First Grade Science Curriculum Connections

Physical Science

State Standard(s) and Practices	Objectives	FOSS/EIE Kits	Journeys Connection	Writing	Other Resources
1-PS4-1 Plan and conduct investigations to provide evidence that vibrating materials can make sound and that sound can make materials vibrate.	Students will: • Understand that sound can make matter vibrate. • Understand that vibrating matter can make sound.	**PHYSICS and SOUND**	**Unit 2, Week 8** How is music part of your everyday life?	• Make a drum (using directions from Journey's story). Have students make different size drums and compare. Place sand on drum and hit. Observe and write what happens.	
1-PS4-2 Make observations to construct an evidence-based account that objects in darkness can be seen only when illuminated.	Students will: • Discover objects can be seen if light is available to illuminate them. • Observe objects can be seen if they give off their own light.			• Collect a group of objects and have students predict which give off their own light (glow stick, flashlight, glow in the dark ball, etc.). Test predictions in a dark area.	
1-PS4-3 Plan and conduct investigations to determine the effect of placing objects made with different materials in the path of a beam of light.	Students will: • Understand 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. • Understand mirrors can be used to redirect a light beam.			• Collect transparent, translucent and opaque materials (plastic wrap, wax paper, and aluminum foil). Make and test predictions. • Give partners a flashlight and small mirror to explore redirecting 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.	Students will: • Understand people use a variety of devices to communicate (send and receive information) over long distances.			• Plan and experiment with a simple communication device (cup and string).	

Life Science					
State Standard(s) and Practices	**Objectives**	**FOSS/EIE Kits**	**Journeys Connection**	**Writing**	**Other Resources**
1-LS1-1 Use materials to design a solution to a human problem by mimicking how plants and/or animals use their external parts to survive, grow, and meet their needs.	Students will: • Identify how animals use their body parts in different ways to see, hear, grasp objects, protect themselves, move from place to place and take in food, water, and air.		**Unit 2, Week 7** How do animals communicate?	• Draw or write how an animal uses a body part. Then draw or write how you do that same activity. (an elephant hugs with its truck; you use your arms)	
	Students will: • Understand all organisms have external parts.		**Unit 3, Week 15** What makes birds different from mammals?	• Make a Venn Diagram to compare a bird and a mammal.	
	Students will: • Discover plants also have different parts (roots, stems, leaves, flowers, fruit) that help them survive and grow.		**Unit 5, Week 21** What grows in a garden?	• Draw and label a plant. • Extension: plant seeds in class, keep observation journal.	
1-LS1-2 Read texts and use media to determine patterns in behavior of parents and offspring that help offspring survive.	Students will: • Understand many animal parents and offspring engage in behaviors that help the offspring to survive.		**Unit 5, Week 22** Why do some animals have spots or stripes?	• Write about how a mother animal cares for her young.	
1-LS1-3 Make observations to construct an evidence-based account that young plants and animals are like, but not exactly like, their parents.	Students will: • Observe individuals of the same kind of plant or animal are recognizable as similar, but can also vary in many ways.		**Unit 5, Week 24** What happens to a tree as it grows?	• Draw and write about a tree throughout its life. (seed, seedling, young tree, mature tree)	

Earth Science

State Standard(s) and Practices	Objectives	FOSS/EIE Kits	Journeys Connection	Writing	Other Resources
1-ESS1-1 Use observations of the sun, moon, and stars to describe patterns that can be predicted.	Students will: • Identify patterns of the motion of the sun, moon, and stars in the sky, which can be observed, described, and predicted.	**AIR and WEATHER** Investigation 4, part 3	**Unit 4, Lesson 16** What do astronauts do?	• Write a letter from space describing the things you can see, the tools you use and the patterns you notice.	
1-ESS1-2 Make observations at different times of the year to relate the amount of daylight to the time of year.	Students will: • Understand that seasonal patterns of the sunrise and sunset can be observed, described, and predicted.		**Unit 3, Week 13** What changes do the different seasons cause?	• Graph the sunrise and sunset times during calendar. Write down observations.	

Engineering and Technology

State Standard(s) and Practices	Objectives	FOSS/EIE Kits	Journeys Connection	Writing	Other Resources
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 tool.	Students will: • Define a situation that people want to change and approach it as a problem to be solved through engineering. • Ask questions, make observations, and gather information that can be helpful in thinking about problems. • Design a solution after clearly understanding the problem.		**Unit 4, Lesson 17** What are some different ways to travel?	• Imagine you are on Lewis and Clark's journey. You come to a large river. Write about how will you get across.	

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.	Students will: • Express designs can be conveyed through sketches, drawings, or physical models. • Understand these representations are useful in communicating ideas for a problem's solutions to others.			• Give groups of students the same set of materials (tape and paper, marshmallows and toothpicks) and a task to build something (bridge, tower). Have groups write about and compare designs.	
K-2-ETS1-3 Analyze data from tests from two objects designed to solve the same problem to compare the strengths and weaknesses of how each performs.	Students will: • Understand there is always more than one possible solution to a problem. It is useful to compare and test designs.	Compare different kitchen utensils, strainers, and lemon juicers	**Unit 1, Week 3** Why is going to school important?	• Draw or write to compare something in schools then and now. (chalk and pencils, walking and riding the bus)	

Journeys Lesson	Science Connection
Unit 1, Week 3	K-2-ETS-3
Unit 2, Week 7	1-LS1-1
Unit 2, Week 8	1-PS4-1
Unit 3, Week 11	1-ESS1-2
Unit 3, Week 15	1-LS1-1
Unit 4, Week 16	1-ESS1-1
Unit 4, Week 17	K-2-ETS-1
Unit 5, Week 21	1-LS1-1 *(plants)*
Unit 5, Week 22	1-LS1-2
Unit 5, Week 24	1-LS1-3