Fifth Grade Science Curriculum Connections

Physical Science

Standard(s) and Practices	FOSS/EIE Kits	Journeys Connection	Target Skill and Ideas	Other Resources
Matter and Its Interactions **5-PS1-1.** Develop a model to describe that matter is made of particles too small to be seen. • Evaporation and Dissolving	**FOSS Kit: MIXTURES and SOLUTIONS:** • Investigation 1, part 1 Making and Separating Mixtures • Investigation 1, part 2 Separating a Salt Solution • Investigation 1, part 4 Separating a Dry Mixture	• Unit 3 • Unit 6 Lesson 27 Cave of the Crystals Story	• Opinion Writing: Should they keep pumping out the water?	• Mystery Science Website Mystery 2: Particulate Nature of Matter Could you transform something worthless into gold?
Matter and Its Interactions **5-PS1-2.** Measure and graph quantities to provide evidence that regardless of the type of change that occurs when heating, cooling, or mixing substances, the total weight of matter is conserved.	**FOSS Kit: MIXTURES and SOLUTIONS:** • Investigation 4, part 3 Reactions in a Bag *(teachers will need to do an extension and weigh the water first, the bag with chemicals, before and after the reaction occurs)*			• Mystery Science Website Mystery 5: Gases and Particulate Nature of Matter Why do some things explode?
Matter and Its Interactions **5-PS1-3**. Make observations and measurements to identify materials based on their properties.	**FOSS Kit: MIXTURES and SOLUTIONS:** • Investigation, part 1 Making and Separating Mixtures • Investigation, part 3 Observing Crystals	• Unit 1, Lesson2 • Unit 6, Lesson 27	• Descriptive Writing Sensing the Cave	• Mystery Science Website Mystery 4: Chemical Reactions What do fireworks, rubber, and silly putty have in common?
Matter and Its Interactions **5-PS1-4.** Conduct an investigation to determine whether the mixing of two or more substances results in new substances	**FOSS Kit: MIXTURES and SOLUTIONS:** • Investigation 4, part 1 Chemical Reactions • Investigation 4, part 3 Reactions in a Bag	• Unit 2, Lesson 8	• Cause and Effect Writing	• Mystery Science Website Mystery 4: Chemical Reactions What do fireworks, rubber, and silly putty have in common?

Motion and Stability Forces and Interaction **5-PS2-1.** Support an argument that the gravitational force exerted by Earth on objects is directed down.	NA	• Unit 1, Lesson 1 • Unit 2, Lesson 8 A Package for Mrs. Jewels • Questioning Gravity	• Cause and Effect Writing	
Energy **5-PS3-1.** Use models to describe that energy in animals' food *(used for body repair, growth, motion, and to maintain body warmth)* was once energy from the sun. • Photosynthesis, food chains, food pyramids	**FOSS Kit:** **ENVIRONMENTS:** ● Investigation 1, part 1 Setting Up Terrariums ● Investigation 3, part 1 and 3 *(Extensions are needed to tie in photosynthesis. Example: plant 1 extra containers and put one in a cupboard away from any light)*	• Unit 1, Lesson 2 • Unit 2, Lesson 8 & 10 • Leveled Reader- *Sharks*	• Cause and Effect Writing • Descriptive Writing	
Life Science				
Standard(s) and Practices	**FOSS Kit/EIE Kits**	**Journeys Connection**	**Target Skill and Ideas**	**Other Resources**
From Molecules to Organisms: Structures and Processes **5-LS1-1**. Support an argument that plants get the materials they need for growth chiefly from air and water.	**FOSS Kit:** **ENVIRONMENTS:** ● Investigation 1, part 1 Setting Up Terrariums ● Investigation 3, part 1 and 3 *(Extensions are needed to tie in photosynthesis. Example: plant 1 extra containers and put one in a cupboard away from any light)*	• Thinking Inside the Box: Designing Plant Packages • Unit 2, Lesson 8 Everglades Forever	• Research report on a plant.	• Mystery Science Website Mystery 2: Matter Cycle, Food Chain What do plants eat?
Ecosystems-Interactions, Energy and Dynamics **5-LS1-2.** Develop a model to describe the movement of matter among plants, animals, decomposers, and the environment. ● Animals only survive in environments that meet their needs. ● Stable web of life ● Invasive species ● Life cycle	**FOSS Kit:** **ENVIRONMENTS:** ● Investigation 1, part 1 Setting Up Terrariums ● Investigation 1, part 1, 2, and 3 Making Animal Runways *(with planning and prep this can be completed in two 30-minute class periods)* ● Investigation 4, part 1 Goldfish Aquariums ● Investigation 4, part 2 Acid in the Water	• Unit 2, Lesson 6 • Leveled Reader Mad for Marsupials! • Lesson 10 Cougars, Big Cats • Lesson 8 • Leveled Reader Mangrove Swamp, The Salton Sea • Unit 6, Lesson 26 Animals on the Move	• Research report on a plant or animal. • Poetry about animals using similes. • Narrative Writing	• Mystery Science Website Mystery 3: Decomposers and Matter Cycle Where do fallen leaves go?

	• Investigation 5, part 1, 2, and 3 Brine Shrimp Hatching *(with planning and prep this can be completed in two 30-minue class periods)*			
Earth and Space Science				
Standard(s) and Practices	**FOSS/EIE Kits**	**Journeys Connection**	**Target Skill and Ideas**	**Other Resources**
Earth's Place in the Universe **5-ESS1–1**. Support an argument that the apparent brightness of the sun and stars is due to their relative distances from the earth.	NA	• Unit 4	• Personal Narrative: Journal about a Trip through Space	• Mystery Science Website Mystery 1: Day, Night, and Earth's Rotation Why does the sun rise and set? • Mystery 2: Earth's Rotation and Time Who set the first clock?
Earth's Place in the Universe **5-ESS1–2**. Represent data in graphical displays to reveal patterns of daily changes in length and direction of shadows, day and night, and the seasonal appearance of some stars in the night sky.	NA	• Unit 4 Trade Book About Time		• Mystery Science Website Mystery 3: Seasons and Earth's Revolution Why do the stars change with the seasons? • Mystery 4: Seasonal Changes and Sun's Path How can the sun tell you the season?
Earth's Systems **5-ESS2-1**. Develop a model using an example to describe ways the geosphere, biosphere, hydrosphere, and/or atmosphere interact • Four spheres effects on oceans, ecosystems, organisms, landforms, and climate. • How do the 4 spheres interact	**FOSS Kit: ENVIRONMENTS** • Investigation 1, parts 1 and 2 Terrestrial Environments • This standard in regards to the biosphere links to **5-LS1-2** • This standard in regard to the atmosphere links to **5-LS1-1** • This standard in regards to the hydrosphere links to **5-PS1-1** **EIE Kit: Just Passing Through: Designing Model Membranes**	• Unit 5, Lesson 21 Wild Weather • Unit 6, Lesson 29	• Journal Writing about traveling through the Spheres	

Earth's Systems **5-ESS2-2**. Describe and graph the amounts and percentages of water and fresh water in various bodies of water to provide evidence about the distribution of water on earth. • Most water is located in the oceans. • Most freshwater is underground or in glaciers.	**EIE Kit: Water, Water Everywhere: Designing Water Filters**			• Mystery Science Website Mystery 1: Water on Earth's Surface How much water is in the world? • Mystery 2: Water as a Natural Resource When you turn on the faucet, where does the water come from?
Earth and Human Activity **5-ESS3-1**. Obtain and combine information about ways individual communities use science ideas to protect the Earth's resources and environment.	NA	• Unit 4, Lesson 20 The Black Stallion & Horse Power • Unit 2, Lesson 6 Quest for Tree Kangaroo • Leveled Readers Kangaroos and On the Trail of Rain Forest Wildlife • Lesson 8 Leveled Reader America's Urban Parks • Lesson 10 Leveled Reader The Return of the Yellowstone Grizzly, Saving the Mexican Wolves • Unit 3, Lesson 13-15	• Persuasive Letter or Essay	• Mystery Science Website Mystery 1: Food Chains, Predators, Herbivores and Carnivores Why would a hawk move to New York City?

Engineering and Technology Science

Standard(s) and Practices	FOSS/EIE Kits	Journeys Connection	Target Skill and Ideas	Other Resources
Engineering Design **5-ETS1-1**. Define a simple design problem reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost.	**EIE Kit: A Slick Solution: Cleaning an Oil Spill**			

Engineering Design **5-ETS1-2.** Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.	**EIE Kit: Marvelous Machines: Making Work Easier**	● Unit 2, Lesson 7 ● Unit 3, Lesson 12 ● Unit 4, Lesson 17 ● LAFFF and from Dreams to Reality ● Leveled Readers Robot Rescue and The Watch Girl	● Compare and Contrast ● Problem and Solution	
Engineering Design **5-ETS1-3**. Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved	**FOSS Kit: VARIABLES INVESTIGATION SWINGERS, and LIFEBOATS**	Unit 2, Lesson 6 Unit 4 Trade Book About Time	How-To	