Science Pacing Guide Grade 1 2021-22
See NJSLS Science.

Grade 1 / Science / Unit # 1 Physical Science-Waves and their Applications in Technologies for Information Transfer			
Time Frame	**Content Focus**	**Skill Focus**	**Standards**
Sept	Accessing Online Materials	Show how to login and navigate Google Classroom in order to follow links to: - View Mystery Science activities/videos - Watch assigned videos/read alouds if working remotely or independently	
Oct/ Nov	Sound Encourage students to explore books on sound and light. Pull out books on instruments, shadows, the sun, etc.	**-Plan and conduct investigations** to provide evidence that vibrating materials can make sound and that sound can make materials vibrate.	1-PS4-1 K-2-ETS1-1
	Light Travel	**-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	1-PS4-2 1-PS4-3 K-2-ETS1-1

	Communication Using sound and 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.	1-PS4-4 K-2-ETS1-1

Formative Assessment Plan	Summative Assessment Plan
● Vocabulary assessment with QR codes or Kahoot! ● Observation ● Discussion ● Participation ● Test	● Build an instrument with STEAM supplies to test and make different kinds of sounds. ● Written Lab Forms ● Make communication devices using random materials in the classroom. Create and Test. ● Plan and conduct an investigation to determine the effect of placing objects made with different materials in the path of a beam of light. Materials can be: ○ Transparent (clear plastic, glass) ○ Translucent (wax paper, thin cloth) ○ Opaque (cardboard, construction paper) ○ Reflective (a mirror, a shiny metal spoon) ● Use tools and materials to design and build a device that uses light or sound to solve the problem of communicating over a distance
Main Resources	**Supplementary Resources**
● Leveled Guided Reading Books	● Smartboard/computers ● YouTube

• Mystery Science (Lights & Sounds Lessons)	• Epic Books • Bookflix

Unit 1 Appendix

Grade 1 / Science / Unit # 2 Earth and Space Science-Earth's Place in the Universe			
Time Frame	**Content Focus**	**Skill Focus**	**Standards**
Jan/ Feb	Sun, Moon and Stars Review nonfiction text features in books about planets, stars and the solar system. Help students identify important facts vs interesting facts.	**-Use observations** of the sun, moon, and stars to describe patterns that can be predicted. **-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.	1-ESS1-1 K-2-ETS1-1
	Seasons Review nonfiction text features in books about seasons. Help students identify important facts vs interesting facts Explore fiction books that are set in different seasons.	**-Make observations** at different times of year to relate the amount of daylight to the time of year. **-Ask questions, make observations, and gather information** about a situation people want to change to define a simple problem	1-ESS1-2 K-2-ETS1-1

		that can be solved through the development of a new or improved object or tool.	
	Day and Night Provide books that explore how activities differ from day to night.	**Make observations** at different times of year to relate the amount of daylight to the time of year. **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.	1-ESS1-2 K-2-ETS1-1

Formative Assessment Plan	Summative Assessment Plan
• Vocabulary assessment with QR codes or Kahoot! • Observations • Discussion • Participation • Test	• Review Sheets • Class Discussions • Students will make different phases of the moon, Draw a constellation, Make a dark box to explore constellations and light, explore shadows • Investigate using STEAM activities • Written Lab forms
Main Resources	**Supplementary Resources**
• Mystery Science (Spinning Sky lessons) • Read Grade Level texts	• Smartboard/computers • YouTube • *My Moon Book* • Bill Nye; The Moon • Book Flix

Unit 2 Appendix

Grade 1 / Science / Unit # 3 Life Science-From Molecules to Organisms: Structure and Processes			
Time Frame	**Content Focus**	**Skill Focus**	**Standards**
April/ May	Plant/Animal Offsprings Help students select NF and/or F animal books (to be used for animal reports). How do they determine if it is NF or F.	-**Read texts and use media** to determine patterns in behavior of parents and offspring that help offspring survive	1-LS1-2 K-2-ETS1-2
	Plant/Animal Coverings Showcase books about different plants.	-**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 -**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.	1-LS1-1 1-LS3-1 K-2-ETS1-2

Unit 3- Life Science-Heredity: Inheritance and Variation of Traits

April/ May	Inheritance & Variation of Traits	**-Make observations** to construct an evidence-based account that young plants and animals are like, but not exactly like, their parents.	1-LS3-1

Formative Assessment Plan	Summative Assessment Plan
● Vocabulary assessment with QR codes or Kahoot! ● Observation ● Discussion ● Participation ● Test	● Review Sheets ● Class Discussions ● Investigate using STEAM Activities: make camouflage moths, Test wind effects, how do plants respond to light ● Written Lab forms
Main Resources	**Supplementary Resources**
● Read Alouds ● Mystery Science (Plant & Animal Superpowers Lessons) ● Read Grade Level texts	● YouTube ● Smartboard/computers ● Bookflix ● Epic books

Unit 3 Appendix