

Crest Memorial School Curriculum and Pacing Guide	
Grade: First Grade	Subject Area: Science
Adoption Date: August 29, 2024	Revision Date: August 2024

Mission and Vision Statements

Mission: All students will possess an understanding of scientific concepts and processes required for personal decision-making, participation in civic life, and preparation for careers in STEM fields (for those that chose).

- Vision:* Prepare students to become scientifically literate individuals who can effectively:
- Apply scientific thinking, skills, and understanding to real-world phenomena and problems;
 - Engage in systems thinking and modeling to explain phenomena and to give a context for the ideas to be learned;
 - Conduct investigations, solve problems, and engage in discussions;
 - Discuss open-ended questions that focus on the strength of the evidence used to generate claims;
 - Read and evaluate multiple sources, including science-related magazine and journal articles and web-based resources to gain knowledge about current and past science problems and solutions and develop well-reasoned claims; and
 - Communicate ideas through journal articles, reports, posters, and media presentations that explain and argue.

Integration of Technology

9.4.2.TL.2,
9.4.2.TL.6

21st Century Skills

9.4.2.CT.3,
9.4.2.IML.4

Career Education

9.1.2.CAP.1
9.2.5.CAP.1

Interdisciplinary Connection

SL.PE.2.1
SL.II.2.2

Accommodations and Modifications

Special Education

- follow 504/IEP accommodations
- create visual Science word wall with labels
- highlight and define important vocabulary
- ask yes/no questions
- allow for use of pictures in science journal with dictation support

English Language Learners

- create visual word wall with labels
- highlight and define important vocabulary
- ask yes/no questions
- allow for use of pictures in science journal with dictation support

Students At-Risk of Failure

- Allow verbalization before writing
- Use audio materials when necessary
- Read tests aloud
- Restate, reword, clarify directions
- Re-teach concepts using small groups
- Provide educational “breaks” as necessary
- Chunking content into “digestible bites”
- Shorten assignments to focus on mastery concept
- Assignment, Project, and Assessment Modification Based on Individual Student Needs
- Use mnemonic devices

Gifted and Talented

- Student Choice
- Assignment, Project, and Assessment Modification Based on Individual Student Needs

Students with 504 Plans	<ul style="list-style-type: none"> ● Allow verbalization before writing ● Use audio materials when necessary ● Read tests aloud ● Restate, reword, clarify directions ● Re-teach concepts using small groups ● Provide educational “breaks” as necessary ● Chunking content into “digestible bites” ● Shorten assignments to focus on mastery concept ● Use mnemonic devices
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Assessments	
Formative	<ul style="list-style-type: none"> ● Hands on activities ● Teacher Observation ● Discussion
Summative	<ul style="list-style-type: none"> ● Lesson Assessments ● Unit Assessments
Benchmark	<ul style="list-style-type: none"> ● Baseline science assessment
Alternative	<ul style="list-style-type: none"> ● Performance Tasks ● Projects

Pacing Guide	
Unit Title	Number of days
Unit 1-Monarch Migration	8 days
Unit 2- Animal Traits and Survival	14 days
Unit 3-Plant Traits and Survival	9 days
Unit 4-Day Patterns- Sun and Shadow	11 days
Unit 5-Moon Patterns- Moon and Stars	9 days

Unit 6- Light, Sound and Communication	15 days
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Unit Learning Goals - Unit 1
<p>Students will explore the Life Cycle of the Monarch Butterfly</p> <p>Students will learn about the Monarch Migration Journey North and South</p>

Core Instructional Materials	Supplemental Materials
<ul style="list-style-type: none"> • Monarch Butterfly- online lessons • Monarch Butterfly Journey South and North 	<ul style="list-style-type: none"> • Read Aloud Books • Classroom Easel with Chart Paper • Projects

Daily Targets	NJSLs Performance Expectations	Instructional Activities
<ul style="list-style-type: none"> • Day 1: Introduction to the Life Cycle of a Monarch Butterfly 	1-LS1-2	<ul style="list-style-type: none"> • Read aloud- The Birth of a Monarch • Create an Anchor Chart showing the Life Cycle • Watch short video- discuss • Complete a Life Cycle picture
<ul style="list-style-type: none"> • Day 2: Introduction to the Life Cycle of a Monarch Butterfly 	1-LS1-2	<ul style="list-style-type: none"> • Read aloud- The Birth of a Monarch • Create an Anchor Chart showing the Life Cycle • Watch short video- discuss • Complete a Life Cycle picture
<ul style="list-style-type: none"> • Day 3: Investigate and observe the Migration of Monarch Butterflies 	1-LS1-2	<ul style="list-style-type: none"> • Read aloud- Gotta Go Gotta Go to Mexico • Teacher led discussion • Use classroom Map and Globe to identify their Journey North and South • Introduce- Navigation • Hands on Activity- Begin making a Compass

<ul style="list-style-type: none"> ● Day 4: Investigate and observe the Migration of Monarch Butterflies 	1-LS1-2	<ul style="list-style-type: none"> ●Read aloud- Gotta Go Gotta Go to Mexico ●Teacher led discussion ● Use classroom Map and Globe to identify their Journey North and South ● Introduce- Navigation ● Hands on Activity- Begin making a Compass
<ul style="list-style-type: none"> ● Day 5: Discover the Life Span and Migratory Patterns of of each generation during a Migration 	1-LS3-1	<ul style="list-style-type: none"> ● Complete Hands on Activity- Compass ● Watch and discuss on-line video about migratory patterns and how many generations it takes to complete a Migration ●Teacher creates an Anchor chart ● Begin making a Monarch Butterfly
<ul style="list-style-type: none"> ● Day 6: Discover the Life Span and Migratory Patterns of each generation during a Migration 	1-LS3-1	<ul style="list-style-type: none"> ● Complete Hands on Activity- Compass ● Watch and discuss on-line video about migratory patterns and how many generations it takes to complete a Migration ●Teacher creates an Anchor chart ● Begin making a Monarch Butterfly
<ul style="list-style-type: none"> ● Day 7: Search for Monarch Eggs and raise to continue the Monarch Life Cycle 	1-LS1-2	<ul style="list-style-type: none"> ●Complete making their Monarch Butterfly ●Visit our Butterfly Garden to find eggs on Milkweed ●Raise the butterfly to observe the Monarch Life Cycle
<ul style="list-style-type: none"> ● Day 8: Search for Monarch Eggs and raise to continue the Monarch Life Cycle 	1-LS1-2	<ul style="list-style-type: none"> ●Complete making their Monarch Butterfly ●Visit our Butterfly Garden to find eggs on Milkweed ●Raise the butterfly to observe the Monarch Life Cycle

Inclusive concepts
<ul style="list-style-type: none"> ● Mystery Science allows for all types of learners to be fully engaged. It incorporates hands on activities, visuals, and step by step instruction that

may be paused for learners working at a slower pace.

Unit Learning Goals- Unit 2

Students will explore how the external characteristics of animals are essential for survival
 Students will make observations of parents and offspring
 Students will discover how similarities and behaviors help offspring survive

Core Instructional Materials	Supplemental Materials
<ul style="list-style-type: none"> • Read aloud texts • Mystery Science Online Portal • Mystery Pack Hands-On Materials 	<ul style="list-style-type: none"> • Science Journals • Mystery Science Unit Supplies • Classroom Easel with Chart Paper

Daily Targets	NJSLS Performance Expectations	Instructional Activities
<ul style="list-style-type: none"> • Day 1: Generate observations and questions about phenomenon 	1-LS1-2	<ul style="list-style-type: none"> • Introduce and explore anchoring phenomenon on Mystery Science (this will be worked on throughout the unit) • Mystery Science guided inquiry video- Squirrel Secrets • Discussion
<ul style="list-style-type: none"> • Day 2 :Generate observations and questions about phenomenon 	1-LS1-2	<ul style="list-style-type: none"> • Review Anchoring Phenomenon • Review guided inquiry video • Hands on activity (See, Think, Wonder sheet)
<ul style="list-style-type: none"> • Day 3: Observe and discover that baby animals share the same traits and characteristics as their of parents 	1-LS3-1	<ul style="list-style-type: none"> • Mystery Science Video- Baby Bird Rescue • Discuss the video • Begin the Hands on Activity- Identify who the baby bird belongs to based on shared traits

<ul style="list-style-type: none"> ● Day 4: Observe and discover that baby animals share the same traits and characteristics as their of parents 	1-LS3-1	<ul style="list-style-type: none"> ● Complete the Hands on Activity- Baby Bird Rescue ● Wrap up slides and teacher led discussion ● Anchor Connection- (Parent animals pass their traits onto their young) ● Complete -Assessment 1 (How to help a baby animal find their parent?)
<ul style="list-style-type: none"> ● Day 5: Investigate to determine the relationship between the shape of different bird beaks and the food they eat 	1-LS1-1	<ul style="list-style-type: none"> ● Mystery Science Video- Exploration Video showing how animals catch their food ● Discuss the video ● Begin Hands on Activity- Find the Best Beak
<ul style="list-style-type: none"> ● Day 6: Investigate to determine the relationship between the shape of different bird beaks and the food they eat 	1-LS1-1	<ul style="list-style-type: none"> ● Complete Hands on Activity (Discover that different beaks are better for different foods) ● Wrap up slides and teacher led discussion ● Anchor Connection- (Birds are not the only animal with specialized mouths.) ● Complete Assessment 2- (Match each bird with its food)
<ul style="list-style-type: none"> ● Day 7: Discover the relationship between animal behavior and offspring survival 	1-LS1-2	<ul style="list-style-type: none"> ● Introduce and listen to the video book- The Ducks in Grandmom’s Pond ● Discuss why baby ducks follow their mother ● Students pretend to be a duck ● Begin the Hands on Activity- What’s Going On Videos?
<ul style="list-style-type: none"> ● Day 8: Discover the relationship between animal behavior and offspring survival 	1-LS1-2	<ul style="list-style-type: none"> ● Complete the Hands on Activity (Watch videos and discover ways parents help their offspring) ● Teacher - led discussion ● Anchor Connection-(Mother animals sometimes carry babies in their mouth inorder to move them quickly and safely) ● Complete Assessment 3-(Draw and write- Animal mother’s help their young by___)
<ul style="list-style-type: none"> ● Day 9: Discover why camouflage is helpful to the survival of animals 	1-LS1-1	<ul style="list-style-type: none"> ● Watch the video- Moth Hide and Seek ● Student’s test ability to find hidden moths

		<ul style="list-style-type: none"> ● Begin Hands on Activity- Design a Camouflage pattern for a moth
<ul style="list-style-type: none"> ● Day 10: Discover why camouflage is helpful to the survival of animals 	1-LS1-1	<ul style="list-style-type: none"> ● Complete Hands on Activity- Designing Camouflaged Moth ● Wrap up slides and teacher led discussion ● Anchor Connection (Squirrels are camouflaged in many ways to protect themselves for survival) ● Assessment 4- (Match the animals to where it would blend in best)
<ul style="list-style-type: none"> ● Day 11: Discover the connection of inheritance and why family members look alike 	1-LS3-1	<ul style="list-style-type: none"> ● Read along mystery book- Big Ears ● Discuss the connection that people and animals look like their family ● Students explore by acting out how animals move ● Begin Hands on Activity- Match Up Game
<ul style="list-style-type: none"> ● Day 12: Discover the connection of inheritance and why family members look alike 	1-LS3-1	<ul style="list-style-type: none"> ● Complete Hands on Activity- Match up Game ● Teacher led discussion ● Anchor Connection- (Baby animals look and ACT similar to their parents) ● Assessment 5- (Draw and write how a baby animal is similar to its parents)
<ul style="list-style-type: none"> ● Day 13: Observe and interpret the behavior of different animals to see how they care for their offspring 	1-LS1-2	<ul style="list-style-type: none"> ● Complete Unit Review- Performance Task ● Begin Hand on Activity- (Identity 3 different animals and their homes)
<ul style="list-style-type: none"> ● Day 14: Observe and interpret the behavior of different animals to see how they care for their offspring 	1-LS1-2	<ul style="list-style-type: none"> ● Complete Hands on Activity ● Teacher led discussion (share similarities and differences between a Chipmunk, Gray Squirrel and Burrowing Owl)

Inclusive concepts

- Mystery Science allows for all types of learners to be fully engaged. It incorporates hands on activities, visuals, and step by step instruction that may be paused for learners working at a slower pace.

Unit Learning Goals- Unit 3

Students will explore the different parts of plants and how those parts are essential for plant survival

Core Instructional Materials	Supplemental Materials
<ul style="list-style-type: none"> ● Read aloud texts ● Mystery Science Online Portal ● Mystery Pack Hands-On Materials 	<ul style="list-style-type: none"> ● Science Journals ● Mystery Science Unit Supplies ● Classroom Easel with Chart Paper

Daily Targets	NJSLS Performance Expectations	Instructional Activities
<ul style="list-style-type: none"> ● Day 1: Generate observations and questions about phenomenon 	1-LS1-1 1-LS3-1	<ul style="list-style-type: none"> ● Introduce and explore anchoring phenomenon on Mystery Science (this will be worked on throughout the unit) ● Mystery Science Guided Inquiry Video- (Large floating objects found in ponds around the world) ● Teacher led discussion
<ul style="list-style-type: none"> ● Day 2: Generate observations and questions about phenomenon 	1-LS1-1 1-LS3-1	<ul style="list-style-type: none"> ● Review Anchoring Phenomenon ● Review Guided Inquiry Video ● Hands on activity (See, Think, Wonder sheet)
<ul style="list-style-type: none"> ● Day 3: Identify the pattern that young plants are similar to their parent plants 	1-LS3-1	<ul style="list-style-type: none"> ●Mystery Science Video- Explore and observe 3 different seedling plants ● Begin Hands on Activity-(Mixed up plants- look for clues to match plants to their adult counterpart) ●Discuss the video

<ul style="list-style-type: none"> ● Day 4: Identify the pattern that young plants are similar to their parent plants 	1-LS3-1	<ul style="list-style-type: none"> ● Complete Hands on Activity ● Wrap up slides and teacher led discussion ● Anchor Connection-(Looking closely at the large floating objects in the pond- we discover they are large leaves) ●Assessment 1- (Connect each seedling to its adult plant)
<ul style="list-style-type: none"> ● Day 5: Examine structures like roots, branches and leaves that keep trees from blowing down 	1-LS1-1	<ul style="list-style-type: none"> ●Mystery Science Video- (Why don't trees blow down in the wind?) ●Discuss the video ●Begin Hands on Activity-(Create their own wind proof umbrella)
<ul style="list-style-type: none"> ●Day 6: Examine structures like roots, branches and leaves that keep trees from blowing down 	1-LS1-1	<ul style="list-style-type: none"> ●Complete Hands on Activity (tree inspired wind proof umbrella) ●Wrap up slides and teacher led discussion ●Anchor Connection- (Giant Lily leaves can support themselves because of the veins- just like the ribs in an umbrella) ●Assessment 2- Write 1 reason trees don't fall down in the wind.
<ul style="list-style-type: none"> ● Day 7: Observe and discover that plants respond to light by bending toward the light source 	1-LS1-1	<ul style="list-style-type: none"> ● Read along and discuss digital book-(Sunshine and Flowers) ● Students pretend to be a sunflower turning faces to the sun ● Teacher led discussion ● Hands on Activity-Draw a Sunflower bending toward the sun
<ul style="list-style-type: none"> ● Day 8:Observe and discover that plants respond to light by bending toward the light source 	1-LS1-1	<ul style="list-style-type: none"> ●Complete Hands on Activity - ●Anchor Connection- (The Giant Lily leaves gather lots of sunlight from very bright places all over the world) ●Assessment 3- (Draw 2 things that flowers need to grow and 2 parts of a flower)

<ul style="list-style-type: none"> • Day 9: Gather information about a new species of a Water Lily Plant 	1-LS1-1	<ul style="list-style-type: none"> • Complete the Unit Review- Mystery Science video • Students will compare and contrast the differences between the large and tiny water lily plants • Teacher led discussion • Performance Task Hands on Activity- Draw a Tiny Water Lily
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Inclusive concepts

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Unit Learning Goals- Unit 4

Students will make observations of the sun and shadows throughout a day and across seasons
 Students will use observations to understand patterns across a day

Core Instructional Materials

- Read aloud texts
- Mystery Science Online Portal
- Mystery Pack Hands-On Materials

Supplemental Materials

- Science Journals
- Mystery Science Unit Supplies
- Classroom Easel with Chart Paper

Daily Targets

• Day 1: Generate observations and questions about phenomenon

NJSLS Performance Expectations

1-ESS1-1

Instructional Activities

- Introduce and explore anchoring phenomenon on Mystery Science (this will be worked on throughout the unit)
- Mystery Science guided inquiry video- (Observe a set of strange shadows moving in a mysterious way)

		<ul style="list-style-type: none"> • Discussion
<ul style="list-style-type: none"> • Day 2: Generate observations and questions about phenomenon 	1-ESS1-1	<ul style="list-style-type: none"> • Review Anchoring Phenomenon • Review Guided Inquiry Video • Hands on activity (See, Think, Wonder sheet)
<ul style="list-style-type: none"> • Day 3: Investigate what it takes to make a stationary object's shadow move 	1-ESS1-1	<ul style="list-style-type: none"> • Explore Mystery Science Video- Moving Shadows • Begin Hands on Activity- Use flashlights and paper gnomes to discover and explore how moving the position of a light makes the shadow move
<ul style="list-style-type: none"> • Day 4: Investigate what it takes to make a stationary object's shadow move 	1-ESS1-1	<ul style="list-style-type: none"> • Complete Hands on Activity • Wrap up slides and teacher led discussion • Anchor Connection- (The sun appears to continually move across the sky everyday) • Assessment 1- (Identify where a woman's shadow is on a picture and then draw where the sun is located)
<ul style="list-style-type: none"> • Day 5: Discover what your shadow does when you aren't looking 	1-ESS1-1	<ul style="list-style-type: none"> • Read along and discuss digital book- Shadow Play • Students act out the movements of shadows with their bodies • Teacher begins tracing the shadow of the children with chalk- observe the changes throughout the day
<ul style="list-style-type: none"> • Day 6: Discover what your shadow does when you aren't looking 	1-ESS1-1	<ul style="list-style-type: none"> • Finish tracing all the shadows of the children to observe throughout the day • Teacher led discussion • Assessment 2- (Match shadows to the time of the day you would see them paper)
<ul style="list-style-type: none"> • Day 7: Develop a model of the sun's daily 	1-ESS1-1	<ul style="list-style-type: none"> • Explore Mystery Science Video- (How to

path across the sky to learn how the sun helps you if you are lost		use the sun as a pathway) <ul style="list-style-type: none"> • Discuss the video •Begin Hands on Activity- Create a Sun Finder
<ul style="list-style-type: none"> • Day 8: Develop a model of the sun’s daily path across the sky to learn how the sun helps you if you are lost 	1-ESS1-1.	<ul style="list-style-type: none"> • Complete Hands on Activity- Sun Finder • Wrap up slides and teacher led discussion • Anchor Connection- (The sun is higher in the sky East and lower in the sky West. We can use the sun to help guide our direction) •Assessment 3- (Sunset, Sunrise and draw how the sun moves during the day)
<ul style="list-style-type: none"> • Day 9: Discover why days get longer and shorter throughout the year 	1-ESS1-2.	<ul style="list-style-type: none"> • Read along and discuss digital book- Time for Bed • Discuss why children need to go to bed earlier in the summer • Hands on Activity- Students act out a bedtime routine
<ul style="list-style-type: none"> •Day 10: Discover why days get longer and shorter throughout the year 	1-ESS1-2.	<ul style="list-style-type: none"> • Hands on Activity- Summer Sunshine Reader • Teacher led discussion • Anchor Connection- (We can use the location of the sun to tell the time of the day) •Assessment 4 - (Match the season to how long the days are)
<ul style="list-style-type: none"> • Day 11: Observe and predict the apparent location of the sun in the sky at different times of the day 	1-ESS1-1.	<ul style="list-style-type: none"> • Performance Task Unit Review • Mystery Science Video- Where will the sun be tomorrow? • Hands on Activity- Complete paper showing where the sun would be in the morning, lunch and evening • Teacher led discussion

Inclusive concepts

- Mystery Science allows for all types of learners to be fully engaged. It incorporates hands on activities, visuals, and step by step instruction that may be paused for learners working at a slower pace.

Unit Learning Goals- Unit 5

Students explore the Moon and the stars
 Students observe and record the appearance of the Moon to determine its cyclical pattern
 Students discover why stars are only visible at night

Core Instructional Materials	Supplemental Materials
<ul style="list-style-type: none"> ● Read aloud texts ● Mystery Science Online Portal ● Mystery Pack Hands-On Materials 	<ul style="list-style-type: none"> ● Science Journals ● Mystery Science Unit Supplies ● Classroom Easel with Chart Paper

Daily Targets	NJSLS Performance Expectations	Instructional Activities
<ul style="list-style-type: none"> ● Day 1: Generate observations and questions about phenomenon 	1-ESS1-1.	<ul style="list-style-type: none"> ● Introduce and explore anchoring phenomenon on Mystery Science (this will be worked on throughout the unit) ● Mystery Science guided inquiry video- (Moon Mysteries) ● Discussion
<ul style="list-style-type: none"> ● Day 2: Generate observations and questions about phenomenon 	1-ESS1-1.	<ul style="list-style-type: none"> ● Review Anchoring Phenomenon ● Review Guided Inquiry Video ● Hands on activity (See, Think, Wonder sheet)
<ul style="list-style-type: none"> ● Day 3: Explore all the different shapes of the moon that can appear on different nights 	1-ESS1-1.	<ul style="list-style-type: none"> ● Explore Mystery Science Video-(When can you see the Full Moon?) ● Discuss the video ● Begin Hands on Activity- My Moon Book

		(observe photos of the moon over the course of 4 weeks and draw pictures of the moon)
<ul style="list-style-type: none"> • Day 4: Explore all the different shapes of the moon that can appear on different nights 	1-ESS1-1.	<ul style="list-style-type: none"> • Complete Hands on Activity- My Moon Book- use moon patterns and shape to determine when the next full moon will be • Wrap up slides and teacher led discussion • Anchor Connection- (Photos of the moon can help us track how the shape of the moon changes) •Assessment 1- (Complete the pattern of the moon by drawing the next phase)
<ul style="list-style-type: none"> • Day 5: Investigate why the stars are visible at night but disappear when the sun comes out 	1-ESS1-1	<ul style="list-style-type: none"> • Explore Mystery Science Video-(Why Stars Come Out at Night?) • Discuss the video • Begin Hands on Activity- Make a Star Projector
<ul style="list-style-type: none"> • Day 6: Investigate why the stars are visible at night but disappear when the sun comes out 	1-ESS1-1	<ul style="list-style-type: none"> • Complete Hands on Activity- Model stars. Students use paper cups to project stars and observe what happens to stars when a flashlight acts as the sun • Wrap up slides and teacher led discussion • Anchor Connection- (Stars are only visible at night because they aren't bright enough to be visible during the day. The Moon is bright enough to be seen both day and night) • Assessment 2- Draw and write about why you can't see stars during the day
<ul style="list-style-type: none"> • Day 7: Discover Stars and Seasonal Patterns 	1-ESS1-1	<ul style="list-style-type: none"> • Read along and discuss digital book- Follow the North Star • Discuss the book and its meaning • Imagine what they might see through a telescope • Label classroom N-S-E-W (Complete Optional Activity- Where is North?)

<ul style="list-style-type: none"> ● Day 8: Discover Stars and Seasonal Patterns 	1-ESS1-1	<ul style="list-style-type: none"> ● Review digital book ● Review the North Star and Big Dipper ● Teacher led discussion ● Anchor Connection- (The Sun is a predictable pattern) ● Assessment 3- Draw to find the North Star using the pattern in the stars of the Big Dipper
<ul style="list-style-type: none"> ● Day 9: Predict when the Sun, Moon and Stars will be visible in the Sky 	1-ESS1-1	<ul style="list-style-type: none"> ● Performance Task Unit Review ● Mystery Science Video- When Can We See the Moon, Sun and Stars? ● Hands on Activity- Complete paper showing What can see things in the Sky? ● Teacher led discussion

Inclusive concepts

● Mystery Science allows for all types of learners to be fully engaged. It incorporates hands on activities, visuals, and step by step instruction that may be paused for learners working at a slower pace.

Unit Learning Goals- Unit 6

Students will investigate light and sound
 Students will explore how materials vibrate and how vibrating materials make sound

Core Instructional Materials

- Read aloud texts
- Mystery Science Online Portal
- Mystery Pack Hands-On Materials

Supplemental Materials

- Science Journals
- Mystery Science Unit Supplies
- Classroom Easel with Chart Paper

Daily Targets	NJSL Performance Expectations	Instructional Activities
<ul style="list-style-type: none"> Day 1: Generate observations and questions about phenomenon 	1-PS4-1 1-PS4-2 1-PS4-3 1-PS4-4	<ul style="list-style-type: none"> Introduce and explore anchoring phenomenon on Mystery Science (this will be worked on throughout the unit) Mystery Science guided inquiry video- (Everglades Adventure) Discussion
<ul style="list-style-type: none"> Day 2: Generate observations and questions about phenomenon 	1-PS4-1 1-PS4-2 1-PS4-3 1-PS4-4	<ul style="list-style-type: none"> Review Anchoring Phenomenon Review Guided Inquiry Video Hands on activity (See, Think, Wonder sheet)
<ul style="list-style-type: none"> Day 3: Investigate vibrations as a source of sound effects for movies 	1-PS4-1	<ul style="list-style-type: none"> Explore Mystery Science Video-(How do they make silly sounds in cartoons?) Discuss the video Begin Hands on Activity- (Be a Sound Effect Artist)
<ul style="list-style-type: none"> Day 4: Investigate vibrations as a source of sound effects for movies 	1-PS4-1	<ul style="list-style-type: none"> Complete Hands on Activity- Use rulers, hands and feet to create vibrations and sounds Wrap up slides and teacher led discussion Anchor Connection- (Objects that make sounds are done so by vibrating) Assessment 1- (Draw and write 2 ways people make sounds for cartoons)
<ul style="list-style-type: none"> Day 5: Explore sounds made by different kinds of instruments Discover what happens when vibrations stop and start 	1-PS4-1	<ul style="list-style-type: none"> Read along and discuss digital book- Where do sounds come from? Discuss Hands on Activity- Students experiment with a piece of paper to make connections between a sound and vibration
<ul style="list-style-type: none"> Day 6: Explore sounds made by different kinds of instruments 	1-PS4-1	<ul style="list-style-type: none"> Complete Hands on Activity- Head Harp (make a simple musical instrument with

<p>Discover what happens when vibrations stop and start</p>		<p>string and hands)</p> <ul style="list-style-type: none"> • Teacher led Discussion • Anchor Connection- Some vibrations can be heard and seen. (Discuss the alligator's body) • Assessment 2- Draw and write about how a musical instrument makes sound
<ul style="list-style-type: none"> • Day 7: Observe and consider materials from the prospective of how much light they let through 	<p>1-PS4-3</p>	<ul style="list-style-type: none"> • Explore Mystery Science Video-(What if there were no windows?) • Discuss the video • Begin Hands on Activity- (Begin making a paper stained glass)
<ul style="list-style-type: none"> • Day 8: Observe and consider materials from the prospective of how much light they let through 	<p>1-PS4-3</p>	<ul style="list-style-type: none"> • Complete Hands on Activity- (Paper stained Glass) • Wrap up slides and teacher led discussion • Anchor Connection- (Some Animals in the Everglade are silent, but in the total darkness they can be seen) • Assessment 3- Identify the meaning of transparent, translucent and opaque. What would happen if there weren't any transparent materials?
<ul style="list-style-type: none"> • Day 9: Observe that objects can be seen only when they are illuminated Discover if it is possible to see in the dark 	<p>1-PS4-2</p>	<ul style="list-style-type: none"> • Read along and discuss digital story- Light Up the Dark • Discuss the story and meaning • Hands on Activity- Create a Dark Box to experience seeing in the dark
<ul style="list-style-type: none"> • Day 10: Observe that objects can be seen only when they are illuminated Discover if it is possible to see in the dark 	<p>1-PS4-2</p>	<ul style="list-style-type: none"> • Review digital book • Teacher led discussion • Anchor Connection- (In order to see objects they must be illuminated. Most things need external light. Fireflies make their own light) • Assessment 4- Identify the source of light in the picture.

<ul style="list-style-type: none"> • Day 11: Practice using light to communicate a message 	<p>1-PS4-4 K-2-ETS1-2</p>	<ul style="list-style-type: none"> • Explore Mystery Science Video-(How could you send a secret message to someone far away?) • Discuss the video • Begin Hands on Activity- (Secret Signals- Students work in pairs to build a device to communicate over distance)
<ul style="list-style-type: none"> • Day 12: Practice using light to communicate a message 	<p>1-PS4-4 K-2-ETS1-2</p>	<ul style="list-style-type: none"> • Complete Hands on Activity- (Send secret messages to one another using light and colored markers) • Wrap up slides and teacher led discussion • Anchor Connection- (Discuss alligators use sound and fireflies use light to communicate. Humans use both.) • Assessment 5- Draw and write one way to send a message far away.
<ul style="list-style-type: none"> • Day 13: Discover how light and sound help communicate over long distances 	<p>1-PS4-4</p>	<ul style="list-style-type: none"> • Read along and discuss digital story- Gabrielle and the Tugboat • Discuss the story and meaning • Hands on Activity- Students get moving by pretending to be a boat. Play Sound and sight Games
<ul style="list-style-type: none"> • Day 14: Discover how light and sound help communicate over long distances 	<p>1-PS4-4</p>	<ul style="list-style-type: none"> • Complete Hands on Activity- (Continue Sound and Sight Games) • Wrap up slides and teacher led discussion • Anchor Connection- (Discuss how to send a message without seeing a person) • Assessment 6- Draw and write one way to send a message with sound
<ul style="list-style-type: none"> • Day 15: Explain the cause and effect relationship behind what they see and hear 	<p>1-PS4-1 1-PS4-2</p>	<ul style="list-style-type: none"> • Performance Task Unit Review • Mystery Science Video- What do we see and hear in the Everglades at night? • Teacher led discussion •

Inclusive concepts

- Mystery Science allows for all types of learners to be fully engaged. It incorporates hands on activities, visuals, and step by step instruction that may be paused for learners working at a slower pace.