: Model and describe how individuals use computers to connect to other individuals, places, information, and ideas through a network.** **8.1.2.DA.3: Identify and describe patterns in data visualizations.** ● *Example: Using pictures, videos, and texts, students will research baby animals and their parents. Students will discuss and record similarities and differences in baby animals and their parents. The information learned in this unit will be used in life science throughout their education.* **8.2.2.ED.3: Select and use appropriate tools and materials to build a product using the design process**.

self-reflection, and add details to strengthen writing and ideas as needed. ○ *Example: Students will write about their animals from the "Zonkey Project" and add details after students present their animal to their classmates.*	● *Example: Students create a model of the "Zonkey" and communicate the different traits.*

CKLS:

- 9.4.2.CI.2: Demonstrate originality and inventiveness in work (e.g., 1.3A.2CR1a).
  - *Example: Students will take the information obtained throughout the unit and synthesize it to create their new animal.*
- 9.1.2.CAP.1: Make a list of different types of jobs and describe the skills associated with each job.
  - *Example: Animal traits and heredity are used in dog breeding, such as when a breeder mixes two breeds like a Yorkipoo. Scientists also look at cross pollination to create different types of plants.*

UNIT/TOPIC ESSENTIAL QUESTIONS AND ENDURING OBJECTIVES/UNDERSTANDINGS

Young animals are very much but not exactly like their parents.

STUDENT LEARNING OBJECTIVES

Key Knowledge	Process/Skills/Procedures/Application of Key Knowledge
Students will know: **Make observations to construct an evidence-based account that young plants and animals are like, but not exactly like, their plants.**	***Students will be able to:*** **Inheritance of traits** ● Young animals are very much, but not exactly like, their parents. Plants also are very much, but not exactly, like their parents. **Variation of Traits** ● Individuals of the same kind of plant or animal are recognizable as similar but can also vary in many ways.

ASSESSMENT OF LEARNING	
Summative Assessment (Assessment at the end of the learning period)	• Students will develop a model and construct an argument with evidence to explain the science behind the phenomena using the Disciplinary Core Ideas, Cross Cutting Concepts, and Science and Engineering Practices. • "Zonkey Project" - Create a picture of a new animal and be able to describe what animals were used to create it and what traits they possess.
Formative Assessments (Ongoing assessments during the learning period to inform instruction)	• Models, claims, evidence, data and research, planning and carrying out investigations, classroom discussions, anecdotal notes
Alternative Assessments (Any learning activity or assessment that asks students to *perform* to demonstrate their knowledge, understanding and proficiency)	• Discovery Education Board activities, worksheets/activities, PBL (extensions)
Benchmark Assessments (used to establish baseline achievement data and measure progress towards grade level standards; given 2-3 X per year)	First Grade Science Benchmark **- given in Sept and June**
RESOURCES	

• **Core instructional materials:**
  ○ Lesson 2 Overview
• **Teacher created units**
  ○ Unit 2 Lessons	

Supplemental materials: • Unit 2 Explorations Guide • All About Plants • NGSS • Discovery Education (through Classlink) • Core Concepts Sheet	

• **BrainPop Jr.**
Modifications for Learners
See appendix

Topic/Unit 3 Title	Molecules to Organisms	Approximate Pacing	February
STANDARDS			
NJSLS Science			

Students will be able to…	Students will know…	Crosscutting Concepts
1-LS-1: Use materials to design a solution to a human problem by mimicking how plants and/or animals use their external parts to help them survive, grow, and meet their needs. [Clarification Statement: Examples of human problems that can be solved by mimicking plant or animal solutions could include designing clothing or equipment to protect bicyclists by mimicking turtle shells, acorn shells, and animal scales; stabilizing structures by mimicking animal tails and roots on plants; keeping out intruders by mimicking thorns on branches and animal quills; and, detecting intruders by mimicking eyes and ears.] **1-LS1-2: Read texts and use media to determine patterns in behavior of parents and offspring that help offspring survive.** [Clarification Statement: Examples of patterns of behaviors could include the signals that offspring make (such as crying, chirping, and other vocalizations) and the responses of the parents (such as feeding, comforting, and protecting the offspring).] **K-2-ETS1-1. Ask questions, make observations and gather information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool.**	**LS1.A: Structure and Function** ● All organisms have external parts. Different animals use their body parts in different ways to see, hear, grasp objects, protect themselves, move from place to place, and seek, find, and take in food, water and air. Plants also have different parts (roots, stems, leaves, flowers, fruits) that help them survive and grow. (1-LS-1) **LS1.B: Growth and Development of Organisms** ● Adult plants and animals can have young. In many kinds of animals, parents and the offspring themselves engage in behaviors that help the offspring to survive. (1-LS1-2) **LS1.D: Information Processing** ● Animals have body parts that capture and convey different kinds of information needed for growth and survival. Animals respond to these inputs with behaviors that help them survive. Plants also respond to some external inputs. (1.LS1-1) **ETS1.A: Defining and Delimiting Engineering Problems**	**Patterns** ● Patterns in the natural world can be observed, used to describe phenomena, and used as evidence. (1-LS1-2) **Structure and Function** ● The shape and stability of structures of natural and designed objects are related to their function(s). (1-LS1-1) (K-2-ETS1-2) --- **Connections to Engineering, Technology and Applications of Science** **Influence of Engineering, Technology, and Science on Society and the Natural World** ● Every human-made product is designed by applying some knowledge of the natural world and is built using materials derived from the natural world. (1-LS1-1)

K-2-ETS1-2. Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem. **K-2-ETS1-3. Analyze data from tests of two objects designed to solve the same problem to compare the strengths and weaknesses of how each performs.**	● A situation that people want to change or create can be approached as a problem to be solved through engineering. (K-2-ETS1-1) ● Asking questions, making observations, and gathering information are helpful in thinking about problems. (K-2-ETS1-1) ● Before beginning to design a solution, it is important to clearly understand the problem. (K-2-ETS1-1) **ETS1.B: Developing Possible Solutions** ● Designs can be conveyed through sketches, drawings, or physical models. These representations are useful in communicating ideas for a problem's solutions to other people. (K-2-ETS1-2) **ETS1.C: Optimizing the Design Solution** ● Because there is always more than one possible solution to a problem, it is useful to compare and test designs. (K-2-ETS1-3)	

Interdisciplinary Connections:	**CS & DT:**
● **RI.1.10** With prompting and support, read informational texts appropriately complex for grade. ○ *Example: Students will read different texts about animals and their adaptations.*	8.2.2.ED.2: Collaborate to solve a simple problem, or to illustrate how to build a product using the design process. 8.2.2.ED.3: Select and use appropriate tools and materials to build a product using the design process. ○ *Example: Students use the information learned about animal body parts to create something inspired by the animals' survival adaptation.*

• **SL.1.6.** Produce complete sentences when appropriate to task and situation. ○ *Example: Students will write complete sentences about their animal, habitat, and adaptations to survive in that habitat.*	*Scientists and designers use inspiration from nature to create and invent new tools all the time.*

CLKS:

9.4.2.CI.2: Demonstrate originality and inventiveness in work (e.g., 1.3A.2CR1a).
- *Example: Students create a "beak" out of recycled materials to show how nature inspires tools*

9.4.2.CT.1: Gather information about an issue, such as climate change, and collaboratively brainstorm ways to solve the problem (e.g., K-2-ETS1-1, 6.3.2.GeoGI.2).

9.4.2.CT.2: Identify possible approaches and resources to execute a plan (e.g., 1.2.2.CR1b, 8.2.2.ED.3).

9.4.2.CT.3: Use a variety of types of thinking to solve problems (e.g., inductive, deductive)
- *Example: Students use the information learned about animal body parts to create something inspired by the animals' survival adaptation. Scientists and designers use inspiration from nature to create and invent new tools all the time.*

UNIT/TOPIC ESSENTIAL QUESTIONS AND ENDURING OBJECTIVES/UNDERSTANDINGS

Different animals use their body parts in different ways to see, hear, pick up things and move.

STUDENT LEARNING OBJECTIVES

Key Knowledge	Process/Skills/Procedures/Application of Key Knowledge
Students will know: • **Use materials to design a solution to a human problem by mimicking how plants and/or animals use their external parts to help them survive, grow, and meet their needs.**	***Students will be able to:*** **LS1.A: Structure and Function** • All organisms have external parts. Different animals use their body parts in different ways to see, hear, grasp objects, protect themselves, move from place to place, and seek, find, and take in food, water and air. Plants also have different parts (roots, stems, leaves, flowers, fruits) that help them survive and grow.

• **Read texts and use media to determine patterns in behavior of parents and offspring that help offspring survive.** • **Ask questions, make observations and gather information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool.** • **Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem.** • **Analyze data from tests of two objects designed to solve the same problem to compare the strengths and weaknesses of how each performs.**	**Growth and Development of Organisms** • Adult plants and animals can have young. In many kinds of animals, parents and the offspring themselves engage in behaviors that help the offspring to survive. **Information Processing** • Animals have body parts that capture and convey different kinds of information needed for growth and survival. Animals respond to these inputs with behaviors that help them survive. Plants also respond to some external inputs. **Defining and Delimiting Engineering Problems** • A situation that people want to change or create can be approached as a problem to be solved through engineering. • Asking questions, making observations, and gathering information are helpful in thinking about problems. • Before beginning to design a solution, it is important to clearly understand the problem. **Developing Possible Solutions** • Designs can be conveyed through sketches, drawings, or physical models. These representations are useful in communicating ideas for a problem's solutions to other people. **Optimizing the Design Solution** • Because there is always more than one possible solution to a problem, it is useful to compare and test designs.
ASSESSMENT OF LEARNING	
Summative Assessment (Assessment at the end of the learning period)	• Students will develop a model and construct an argument with evidence to explain the science behind the phenomena using the Disciplinary Core Ideas, Cross Cutting Concepts, and Science and Engineering Practices.
Formative Assessments (Ongoing assessments during the learning period to inform instruction)	• Models, claims, evidence, data and research, planning and carrying out investigations, classroom discussions, anecdotal notes

Alternative Assessments (Any learning activity or assessment that asks students to *perform* to demonstrate their knowledge, understanding and proficiency)	• Discovery Education Board activities, worksheets/activities, PBL (extensions)
Benchmark Assessments (used to establish baseline achievement data and measure progress towards grade level standards; given 2-3 X per year)	**First Grade Science Benchmark - given in Sept and June**
RESOURCES	

• **Core instructional materials:**
  ○ **Unit 3 Overview**
• **Teacher created units:**
  ○ **Unit 3 Lessons**	

Supplemental materials: • **Unit 3 Explorations Guide** • **Animal Habitats** • **NGSS** • Discovery Education (through Classlink) • Core Concepts Sheet • **BrainPop Jr.**	
Modifications for Learners	
See appendix	

Topic/Unit 4 Title	Waves	Approximate Pacing	April- Mid. May

STANDARDS

NJSLS Science

Students will be able to…	Students will know…	Crosscutting Concepts
1-PS4-1. Plan and conduct investigations to provide evidence that vibrating materials can make sound and that sound can make materials vibrate. [Clarification Statement: Examples of vibrating materials that make sound could include tuning forks and plucking a stretched string. Examples of how sound can make matter vibrate could include holding a piece of paper near a speaker making sound and holding an object near a vibrating tuning fork.] **1-PS4-2. Make observations to construct an evidence-based account that objects can be seen only when illuminated.** [Clarification Statement: Examples of observations could include those made in a completely dark room, a pinhole box, and a video of a cave explorer with a flashlight. Illumination could be from an external light source or by an object giving off its own light.] **1-PS4-3. Plan and conduct an investigation to determine the effect of placing objects made with different materials in the path of a beam of light.** [Clarification statement: Examples of materials could include those that are transparent (such as clear plastic), translucent (such as wax paper), opaque (such as a mirror).] [Assessment Boundary: Assessment does not include the speed of light.] **1-PS4-4. Use tools and materials to design and build a device that uses light or sound to solve the problem of communicating over a distance.** [Clarification Statement: Examples of devices could include a light source to send signals, paper cup and string "telephones," and a pattern of drum beats.] [Assessment Boundary: Assessment does not include technological details for how communication devices work.]	**PS4.A: Wave Properties** ● Sound can make matter vibrate, and vibrating matter can make sound. (1-PS4-1) **PS4.B: Electromagnetic Radiation** ● Objects can be seen if light is available to illuminate them or if they give off their own light. (1-PS4-2) ● Some materials allow light to pass through them, others allow only some light through and others block all the light and create a dark shadow on any surface beyond them, where the light cannot reach. Mirrors can be used to redirect a light beam. (Boundary: The idea that light travels from place to place is developed through experiences with light sources, mirrors, and shadows, but no attempt is made to discuss the speed of light.) (1-PS4-3) **PS4.C: Information Technologies and Instrumentation** ● People also use a variety of devices to communicate (send and receive information) over long distances. (1-PS4-4)	**Cause and Effect** Simple tests can be designed to gather evidence to support or refute student ideas about causes. (1-PS4-1), (1-PS4-2), (1-PS4-3) **Structure and Function** ● The shape and stability of structures of natural and designed objects are related to their function(s). (K-2-ETS1-2) --- **Connections to Engineering, Technology and**

K-2-ETS1-1. Ask questions, make observations and gather information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool. **K-2-ETS1-2. Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem.** **K-2-ETS1-3. Analyze data from tests of two objects designed to solve the same problem to compare the strengths and weaknesses of how each performs.**	**ETS1.A: Defining and Delimiting Engineering Problems** ● A situation that people want to change or create can be approached as a problem to be solved through engineering. (K-2-ETS1-1) ● Asking questions, making observations, and gathering information are helpful in thinking about problems. (K-2-ETS1-1) ● Before beginning to design a solution, it is important to clearly understand the problem. (K-2-ETS1-1) **ETS1.B: Developing Possible Solutions** ● Designs can be conveyed through sketches, drawings, or physical models. These representations are useful in communicating ideas for a problem's solutions to other people. (K-2-ETS1-2) **ETS1.C: Optimizing the Design Solution** ● Because there is always more than one possible solution to a problem, it is useful to compare and test designs. (K-2-ETS1-3)	**Applications of Science** **Influence of Engineering, Technology, and Science on Society and the Natural World** ● People depend on various technologies in their lives; human life would be very different without technology. (1-PS4-4)

Interdisciplinary Connections:	CS & DT:
● **W.1.7** Participate in shared research and writing projects (e.g., explore a number of "how-to" books on a given topic and use them to write a sequence of instructions).	8.2.2.ED.3: Select and use appropriate tools and materials to build a product using the design process. *Example: Students create instruments out of materials*

○ *Example: Students will research and write down different ways to make instruments.*	

CLKS:

9.4.2.CI.2: Demonstrate originality and inventiveness in work (e.g., 1.3A.2CR1a).
Example: Make instruments out of different household materials.
9.1.2.CAP.1: Make a list of different types of jobs and describe the skills associated with each job.
Example: Students are using materials to create a functioning instrument. Artists use recycled materials to create new things as well as inventors.

UNIT/TOPIC ESSENTIAL QUESTIONS AND ENDURING OBJECTIVES/UNDERSTANDINGS

Teacher will show and make sounds with the instruments (bell, tambourine, small drum, kazoo etc.) Instruments make sounds. Have students question the phenomena.

STUDENT LEARNING OBJECTIVES

Key Knowledge	Process/Skills/Procedures/Application of Key Knowledge
Students will know: ● **Plan and conduct investigations to provide evidence that vibrating materials can make sound and that sound can make materials vibrate.** ● **Make observations to construct an evidence-based account that objects can be seen only when illuminated.** ● **Plan and conduct an investigation to determine the effect of placing objects made with different materials in the path of a beam of light.** ● **Use tools and materials to design and build a device that uses light or sound to solve the problem of communicating over a distance.** ● **Ask questions, make observations and gather information about a situation people want to change to define a simple problem that can be solved through the development of a new or improved object or tool.**	***Students will be able to:*** **Wave Properties** ● Sound can make matter vibrate, and vibrating matter can make sound. **Electromagnetic Radiation** ● Objects can be seen if light is available to illuminate them or if they give off their own light. ● Some materials allow light to pass through them, others allow only some light through and others block all the light and create a dark shadow on any surface beyond them, where the light cannot reach. Mirrors can be used to redirect a light beam. (Boundary: The idea that light travels from place to place is developed through experiences with light sources, mirrors, and shadows, but no attempt is made to discuss the speed of light.) **Information Technologies and Instrumentation**

• **Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem.** • **Analyze data from tests of two objects designed to solve the same problem to compare the strengths and weaknesses of how each performs.**	• People also use a variety of devices to communicate (send and receive information) over long distances. **Defining and Delimiting Engineering Problems** • A situation that people want to change or create can be approached as a problem to be solved through engineering. • Asking questions, making observations, and gathering information are helpful in thinking about problems. • Before beginning to design a solution, it is important to clearly understand the problem. **Developing Possible Solutions** • Designs can be conveyed through sketches, drawings, or physical models. These representations are useful in communicating ideas for a problem's solutions to other people. **Optimizing the Design Solution** • Because there is always more than one possible solution to a problem, it is useful to compare and test designs.
ASSESSMENT OF LEARNING	
Summative Assessment (Assessment at the end of the learning period)	• Students will develop a model and construct an argument with evidence to explain the science behind the phenomena using the Disciplinary Core Ideas, Cross Cutting Concepts, and Science and Engineering Practices
Formative Assessments (Ongoing assessments during the learning period to inform instruction)	• Models, claims, evidence, data and research, planning and carrying out investigations, classroom discussions, anecdotal notes
Alternative Assessments (Any learning activity or assessment that asks students to *perform* to demonstrate their knowledge, understanding and proficiency)	• Discovery Education Board activities, worksheets/activities, PBL (extensions)
Benchmark Assessments (used to establish baseline achievement data and	First Grade Science Benchmark **- given in Sept and June**

measure progress towards grade level standards; given 2-3 X per year)	

RESOURCES

- **Core instructional materials:**
  - **Unit 4 Overview**
- **Teacher created units**
  - **Unit 4 Lessons**

Supplemental materials:

- **Unit 4 Explorations**
- **Light and Sound**
- **NGSS**
- Discovery Education (through Classlink)
- Core Concepts Sheet
- **BrainPop Jr.**

Modifications for Learners

See appendix