



Story Tracking:

Episode:	Script Number:	Logline:	Question:	Story Lead:	Sec Chrs:	Setting:	Learning Goal(s):
101A The Town Picnic	101	Elinor and her friends help Mrs. Gorilla by figuring out how to make her ketchup less goopy, just in time to feed the hungry customers at the annual town picnic.	How can we make the ketchup flow?	Featured friend- Ari	Ranger Rabbit, Mrs. Gorilla, Alejandro Possum	Town Picnic	LS3a: Observe ways that animals and plants get what they need to live and grow. (How bees make honey from nectar) ND3: Understand that structures and materials in the natural world can be used or can inspire the engineering of structures with similar function in the designed world. (Goopiness of the honey inspires the solution to goopiness of the ketchup) SEP1a: Demonstrate curiosity about the greater world outside of their local environment. (Elinor is curious about the bee and how it makes honey) SEP3e: Design and build a solution to a simple problem (add water to the goopy ketchup) SEP6a: Use background knowledge experiences, and data to construct reasonable explanations and theories of natural

							phenomena. (They understand the honey's goopiness)
101B The Amazing Expandable Clubhouse	102	Elinor and her friends run into trouble when so many kids join their club that there's no more room in the Clubhouse.	How does a snail always seem to fit even when the snail grows bigger?	Ensemble	Camilla, Goat Twins (in unison), Tito	Clubhouse	SEP1. Asking questions and defining problems. SEP5. Using mathematics and computational thinking SEP3. Planning and carrying out investigations SEP4. Analyzing and interpreting data SEP: Design solutions (engineering) LS4. Understand that all animals and plants have a life cycle, can reproduce, and change and grow over time ND3. (RTL Crosscutting concept 'Structure and Function') Understand that structures and materials in the natural world can be used or can inspire the engineering of structures with similar function in the designed world. ENGINEERING GOALS: Begin to use the five elements of the Engineering Design Process: Define a problem, Imagine and Plan, Create, Test, and Improve • Begin to understand that engineering is a collaborative process during which ideas can be exchanged and shared with others while defining a problem and working to design, test and revise a solution
102B Owl Girl	103	Elinor learns that some animals have a different schedule	Why do owls sleep during the day?	Ensemble	Ms. Mole, Ranger Rabbit, Mr. Raccoon, Owl	NIGHT Elinor's Bedroom, School	LS2 Begin to explore how different external features of an animal help it survive in its environment. Elinor learns that an Owl has certain characteristics that help it survive at night. SEP2: Developing and using models SEP8 Obtaining, evaluating and communicating information - o Obtain information through discussing prior knowledge and observations with experts including teachers or knowledgeable adults - o Use basic science and engineering content vocabulary when

							investigating and describing observable phenomena o Share findings and explanations (correct or incorrect) through a variety of methods
103A The Science of Staying Warm	104	Hazel wants to play outside in the snow with Ari and Elinor, but she doesn't want to put on her winter wear.	Why do animals have fur?	Featured Friend - Olive	Olive's Mom, Sally Beaver	SNOW hill, Hazel House	SEP6. Constructing Explanations. Look for and describe patterns and relationships in natural phenomena. LS2. Understand that animals have different body parts that are used in different ways to meet their needs and that plants have different parts that help them survive and grow. ND1. (RTL Crosscutting concept 'Patterns') Understand that modes of life in the natural world and engineered solutions in the designed world have common patterns, and engineers often look to natural patterns for inspiration.
103B The Seed of an Idea	105	Elinor and her friends try to solve the mystery of why Ari's watch strap only sticks to certain objects.	How does Ari's watch stick to things?	Ensemble	Ms. Mole	School	
102A Hiding in Plain Sight	106	With their keen eyesight, the goat twins are <i>too</i> good at hide and go seek, so Elinor and her friends have to figure out a better way to hide.	How can we hide so that we're harder to find?	Ensemble	Tito, Camilla, Olivia, Sophia	School	Constructing Explanations (science) and Designing Solutions (engineering) - o Use background knowledge experiences, and data to construct reasonable explanations and theories of natural phenomena (may not be scientifically correct, rather naïve theories) (science) - o Look for and describe patterns and relationships in natural phenomena (science) - o Use and apply productive science discourse to support an explanation (e.g., think out loud, revise and rethink) - o Use evidence to support a theory (science) or solution to a problem (engineering)

							LS2. Understand that animals have different body parts that are used in different ways to meet their needs – Animals have different shapes, patterns and colors to help them blend in with their surroundings and “hide”.
104A The House that Ants Built	107	Elinor, Hazel, and Ari disagree about the best way to build a couch cushion castle.	How can tiny ants build such large anthills?	Ensemble		Elinor's Home	SEP1b. Ask more complex questions about observable phenomena. SEP?. Begin to understand that engineering is a collaborative process during which ideas can be exchanged and shared with others while defining a problem and working to design, test, and revise a solution. <i>Engineering standards from the PBS framework as suggested by Sara.</i> LS4. Begin to understand that animals and plants depend on other living things and nonliving things in the environment to meet some of their needs. ND3. (RTL Crosscutting concept ‘Structure and Function’) Understand that structures and materials in the natural world can be used or can inspire the engineering of structures with similar function in the designed world.
104B Special Places	108	When Ari misplaces the group’s favorite ball, they discover that he needs a system for keeping track of his things.	Why do birds lay eggs in nests and dogs bury bones in the ground?	Featured Friend - Ari	Mr. Dog	Ari's Home	LS5.Begin to understand that animals and plants depend on other living things and nonliving things in the environment to meet some of their needs. The bird, beaver and dog all depend on their environment to provide a place to store important things and keep them safe. ND. None in this one. SEP3: Planning and carrying out investigations: e: Design and build a solution to a simple problem (they make a special place to keep the ball after observing a nest, a beaver’s lodge, and a hole for dog bones.)

105B Look What I Can Do	109	As Elinor and her class explore playing soccer, her observations about how plants in the surrounding forest are all good at different things, much like how her classmates are all good at different soccer skills, helps Elinor find the perfect place for herself in the game.	Why are there so many different kinds of plants?	Ensemble	Sally, Ms. Mole, Goat Twins	Soccer Field, School	SEP7. Engaging in argument from evidence: a. Engage in discussions before, during, and after investigations. b. Support thinking and argue ideas with evidence. LS8. - Begin to understand that there are many different kinds of living things and how they may be the same or different. Sara's clarification: Diversity of Life: Different living things have different characteristics that allow them to function in their environment. It's a good thing we all don't have all the same form and function because then we could not have a healthy system. Elinor notices how the diversity of plants in the forest and how their forms and functions help other plants. Then she relates this observation to the different soccer skills of her friends and how that diversity helps her soccer team.
105A The Tomato Drop	110	Elinor and friends build a parachute to help a tomato land gently.	What makes some things fall slowly?	Ensemble	Lamb Family, Goat Twins, Farmer Bear, Mrs. Gorilla	Park	LS2. Understand that animals have different body parts that are used in different ways to meet their needs, and that plants have different parts that help them survive and grow: Elinor will notice how Ari's wings help him glide slowly to the ground, and that the shapes of the dandelion fluff, leaf and feather help them fall more slowly. ND3. (RTL Crosscutting concept 'Structure and Function'): Understand that structures and materials in the natural world can be used or can inspire the engineering of structures with similar function in the designed world. Elinor and her friends will design a little parachute to "catch the air" the way they have observed Ari's wings, the dandelion fluff, the leaf and the feather all do.

							SEP 1. Asking Questions. d.) Identify a problem (how to drop a tomato without damaging it) that can be solved by the design of a new or improved object or tool. SEP 3. Planning and carrying out investigations. b.) Compare and contrast objects and events by describing similarities and differences in detail. Elinor and her friends will drop items through the air and compare the speed of their descent, to find out what causes some objects to fall slowly and apply that to their problem.
106A The Lizard Lounge	111	The kids learn that lizards use the sun to warm themselves.	Why do lizards sit in the sun?	Ensemble	Ranger Rabbit	Trail	LS3. Understand that all animals need food in order to live and grow, that they get their food from plants or from other animals, and that plants and animals need water and light to live and grow: Elinor will observe that the lizard needs sunshine. ND4. (RTL Crosscutting concept 'Flows, Cycles, and Conservation'): Appreciate the way that elements in the natural world change, interact and are re-used, and how we can organize our designed world to better fit and care for the environment. Elinor will rearrange the rocks and other natural things in the park to create the Lizard Lounge. SEP1b: Ask more complex questions about observable phenomena [They ask why the lizards are choosing this rock specifically] SEP3b: Compare and contrast objects and events by describing similarities and differences in detail [comparing the feeling of shade and sun] SEP6a: Use background knowledge experiences, and data to construct reasonable explanations and theories of natural phenomena [The kids hypothesize why the lizards sit on that rock]

							SEP7: Engaging in argument from evidence [Elinor reminds them that lizards only sit on rocks during the day] SEP8b: Obtain information using various age-appropriate texts, text features, and other media to help answer a question and/or support an explanation [Hazel looks up lizards]
106B Feathers	112	The kids learn that birds' feathers help them fly, keep warm, and make a statement.	Why do birds have feathers?	Featured Friend - Ari	Ms. Mole	School	LS2d: Explore how different external features of an animal help it survive in its environment (The function of birds' feathers) ND2: Begin to understand that systems developed in our world often work in similar ways to systems found in the natural world (feathers and clothes work in similar ways) SEP1a: Demonstrate curiosity about the greater world outside of their local environment [why do birds have feathers?] SEP2: Distinguish between a model and the actual object, process, and/or events it represents [the sandcastle drawing vs actual sandcastle] SEP4a: a. Collect, describe, and record observations in greater detail and in various ways
107A Bird Song	113	The kids learn that birds sing to communicate with each other.	Why do birds sing?	Ensemble	Mr. Rabbit, Ranger Rabbit	Elinor's Home	LS3: a. Observe ways that animals and plants get what they need to live and grow. Elinor will observe the ways the birds use songs to communicate in order to get what they need. ND2. (RTL Crosscutting concept 'Systems'): Begin to understand that systems developed in our world often work in similar ways to systems found in the natural world. Elinor will use the system of bird calls to design a communication system for herself and her friends. SEP1: To be determined at Outline
107B No Need to Shout	114	Elinor needs to communicate with the	How do you communicate if you can't talk?	Ensemble	Mr. Dog	Cheer Competition	SEP – To be determined at outline.

		cheerleading team, but she's lost her voice.					(LS8) Begin to understand that there are many different kinds of living things and how they may be the same or different: a. Observe and describe similarities and differences across different types of plants and animals. Elinor and her friends observe there are many different ways to communicate. (ND2). (RTL Crosscutting concept 'Systems'): Begin to understand that systems developed in our world often work in similar ways to systems found in the natural world.
108B Elinor Stops the Squish	115	Elinor worries that the cupcake Hazel is bringing for Joe Mouse's birthday will get squished, so she comes up with a nature-inspired way to protect it.	How do plants and animals protect themselves?	Ensemble	Ranger Rabbit, Rowdy, Lola, Mrs. Gorilla, Joe Mouse	Trail	SEP – To be determined at outline. LS2 - Understand that animals have different body parts that are used in different ways to meet their needs, and that plants have different parts that help them survive and grow. Elinor observes the tough skin and shells of animals and plants that protect them. ND3. Understand that structures and materials in the natural world can be used or can inspire the engineering of structures with similar function in the designed world. Elinor and her friends make a cupcake carrier out of a coconut!
108A Mz. Mole's Glasses	116	When Ms. Mole leaves her glasses behind at school, Elinor, Hazel and Ari track her down to return them, and discover that Ms. Mole relies on other senses to get around.	How can Ms. Mole get around without her glasses?	Ensemble	Ms. Mole	School, Market	SEP – To be determined at outline. LS - LS2. Understand that animals have different body parts that are used in different ways to meet their needs, and that plants have different parts that help them survive and grow: a. Identify body parts of animals and their function ND – ND3 (RTL Crosscutting Concept – 'Structure and Function'): Understand that structures and materials in the natural world can be used or can inspire the engineering of structures with similar function in the designed world.

109A Speed Racer	117	When Elinor wants her wagon to move faster, she changes its shape with a little inspiration from aerodynamic animals.	How can she get her wagon to move faster?	Ensemble	Camilla		· Begin to understand that animals and plants depend on other living things and nonliving things in the environment to meet some of their needs (LS5). · Understand that structures and materials in the natural world can be used or can inspire the engineering of structures with similar function in the designed world (ND3). · SEP – to be determined at Outline.
109B One of these Goats	118	Elinor helps their new substitute teacher tell the Goat Twins apart		Ensemble	Mr. Hamster, Goat Twins	School	· SEP – To be determined at outline. · Understand that individuals can be similar or different. (LS6). · Understand that modes of life in the natural world have patterns. (ND1).
110B Ari's Cousin	119	Ari's cousin is coming to town and he needs Elinor and Hazel's help to find her. Only one problem... he doesn't know what she looks like!	How can we help Ari identify his cousin?	Featured Fried - Ari	Ari's Cousin, Ms. Gorilla		● SEP – To be determined at outline. ● Begin to understand that there are many different kinds of living things and how they may be similar or different. (LS8).
111A Leave it to Ari	120	Elinor learns that the forest does its own composting.	Who rakes the leaves in the forest?	Ensemble	Ari's Dad	Ari's House, Forest	LS5. Begin to understand that animals and plants depend on other living things and nonliving things in the environment to meet some of their needs: (Elinor realizes the plants in the forest and the garden depend on the composting leaves for some of their food) ND – None?
110A Feed the Birds	121	Elinor and her friends build a birdfeeder for her friend Chicky the chickadee by using things they find in the house.	How do birds find food in the winter?	Ensemble	Ranger Rabbit	Elinor's House	LS3. Understand that all animals need food in order to live and grow, that they get their food from plants or from other animals: Elinor will observe the birds foraging for food ND3. (RTL Crosscutting concept 'Structure and Function'): Understand that structures

							and materials in the natural world can be used or can inspire the engineering of structures with similar function in the designed world. Elinor designs a bird feeder that looks and functions like the tree where she observed the Chickadee was storing her seeds. SEP: TBD at Outline.
111B Snow Friend	122	How can I make the snow stickier?	How can I make the snow stickier?	Ensemble	Ranger Rabbit	Elinor's House	ES1. Understand that the Earth is made up of a variety of natural materials. a. Explore and describe the characteristics of earth materials such as sand, rocks, soil, water, and air b. Explore water and other Earth materials during play using simple tools. (Elinor and her friends explore the characteristics of snow and water.) SEP6. Constructing explanations (science) and Designing Solutions (engineering) a. Use background knowledge experiences, and data to construct reasonable explanations and theories of natural phenomena (science) b. Look for and describe patterns and relationships in natural phenomena (science) c. Use and apply productive science discourse to support an explanation d. Use evidence to support a theory or solution to a problem (engineering) (Elinor knows that the weather has gotten colder (from the temperature), and she and her friends figure out this means the snow has less water in it, and theorize that adding water will make it stickier.)
113A Backyard Soup	123	Elinor learns that different plants grow in different environments.	Why are the plants different at my grandparents' house?	Elinor	Grandparents	Elinor's Grandparent s House, Desert	LS 5c: Recognize that each kind of living things has a habitat that has resources to meet its unique needs [Elinor learns that different habitats support different plants]

							- ND. Understand that modes of life in the natural world and engineered solutions in the designed world have common patterns, and engineers often look to natural patterns for inspiration. [The soup is inspired by the natural plants in the local habitat] - SEP: TBD in Outline
112A Wind in the Web	124	Elinor and her friends learn from Nature what catches and doesn't catch the wind when they volunteer to put up a big sign for the town park concert.	Why are spiderwebs full of holes?	Ensemble		Park	LS5b. Identify the habitats of familiar animals and plants in the environment [Spiders live in spider webs ND3. (RTL Crosscutting concept 'Structure and Function'): Understand that structures and materials in the natural world can be used or can inspire the engineering of structures with similar function in the designed world. [They engineer the sign to have wind holes to mimic the spider web]. SEP: To be determined at Outline
112B The Pokey Plant	125	Elinor brings home a cactus and learns what makes it cool.	Why do cacti have thorns?	Ensemble	Ms. Mole	School	LS1a; Identify and describe the physical characteristics of a variety of animals and plants [they note how the cactus looks different from other plants] LS2d: Explore how different external features of an animal help it survive in its environment [a cactus has thorns to protect its water] SEP – TBD at Outline
115A The Paper Trail	126	When Elinor and her friends run out of drawing paper, they follow the 'paper trail' backwards, from the store, to the mill, to a forest – and learn where paper really comes from.	Where can we get more paper?	Elinor	Mr. Beaver	Paper mill	ES 3a) Ask questions about and discuss examples of how humans use Earth's resources (including soil and water) to meet their needs ES 3c) Participate in simple activities to care for the environment (Elinor and her friends discover that we use trees to make paper, and help to plant trees to replace the ones they've cut down) ND 4 (RTL Crosscutting concept 'Flows, Cycles, and Conservation'): Appreciate the way that elements in the natural world change, interact and are re-used, and how we can organize our designed world to

							better fit and care for the environment. (Elinor and her friends come to understand the importance of replacing the trees we use).
114A Bubble House	127	Inspired by a spittle-bug Elinor, Olive and Ari make their own sticky, gooey bubble stuff.	What kind of liquid makes a good bubble?	Ensemble	Mr. Rabbit	Elinor's Backyard	- LS5. Begin to understand that animals and plants depend on other living things and nonliving things in the environment to meet some of their needs: a. Distinguish between living and nonliving things based on background knowledge and b. Identify the habitats of familiar animals and plants in the environment c. Recognize that each kind of living things has a habitat that has resources to meet its unique needs (Elinor and her friends observe the spittle-bug, noting that the bug is alive and that it made the bubbles around it using sticky sap from the tree.) - ND3. (RTL Crosscutting concept 'Structure and Function'): Understand that structures and materials in the natural world can be used or can inspire the engineering of structures with similar function in the designed world. [Elinor and her friends are inspired by the spittle bug's sticky bubbles to make sticky bubble stuff of their own] - SEP: TBD in Outline
114B The Syrup Tree	128	The kids learn what tree sap is and help Farmer Bear make enough maple syrup for Pancake Sunday.	Why do trees make sap?mo	Ensemble	Farmer Bear	Farmer Bears Farm	LS2b Understand that animals have different body parts that are used in different ways to meet their needs, and that plants have different parts that help them survive and grow. (b) Identify the basic parts of plants and their function. [The kids learn that trees use sap to move stuff around inside.]

							ET1b Define a simple problem that can be solved through the design of a new or improved tool or technology [The kids design an improved delivery system] ND3. (RTL Crosscutting concept ‘Structure and Function’): Understand that structures and materials in the natural world can be used or can inspire the engineering of structures with similar function in the designed world. [The kids use the branching-tree structure as inspiration for the branching-stream sap delivery system.] SEP: TBD at outline
115B Bath Time	129	When Ari decides to stop bathing, it’s up to his friends, Ms. Mole, and his own increasing itchiness to convince him to resume.	Why are baths important?	Ensemble	Ari’s House, School	Mr and Mrs Bat,	· Begin to understand that animals and plants depend on other living things and nonliving things in the environment to meet some of their needs (LS5). · Appreciate that events are connected to each other via cause and effect and that similar links can be found in the natural and designed worlds (ND5). · Analyzing and interpreting data: Use the five senses and simple tools to gather and record data (SEP4). · Constructing explanations: Use background knowledge, experiences, and data to construct reasonable explanations and theories of natural phenomena (SEP6).
113B Colorful and Tasty	130	The kids learn that flowers are colorful and aromatic to attract bees and find ways to draw	How do flowers attract bees?	Ensemble	Elinor’s House		Curriculum Goals: · LS1b: Record observations about an animal’s or plant’s physical appearance

		customers to their bake sale table.					[they notice that flowers are colorful and smell nice] - ND1. (RTL Crosscutting concept ‘Patterns’): Understand that modes of life in the natural world and engineered solutions in the designed world have common patterns, and engineers often look to natural patterns for inspiration. [The kids copy the plant’s solution for attracting bees in order to attract cupcake customers] - SEP: TBD at outline
116A Make Music Naturally	131	Elinor wants to find a way to make music with Sr. Tapir.	How can we make our own musical instruments?	Ensemble		Senior Tapir	Curriculum Goals: SEP – To be determined at outline. LS1. Understand that all living things have external parts a. Identify and describe the physical characteristics of a variety of animals and plants b. Record observations about an animal’s or plant’s physical appearance. (Elinor and her friends observe plants and animals that make rhythmic sounds.) ND3. Understand that structures and materials in the natural world can be used or can inspire the engineering of structures with similar function in the designed world. (Elinor and her friends make percussion instruments inspired by what they’ve observed.)
116B Light the Way	132	Elinor and her friends are having a camping sleepover in the backyard, but when they get too loud, they need to find a new way to communicate so they don’t keep everyone awake.	How can we talk in the dark without making noise?	Ensemble	Elinor’s backyard, tent	Ranger Rabbit	Curriculum Goals: SEP – To be determined at outline. LS2: Understand that animals have different body parts that are used in different ways to meet their needs. (Elinor and her friends observe the flashing abdomens of the fireflies) ND2: Begin to understand that systems developed in our world often work in similar ways to systems found in the natural world.

							(After being inspired by the fireflies, Elinor and her friends decide to communicate with their flashlights).
117A These Sneezes	133	Elinor and her friends are trying to make a birdhouse but run into trouble when they start sneezing.	Why do we sneeze?	Ensemble - Olive	Elinor's Bacyard	Mr. Rabbit	Curriculum Goals: SEP – To be determined at outline. LS2 - Understand that animals have different body parts that are used in different ways to meet their needs, and that plants have different parts that help them survive and grow: a) Identify body parts of animals and their function. (Elinor discovers that sneezes help stop unwanted things from getting breathed into your nose.)
117B Ari's Lucky Shirt	134 Ari's Lucky Coat	When a baby snake in the care of Ranger Rabbit loses its skin, Elinor and friends try to help before learning that shedding skins is just a part of growing for snakes.	Why did this snake lose its skin?	Ensemble - Ari	Soccer Field	Ranger Rabbit	LS2: Understand that all animals have different body parts that are used in different ways to meet their needs, and that plants have different parts to help them survive and grow. ND1: Understand that modes of life in the natural world and engineered solutions in the designed world have common patterns, and engineers often look to natural patterns for inspiration. - SEP: To be determined at outline
118A Follow that Rollie Pollie	135	The Explorers' Club wants to explore some place really cool, and they end up exploring under a log.	Where do Pill Bugs live?	Ensemble	Forest, Explorers Club		LS5. Begin to understand that animals and plants depend on other living things and nonliving things in the environment to meet some of their needs: ES3. Understand that things people do to live comfortably can affect the world around them, but they can make choices that reduce their impacts on the land, water, air, and other living things: ND4. (RTL Crosscutting concept 'Flows, Cycles, and Conservation'): Appreciate the way that elements in the natural world change, interact and are re-used, and how we can organize our designed world to better fit and care for the environment.

							SEP: TBD at outline
118B Rain, Rain Don't Go Away	136	Disappointed that the rain has ruined their cloud gazing, the kids investigate where the rain goes to understand why it rains.	Why does it have to rain?	Ensemble	Field, Pond		ES 1 Earth Science Core Ideas ES1. Understand that the Earth is made up of a variety of natural materials. a. Explore and describe the characteristics of earth materials such as sand, rocks, soil, water, and air.
119B Thinking About Blinking	137	After Ari loses a staring contest, it's up to him and his friends to learn everything about blinking.	Why do we blink?	Ensemble - Ari	Playground, Forest	Koa	LS2. Understand that animals have different body parts that are used in different ways to meet their needs, and that plants have different parts that help them survive and grow: a. Identify body parts of animals and their function b. Identify the basic parts of plants and their function c. Compare how the external body parts of animals and plants are the same and/or different d. Explore how different external features of an animal help it survive in its environment SEP: TBD at Outline.
119A Water You Doing?	138	Elinor discovers that putting some rocks into a stream can affect where the water flows and things that live in the water.	Where did the pool of water go?	Ensemble	Stream		- SEP – To be determined at outline. - LS5. Begin to understand that animals and plants depend on other living things and nonliving things in the environment to meet some of their needs - ND5. (RTL Crosscutting concept 'Cause and Effect'): Appreciate that events are connected to each other via cause and effect, and that similar links can be found in the natural and designed worlds.
120B Elinor's Circus	139	When Elinor and her friends put on a 'circus', they struggle to master balancing tricks - until they observe how using different body parts can help you balance.	<i>How can we keep from falling over?</i>	Ensemble	Playground	Philbert	LS 2 Understand that animals have different body parts that are used in different ways to meet their needs. d. Explore how different external features of an animal help it survive in its environment.

							ND3. (RTL Crosscutting concept ‘Structure and Function’): Understand that structures and materials in the natural world can be used or can inspire the engineering of structures with similar function in the designed world.
120A Butterfly Babies	140	When the kids go searching for baby butterflies in the park, they’re surprised to discover that caterpillars turn into butterflies.	What do baby butterflies look like?	Ensemble	Park		LS3. Understand that all animals need food in order to live and grow, that they get their food from plants or from other animals, and that plants need water and light to live and grow. LS4. Understand that all animals and plants have a life cycle, can reproduce, and change and grow over time. LS7. Understand that young animals and young plants are very much, but not exactly like their parents. LS8. Begin to understand that there are many different kinds of living things and how they may be the same or different. SEP: TBD at outline
121A Zig Zag Plant	141	Elinor is intrigued when she and her friend find a plant that has grown in a zig-zag.	Do plants grow straight up towards the sky?	Ensemble	School	Mz. Mole	· LS1b: Record observations about an animal’s or plant’s physical appearance [they record the shape of the plants] · LS3. Understand that all animals need food in order to live and grow, that they get their food from plants or from other animals, and that plants need water and light to live and grow: - o a. Observe ways that animals and plants get what they need to live and grow [They grow up!] - o c. Help care for living things at home or in the classroom [they take care of plants in their classroom] · ND.
122B Butterfly Drinks	142	Elinor loves her butterfly suit, but how is she supposed to drink when her arms are now wings?	How do butterflies drink from flowers?	Ensemble		Mr. Rabbit	· LS2. Understand that animals have different body parts that are used in different ways to meet their needs, and that plants have different parts that help them survive and grow:

							· a. Identify body parts of animals and their function [They learn how butterflies have long straw-like mouths] · LS3. Understand that all animals need food in order to live and grow, that they get their food from plants or from other animals, and that plants need water and light to live and grow: · a. Observe ways that animals and plants get what they need to live and grow [Butterflies drink from flowers using their straw-like mouths] ND3. (RTL Crosscutting concept ‘Structure and Function’): Understand that structures and materials in the natural world can be used or can inspire the engineering of structures with similar function in the designed world. [Straws are like an butterfly (or elephant) proboscis]
122A Frozen Fish	143	When the lake freezes, Elinor and her friends grow concerned for all of the fish, but with Farmer Bear’s help, they learn that even “frozen” lakes have liquid water underneath, and the fish are okay.	How do fish survive in a frozen pond?	Ensemble	Lake	Ranger Rabbit	LS5c. Recognize that each kind of living thing has a habitat that has resources to meet its unique needs. (Fish can live in the lake even though the surface freezes.) SEP1a. Demonstrate curiosity about the greater world outside of their environment. (Elinor and her friends wonder how fish survive the freeze.) SEP1c. Ask and/or identify cause-and-effect questions that can be answered by an investigation. (Elinor and her friends ask whether the freeze harmed the fish, and they attempt to observe what’s happening under the ice.) SEP6a. Use background knowledge, experiences, and data to construct reasonable explanations and theories of natural phenomena. (Based on what they know about the progression of seasons, Elinor and her friends theorize about what has happened to the fish.) SEP7b. Support thinking and argue ideas with evidence. (Elinor and her friends realized that

							the fish must be okay because the lake froze over last winter, and it was still full of fish in the spring.)
122B Pirate Treasure	144	While playing pretend pirates in the forest, Olive forgets where she buried their treasure. With the help of Philbert Squirrel, they learn how to use landmarks and make a map to find it.	How can we find our lost pirate treasure?	Ensemble	Forest	Philbert Squirrel	LS5: Begin to understand that animals depend on other living things in the environment to meet their needs (Philbert teaches them that squirrels use landmarks to find things they've hidden). LS1: Record observations about a plant's physical appearance. (Elinor and her friends illustrate what features make a landmark unique and mark them on a map). ES: Understand that maps show where things are located. Develop a model (drawing, map, diorama, etc.) to represent the shapes and kinds of landforms (hills, valleys, riverbanks, dunes) and bodies of water (streams, lakes, ponds, rivers, oceans) in an area. (Olive draws a map that includes landmarks. NOTE: this is not in our core curriculum but was suggested for inclusion by PBS) ES1: Explore and describe the characteristics of earth materials such as sand, rocks, soil, water and air (as above). SEP2: Developing and using models, using simple models to support explanations (Olive makes a map to illustrate the locations of the landmarks and treasure).
123A Burrowing Owl Girl	145	Elinor thinks she knows everything there is to know about owls until, while visiting her grandparents, she meets a Burrowing Owl.	What kind of owl is awake in the daytime and lives on the ground?	Elinor	Bibi and Baba's House	Bibi and Baba	LS6. Understand that individuals of the same kind of plant or animal are recognizable as similar but can also vary in many ways: a. Contrast individuals of the same kinds of plant and animal

							(Elinor compares and contrasts what she knows about Owls with what she observes about Burrowing Owls). SEP3. Planning and carrying out investigations a. Identify and use a greater variety of tools to extend the senses for observing, measuring, and recording data about objects and events b. Compare and contrast objects and events by describing similarities and differences in detail d. With guidance, plan and conduct simple investigations using simple tools (Elinor and her grandmother plan and execute an investigation into Burrowing Owls using binoculars, a notebook and a Guidebook). SEP4. Analyzing and interpreting data a. Collect, describe, and record observations in greater detail and in various ways b. Use the 5 senses and simple tools to gather and record data d. Talk about and reflect on what happened during an investigation or when solving a problem, and why it might have happened. (Elinor and her grandmother collect data about the Burrowing Owl through sight and sound and, with research and discussion, decide if it is an Owl).
123B Olive's Tree	146	When Olive's favorite tree falls over, her friends try to figure out how this could have happened, but the answer may be more complicated than they thought.	Why did Olive's favorite tree fall down?	Ensemble	Forest	Ranger Rabbit	- LS4. Understand that all animals and plants have a life cycle, can reproduce, and change and grow over time. (Elinor and her friends trace the life cycle of an apple tree). - ND4: Appreciate the way that elements in the natural world change, interact and are re-used.(Elinor and her friends observe the ways the apple tree was used in the past (for shade, for climbing, for apples – and

							the way it is used now that it's fallen – as a home for forest creatures). - SEP 1: Asking questions (science) c. Ask and/or identify cause and effect questions that can be answered by an investigation. (Elinor and her friends investigate why the tree fell.) - SEP 6: Constructing explanations (science) a. Use background knowledge experiences, and data to construct reasonable explanations and theories of natural phenomena (science) (Elinor and her friends conclude that the tree fell because it was old and diseased). SEP 7: Engaging in argument from evidence a. Engage in discussions before, during, and after investigations b. Support thinking and argue ideas with evidence (Elinor and her friends theorize as they examine the evidence around and including the fallen tree).
Speedy Swimming	147	When the kids see Ranger Rabbit swimming speedily in the local lake, they take inspiration from a duck's webbed feet and learn why fins can help them swim fast.	Why do ducks have webbed feet?	Ensemble	Lake	Mr. Rabbit	- LS2c: Compare how the external body parts of animals and plants are the same and/or different. [The kids compare their feet to the webbed feet of aquatic animals.] - LS2d: Explore how different external features of an animal help it survive in its environment. [The kids discover that webbed feet help aquatic animals move through the water.] - ET2b: Use a variety of low-tech tools including writing, drawing and painting utensils, scissors, magnifiers, balance scales, ramps, pulleys, hammers, screwdrivers, sieves, tubing, binoculars, whisks, measuring cups. [The kids use swim fins to enhance their swimming ability.] - ND3: Understand that structures and materials in the natural world can be used or can inspire the engineering of structures with similar function in the designed world. [The kids discover that webbed feet and swim fins use the same principles. Swim fins give them "webbed feet".] - SEP1c: Ask and/or identify cause and effect questions that can be answered by an investigation. [The kids wonder if fins help push more water, and they investigate this by running different objects through the water.]

							- SEP3b: Compare and contrast objects and events by describing similarities and differences in detail. [The kids compare swim fins to webbed feet, other objects, and their own feet.] - SEP3d: With guidance, plan and conduct simple investigations using simple tools. [The kids compare objects to see which one makes the biggest splash.]
Strawberry Jam	148	Elinor’s Dad’s perfect birthday camping breakfast is less-than-perfect when they run out of strawberry jam.	Where do strawberries come from?	Ensemble	Forest/Campesite	Mr. Rabbit	LS4. Understand that all animals and plants have a life cycle, can reproduce, and change and grow over time: a. Observe the life cycle of familiar plants and animals b. Observe the growth in animals and plants c. Understand that living things grow and change over time. (Elinor and Olive observe the life cycle of the strawberry plant) SEP1. Asking questions (science) and defining problems (engineering) a. Demonstrate curiosity about the greater world outside of their local environment b. Ask more complex questions about observable phenomena (Elinor and Olive explore the strawberry field near their campground and ask questions about what they find.) SEP3. Planning and carrying out investigations a. Identify and use a greater variety of tools to extend the senses for observing, measuring, and recording data about objects and events b. Compare and contrast objects and events by describing similarities and differences in detail d. With guidance, plan and conduct simple investigations using simple tools e. Design and build a solution to a simple problem (engineering)(Elinor and Olive use the magnifying glass and notebook to examine the strawberries, then decide to make strawberry jam). SEP4. Analyzing and interpreting data

						a. Collect, describe, and record observations in greater detail and in various ways b. Use the 5 senses and simple tools to gather and record data c. Record observations to describe patterns and/or relationships in the natural and designed world(s) in order to answer scientific questions and solve problems. (Elinor and Olive collect, observe, describe and record the various stages of strawberries.)
Turtle Crossing	149	Elinor and her friends are having a blast riding on the new bike path in the park, until they keep getting interrupted by turtles crossing.	Why does the turtle cross the road?	Ensemble	Ranger Rabbit	LS5. Begin to understand that animals and plants depend on other living things and nonliving things in the environment to meet some of their needs: b. Identify the habitats of familiar animals and plants in the environment c. Recognize that each kind of living things has a habitat that has resources to meet its unique needs (Elinor and her friends observe the turtles’ interaction with their environment on land and in the pond) ES3. Understand that things people do to live comfortably can affect the world around them, but they can make choices that reduce their impacts on the land, water, air, and other living things: a. Ask questions about and discuss examples of how humans use Earth’s resources (including soil and water) to meet their needs b. Demonstrate an awareness of and the ability to discuss in simple terms the need for conservation, recycling, and respect for the environment c. Participate in simple activities to care for the environment (Elinor and her friends come to realize their new bike path cuts through the turtles’ route to the pond, so they create a detour).

To Bee or Not to Bee	150	While on a picnic, Elinor tries to help her friend Koa get over his fear of bees.	Why do bees sting you?	Ensemble	Koa	Forest	Curriculum Goals: · LS2. Understand that animals have different body parts that are used in different ways to meet their needs, and that plants have different parts that help them survive and grow: a. Identify body parts of animals and their function · LS8: Begin to understand that there are many different kinds of living things and how they may be the same or different: a. Observe and describe similarities and differences across different types of plants and animals · SEP4: Analyzing and interpreting data a. Collect, describe, and record observations in greater detail and in various ways b. Use the 5 senses and simple tools to gather and record data c. Record observations to describe patterns and/or relationships in the natural and designed world(s) in order to answer scientific questions and solve problems. d. Talk about and reflect on what happened during an investigation or when solving a problem, and why it might have happened
Baby Steps	151	Elinor and Ari are taking care of Ari's sister Miri but they start to wonder why she can't walk yet, meanwhile Olive gets frustrated when she can't do her roller-skating trick.	Why can't we teach baby Miri to walk?	Ensemble	Baby Miri	Park, Skatepark	Curriculum Goals: LS4. Understand that all animals and plants have a life cycle, can reproduce, and change and grow over time: b. Observe the growth in animals and plants c. Understand that living things grow and change over time (Elinor and her friend observe baby Miri is just still a baby, but she will grow into a big kid like them) SEP1. Asking questions (science) and defining problems (engineering)

							b. Ask more complex questions about observable phenomena c. Ask and/or identify cause and effect questions that can be answered by an investigation (Elinor and Ari observe Miri's behavior and ask why she can't walk), SEP3. Planning and carrying out investigations b. Compare and contrast objects and events by describing similarities and differences in detail c. Demonstrate an ability to make and test predictions based on background knowledge and experiences (Elinor and Ari contrast their abilities with Miri's and predict that she might not be able to stand) SEP6. Constructing explanations (science) and Designing Solutions (engineering) a. Use background knowledge experiences, and data to construct reasonable explanations and theories of natural phenomena (science) b. Look for and describe patterns and relationships in natural phenomena (science) (Elinor and her friends realize that you need to practice to learn many skills, as well as to become more mature).
Big Trees	152	Ari wants to build as big a block tower as he can, but it keeps falling down until he gets some building inspiration from the sequoia trees.	How do I make my block tower tall?	Ensemble	Mz. Mole	Forest	Curriculum: LS2. Understand that animals have different body parts that are used in different ways to meet their needs, and that plants have different parts that help them survive and grow: b. Identify the basic parts of plants and their function c. Compare how the external body parts of animals and plants are the same and/or different

							d. Explore how different external features of a plant or animal help it survive in its environment. (Elinor and her friends observe the size of the sequoia tree, especially the circumference of the base.) ND3. (RTL Crosscutting concept ‘Structure and Function’): Understand that structures and materials in the natural world can be used or can inspire the engineering of structures with similar function in the designed world. (Ari decides to copy the structure of the big tree to help him build a more stable block tower at home).
Follow your Nose	153	The kids follow their noses and learn the value of smelling.	Why do we need to smell?	Ensemble	Mr. Raccoon, Mrs. Hippo, Mr. Dog	All over Animal Town	LS2. Understand that animals have different body parts that are used in different ways to meet their needs, and that plants have different parts that help them survive and grow: a. Identify body parts of animals and their function [Noses] d. Explore how different external features of an animal help it survive in its environment [Noses help you smell things!] SEP1. Asking questions (science) and defining problems (engineering) b. Ask more complex questions about observable phenomena c. Ask and/or identify cause and effect questions that can be answered by an investigation (When Ari loses his sense of smell, Elinor and her friends wonder why we need to smell in the first place.) SEP3. Planning and carrying out investigations b. Compare and contrast objects and events by describing similarities and differences in detail c. Demonstrate an ability to make and test predictions based on background knowledge and experiences (Elinor and her friends observe different types of smells and predict what will smell good and what will smell bad). SEP4. Analyzing and interpreting data b. Use the 5 senses and to gather and record data (Elinor and her friends combine sight and smell to analyse data) SEP6. Constructing explanations (science)

							b. Look for and describe patterns and relationships in natural phenomena (science) c. Use and apply productive science discourse to support an explanation (Elinor and her friends look for a describe patterns to what they see and smell (good food smells good, bad food smells bad)) SEP7. Engaging in argument from evidence a. Engage in discussions before, during, and after investigations b. Support thinking and argue ideas with evidence (Elinor and her friends discuss the evidence they've found) SEP8. Obtaining, evaluating and communicating information a. Obtain information through discussing prior knowledge and observations with experts including teachers or knowledgeable adults c. Describe observable phenomena using adjectives and labels (Elinor and her friends discuss their observations with Mrs. Gorilla and other adults).
154	Leaf Charms	Elinor and Camilla learn to appreciate all the charming shapes of leaves.	Are all leaves the same shape?	Ensemble - Camilla	Camilla	Camilla's House	LS6. Understand that individuals of the same kind of plant or animal are recognizable as similar but can also vary in many ways: a. Contrast individuals of the same kinds of plant and animal [they compare leaves] ND1. (RTL Crosscutting concept 'Patterns'): Understand that modes of life in the natural world and engineered solutions in the designed world have common patterns, and engineers often look to natural patterns for inspiration. [the leaves inspire the charms]
155	Pigments of your imagination	When Elinor's art class runs out of paint, the kids learn to make art using the colors found in nature.	Can you make pictures from colors using plants instead of paint?	Ensemble	Mr. Lion	Art Class	· LS8. Begin to understand that there are many different kinds of living things and how they may be the same or different. (Different plants have different pigments.) ND2. Begin to understand that systems developed in our world often work in similar ways to systems found in the natural world. (Elinor and her friends learn that paints are different colors depending on the pigments in them, just as plants are different colors because of their pigments.)

156	Litterbug	Elinor and her friends help Mrs. Hippo, the Animal Town custodian try to find a litter bug, who is leaving trash all over Animal Town.	Who is the Animal Town Litter Bug?	Ensemble	Mrs. Hippo	All over Animal Town	ES3. Understand that things people do to live comfortably can affect the world around them, but they can make choices that reduce their impacts on the land, water, air, and other living things: b. Demonstrate an awareness of and the ability to discuss in simple terms the need for conservation, recycling, and respect for the environment c. Participate in simple activities to care for the environment
157	Rocky the Rock	When Ari makes friends with Rocky the Rock, he starts to wonder if the rock is alive	Are rocks alive?	Ensemble	Mz. Mole	Playground	Begin to understand that there are many different kinds of living things and how they may be the same or different: