



**Literacy Connections, Texas K-5 Science
Kindergarten – Fifth Grade, 2017 TEKS**

Scientific Investigation and Reasoning

Kindergarten	First	Second	Third	Fourth	Fifth
<p>1.A Identify, discuss, and demonstrate safe and healthy practices as outlined in the TEA-approved safety standards during classroom and outdoor investigations, including wearing safety goggles or chemical splash goggles as appropriate), washing hands, and using materials appropriately.</p>	<p>1.A Identify, discuss and demonstrate safe and healthy practices as outlined in the TEA-approved safety standards during classroom and outdoor investigations, including wearing safety goggles or chemical splash goggles (as appropriate), washing hands, and using materials appropriately.</p>	<p>1.A Identify, describe, and demonstrate safe practices as outlined in Texas Education Agency-approved safety standards during classroom and outdoor investigations, including wearing safety goggles or chemical splash goggles, as appropriate, washing hands, and using materials appropriately.</p>	<p>1.A Demonstrate safe practices as described in Texas Education Agency-approved safety standards during classroom and outdoor investigations using safety equipment as appropriate, including safety goggles or chemical splash goggles, as appropriate, and gloves.</p>	<p>1.A Demonstrate safe practices and the use of safety equipment as described in Texas Education Agency-approved safety standards during classroom and outdoor investigations using safety equipment, including safety goggles or chemical splash goggles, as appropriate, and gloves, as appropriate.</p>	<p>1.A Demonstrate safe practices and the use of safety equipment as outlined in Texas Education Agency-approved safety standards during classroom and outdoor investigations using safety equipment, including safety goggles or chemical splash goggles, as appropriate, and gloves, as appropriate.</p>
<p>1.B Demonstrate how to use, conserve, and dispose of natural resources and materials such as conserving water and reusing or recycling of paper, plastic, and metal.</p>	<p>1.B Identify and learn how to use natural resources and materials including conservation and reuse or recycling of paper, plastic, and metals.</p>	<p>1.B Identify and demonstrate how to use, conserve, and dispose of natural resources and materials such as conserving water and reuse or recycling of paper, plastic, and metal.</p>	<p>1.B Make informed choices in the use and conservation of natural resources by recycling or reusing materials such as paper, aluminum cans, and plastics.</p>	<p>1.B Make informed choices in the use and conservation of natural resources and reusing and recycling of materials such as paper, aluminum, glass, cans and plastic.</p>	<p>1.B Make informed choices in the conservation, disposal, and recycling of materials.</p>
<p>Literature Resources: <i>The Great Trash Bash</i> by Loreen Leedy <i>Judy Moody Saves the World!</i> by Megan McDonald [Novel: Judy vows to reform her family's recycling habits] <i>Not a Box</i> by Antoinette Portis [What else can a box be?] <i>Officer Buckle and Gloria</i> by Peggy Rathmann <i>Stuff</i> by Stephen Kroll [A packrat discovers the joy in reducing and reusing] <i>The Wartville Wizard</i> by Don Madden [Wartville is being buried in trash!]</p>					
<p>2.A Ask questions about organisms, objects, and events observed in the natural world.</p>	<p>2.A Ask questions about organisms, objects, and events observed in the natural world.</p>	<p>2.A Ask questions about organisms, objects, and events during observations and investigations.</p>			<p>2.B Ask well-defined questions, formulate testable hypotheses, and select and use appropriate equipment and technology.</p>
<p>Literature Resources: <i>Animal Eyes</i> by Beth Fielding [compare and contrast] <i>Big Tracks, Little Tracks: Following Animal Prints</i>, by Millicent E. Selsam [follow clues] <i>Bumblebee, Bumblebee, Do You Know Me? A Garden Guessing Game</i> by Anne F. Rockwell <i>Buster</i> by Denise Fleming [predicting] <i>Can an Aardvark Bark?</i> By Melissa Stewart [predicting] <i>Counting on Frank</i>, by Rod Clement [asking questions] <i>Dr. Xargle's Book of Earthlets</i>. By Jeanne Willis [inferences about human behavior]</p>					



Kindergarten	First	Second	Third	Fourth	Fifth
<p><i>Hatch!</i> By Roxie Munro [Can you guess whose eggs these are? There are question and clues before the reader turns the page to find the answer.] <i>I Want My Hat Back</i> by Jon Klassen [questioning and inferring] <i>In the Snow: Who's Been Here?</i> by Lindsay Barrett George [infer from evidence] <i>Private I. Guana</i> by Nina Laden (Storyline Online: http://www.storylineonline.net/iguana/fullscreen_yt.html) <i>Questions, Questions</i> by Marcus Pfister <i>Same Old Horse</i> by Stuart J. Murphy [predicting] <i>The Stranger</i> by Chris Van Allsburg [questioning and inferring] <i>Tadpole's Promise</i> by Tony Ross [predicting] <i>The Watcher: Jane Goodall's Life With the Chimps</i> by Jeanette Winter</p>					
<p>2.B Plan and conduct simple descriptive investigations.</p>	<p>2.B Plan and conduct simple descriptive investigations.</p>	<p>2.B Plan and conduct descriptive investigations.</p>	<p>2.A Plan and implement descriptive investigations including asking and answering questions, making inferences, and selecting and using equipment or technology needed to solve a specific problem in the natural world.</p>	<p>2.A Plan and implement descriptive investigations, including asking well-defined questions, making inferences, and selecting and using appropriate equipment or technology to answer his/her questions.</p>	<p>2.A Describe, plan and implement simple experimental investigations testing one variable.</p>
<p>2.C Collect data and make observations using simple tools.</p>	<p>2.C Collect data and make observations using simple tools</p>	<p>2.C Collect data from observations using scientific tools.</p>	<p>2.B Collect and record data by observing and measuring using the metric system and recognize differences between observed and measured data.</p>	<p>2.B Collect and record data by observing and measuring, using the metric system, and using descriptive words and numerals, such as labeled drawings, writing, and concept maps.</p>	<p>2.C Collect and record information using detailed observations and accurate measuring.</p>
<p>Literature Resources: <i>Actual Size</i> by Steve Jenkins <i>Ants Rule: The Long and Short of It</i> by Bob Barner <i>Far From Shore: Chronicles of an Open Ocean Voyage</i> by Sophie Webb [For upper grades - introduce science notebooks to students] <i>I Was a Third Grade Science Project</i> by Herm Auch <i>Insect Detective</i> by Steve Voake <i>Ninjas, Piranhas, and Galileo</i> by Greg Leitch Smith [novel] <i>On the Way to the Beach</i> by Henry Cole [make observations in different habitats] <i>Owen Foote, Mighty Scientist</i> by Stephanie Green</p>					
<p>2.D Record and organize data and observations using pictures, numbers, and words.</p>	<p>2.D Record and organize data using pictures, numbers, and words.</p>	<p>2.D Record and organize data using pictures, numbers, and words.</p>	<p>2.C Construct maps, graphic organizers, simple tables, charts, and bar graphs using tools and current technology to organize, examine, and evaluate measured data.</p>	<p>2.C Construct simple tables, charts, bar graphs, and maps using tools and current technology to organize, examine, and evaluate data.</p>	<p>2.G Construct appropriate simple graphs, tables, maps, and charts using technology including computers to organize, examine, and evaluate information.</p>
<p>Literature Resources: <i>Duck! Rabbit!</i> by Amy Krause Rosenthal [chart students guesses and graph results after reading book] <i>Hattie and the Fox</i> by Mem Fox <i>How Big is a Foot?</i> By Rolf Myller</p>					



Kindergarten	First	Second	Third	Fourth	Fifth
<p><i>How Big is Big?</i> by Stephen Strauss [size perception, and the relativity of measurements] <i>How Many Jellybeans? A Giant Book of Giant Numbers</i> by Andrea Menotti <i>How Many Seeds in a Pumpkin?</i> By Margaret McNamara <i>How Much is a Million?</i> By David M. Schwartz <i>How Tall, How Short, How Far Away</i>, by David Adler <i>If You Hopped like a Frog</i> by David Schwartz [ratio, proportion, and comparative anatomy] <i>Lemonade for Sale</i> by Stuart Murphy [friends chart their lemonade sales] <i>Measuring Penny</i>, by Loreen Leedy <i>The Great Graph Contest</i> by Loreen Leedy [data collection and graphing] <i>Tally O'Malley</i> by Stuart Murphy [O'Malley family is on their way to the beach, but the drive is boring so they decide to pass the time with tallying competitions] <i>Tiger Math</i> by Ann Whitehead Nagda [non-fiction book about a tiger at the Denver Zoo]</p>					
			<p>2.D Analyze and interpret patterns in data to construct reasonable explanations based on evidence from investigations.</p>	<p>2.D Analyze data and interpret patterns to construct reasonable explanations from data that can be observed and measured.</p>	<p>2.D Analyze and interpret information to construct reasonable explanations from direct (observable) and indirect (inferred) evidence.</p>
<p>Literature Resources: <i>Daley B</i> by John Blake [A rabbit collects data from the animals around him so he can decide where to live, what to eat, and what to do with his big feet] <i>Dear Mrs. LaRue: Letters from Obedience School</i> by Mark Teague [inferring] <i>A Dog's Life</i> by Ann M. Martin [inferring] <i>Fireflies!</i> by Julie Brinkloe [inferring] <i>Fish Fry Tonight</i> by Jackie French Koller [describing size goes awry] <i>Green Wilma</i> by Tedd Arnold [inferring] <i>Hattie and the Fox</i> by Mem Fox [additional data can change your perception] <i>The Mouse Who Owned the Sun</i> by Sally Derby [data analysis goes awry] <i>The Real McCoy: The Life of an African-American Inventor</i> by Wendy Towle <i>Tuesday</i> by David Wiesner [is there evidence for flying frogs?] <i>Toys Go Out</i> by Emily Jenkins [drawing conclusions and inferring] <i>Two Bad Ants</i> by Chris Van Allsburg [drawing conclusions and inferring]</p>					
<p>2.E Communicate observations about simple descriptive investigations</p>	<p>2.E Communicate observations and provide reasons for explanations using student-generated data from simple descriptive investigations.</p>	<p>2.E Communicate observations and justify explanations using student-generated data from simple descriptive investigations.</p>	<p>2.F Communicate valid conclusions supported by data in writing, by drawing pictures, and through verbal discussion.</p>	<p>2.F Communicate valid, oral and written results supported by data.</p>	<p>2.F Communicate valid conclusions in both written and verbal forms.</p>
<p>Literature Resources: <i>The Day Jimmy's Boa Ate the Wash</i> by Trinka Hakes Noble [cause and effect lesson at: http://goo.gl/2jdKL] <i>Dog Breath</i> by Dav Pilkey [cause and effect] <i>The Giant Jam Sandwich</i> by John Vernon Lord [cause and effect] <i>If Everybody Did</i> by Jo Ann Stover [cause and effect] <i>Sylvester and the Magic Pebble</i> by William Steig [cause and effect] <i>Why Mosquitoes Buzz in People's Ears</i> by Verna Aardema [cause and effect]</p>					



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		2.F Compare results of investigations with what students and scientists know about the world.	2.E Demonstrate that repeated investigations may increase the reliability of results.	2.E Perform repeated investigations to increase the reliability of results.	2.E Demonstrate that repeated investigations may increase the reliability of results.
			3.A Analyze, evaluate, and critique scientific explanations by using evidence, logical reasoning, and experimental and observational testing.	3.A Analyze, evaluate, and critique scientific explanations by using evidence, logical reasoning, and experimental and observational testing.	3.A Analyze, evaluate, and critique scientific explanations by using evidence, logical reasoning, and experimental and observational testing.
3.A Identify and explain a problem, such as the impact of littering, and propose a solution.	3.A Identify and explain a problem and propose a solution.	3.A Identify and explain a problem and propose a task and solution for the problem.			

Literature Resources:
Bedhead by Margie Palatini [problem/solution]
Bluebird Summer by Deborah Hopkinson [How can we get the bluebirds to come back?]
Chickens to the Rescue by John Himmelman [problem/solution]
The Fungus that Ate My School by Arthur Dorros
Regarding the Fountain: A Tale, in Letters, of Liars and Leaks by Kate Klise [Novel: solving the problem of a leaky drinking fountain]
Regarding the Sink: Where, Oh Where, Did the Waters Go? by Kate Klise [Novel: solving the problem of a stopped up sink]
Regarding the Trees: A Splintered Saga Rooted in Secrets by Kate Klise [Novel: solving the problem of overgrown trees]

3.B Make predictions based on observable patterns in nature.	3.B Make predictions based on observable patterns.	3.B Make predictions based on observable patterns.			
			3.B Represent the natural world using models such as volcanoes or Sun, Earth, and Moon system, and identify their limitations including size, properties, and materials.	3.B Represent the natural world using models such as the water cycle and stream tables and identify their limitations, including accuracy and size.	3.B Draw or develop a model that represents how something that cannot be seen such as the Sun, Earth and Moon system and formation of sedimentary rock works or looks.
3.C Explore that scientists investigate different things in the natural world and use tools to help in their investigations.	3.C Describe what scientists do.	3.C Identify what a scientist is and explore what different scientists do.	3.C Connect grade level appropriate science concepts with the history of science, science careers and contributions of scientists.	3.C Connect grade-level appropriate science concepts with the history of science, science careers, and contributions of scientists.	3.C Connect grade-level appropriate science concepts with the history of science, science careers, and contributions of scientists.

Literature Resources:
Archibald Frisby by Michael Chesworth is a wonderful book about a boy who sees science in everything.
The Dinosaurs of Waterhouse Hawkins by Barbara Kerley [true story of the man who created the first model of a dinosaur]
The Librarian Who Measured the Earth by Kathryn Lasky [the story of Eratosthenes, who used indirect measurement to calculate the circumference of the Earth]
Me...Jane by Patrick McDonnell [chimpanzee researcher Jane Goodall as a child]
Meet Einstein by Marisela Kleiner
Snowflake Bentley by Jacqueline Briggs Martin



Kindergarten	First	Second	Third	Fourth	Fifth
<p>4.A Collect information using tools, including computing devices, hand lenses, primary balances, cups, bowls, magnets, collecting nets, and notebooks; timing devices, nonstandard measuring items, weather instruments such as demonstration thermometers, and materials to support observations of habitats of organisms such as terrariums and aquariums..</p>	<p>4.A Collect, record, and compare information using tools, including computers, hand lenses, primary balances, cups, bowls, magnets, collecting nets, notebooks, and safety goggles or chemical splash goggles, as appropriate; timing devices, non-standard measuring items, weather instruments such as demonstration thermometers and wind socks; and materials to support observations of habitats of organisms such as terrariums and aquariums.</p>	<p>4.A Collect, record, and compare information using tools, including computers, hand lenses, rulers, plastic beakers, magnets, collecting nets, notebooks, and safety goggles or chemical splash goggles, as appropriate; timing devices; weather instruments such as thermometers, wind vanes, and rain gauges; and materials to support observations of habitats of organisms such as terrariums and aquariums.</p>	<p>4.A Collect, record, and analyze information using tools, including cameras, computers, hand lenses, metric rulers, Celsius thermometers, wind vanes, rain gauges, pan balances, graduated cylinders, beakers, spring scales, hot plates, meter sticks, magnets, collecting nets, notebooks, Sun, Earth, and Moon system models; timing devices; and materials to support observation of habitats of organisms such as terrariums and aquariums.</p>	<p>4.A Collect, record, and analyze information using tools, including calculators, microscopes, cameras, computers, hand lenses, metric rulers, Celsius thermometers, mirrors, spring scales, graduated cylinders, beakers, hotplates, meter sticks, magnets, collecting nets, and notebooks; timing devices; and materials to support observation of habitats of organisms such as terrariums and aquariums.</p>	<p>4.A Collect, record and analyze information using tools including calculators, microscopes, cameras, hand lenses, metric rulers, Celsius thermometers, prisms, mirrors, balances, spring scales, graduated cylinders, beakers, hot plates, meter sticks, magnets, collecting nets, and notebooks; timing devices; and materials to support observations of habitats or organisms such as terrariums and aquariums.</p>
<p>Literature Resources: <i>Beware of Boys</i> by Tony Blundell [a boy captured by a wolf gives him all kinds of measurements for recipes] <i>What's Smaller than a Pygmy Shrew?</i> By Robert E. Wells [measuring small sizes] <i>Inch by Inch</i> by Leo Leonni [A small green inchworm is proud of his skill at measuring anything]</p>					
<p>4.B Use the senses as a tool of observation to identify properties and patterns of organisms, objects, and events in the environment.</p>					
	<p>4.B Measure and compare organisms and objects using non-standard units.</p>	<p>4.B Measure and compare organisms and objects.</p>			
<p>Literature Resources: <i>Is a Blue Whale the Biggest Thing There Is?</i> By Robert E. Wells <i>How Big is a Foot?</i> By Rolf Myller <i>How Tall, How Short, How Far Away?</i> By David A. Adler <i>Measuring Penny</i> by Loreen Leedy <i>Twelve Snails to One Lizard</i> by Susan Hightower [Milo the Beaver needs to cut a branch exactly 36 inches long]</p>					



Reporting Category 1: Matter and Energy

The student will demonstrate an understanding of the properties of matter and energy and their interactions.

Kindergarten	First	Second	Third	Fourth	Fifth
<p>5.A Observe and record properties of objects including bigger or smaller, heavier or lighter, shape, color, and texture.</p>	<p>5.A Classify objects by observable properties such as larger and smaller, heavier and lighter, shape, color, and texture.</p>	<p>5.A Classify matter by physical properties including relative temperature, texture, flexibility, and whether material is a solid or liquid.</p>	<p>5.A Measure, test, and record physical properties of matter including temperature, mass, magnetism, and the ability to sink or float.</p>	<p>5.A Measure, compare, and contrast physical properties of matter including mass, volume, states (solid, liquid, gas), temperature, magnetism, and the ability to sink or float.</p>	<p>☆ 5.A Classify matter based on measurable, testable, and observable physical properties including: mass, magnetism, physical state (solid, liquid, and gas), relative density (sinking and floating using water as a reference point), solubility in water, and the ability to conduct or insulate thermal energy or electric energy.</p>
<p>Literature Resources: <i>Ducky</i> by Eve Bunting [buoyancy] <i>Gregory the Terrible Eater</i> by Mitchell Sharmat [can classify objects eaten by goats according to physical properties.] <i>Mighty Maddie</i> by Stuart J. Murphy [sorts toys by how heavy or light they are] <i>Just a Little Bit</i> by Ann Tompert [elephant and a mouse try to play on a seesaw] <i>More</i> by I. C. Springman [what happens when magpies add too much to their nest?] <i>Stars Beneath Your Bed</i> by April Pulley Sayre [the fascinating story of dust: where it comes from – nature of matter] <i>Ten Little Rubber Ducks</i> by Eric Carle [buoyancy] <i>Tiny Creatures</i> by Nicola Davies [size] <i>Who Sank the Boat</i> by Pamela Allen [influence of mass on buoyancy]</p>					
			<p>5.B Describe and classify samples of matter as solids, liquids, and gases and demonstrate that solids have a definite shape and that liquids and gases take the shape of their container.</p>		
<p>5.B Observe, record, and discuss how materials can be changed by heating or cooling.</p>	<p>5.B Predict and identify changes in materials caused by heating and cooling.</p>	<p>5.B Compare changes in materials caused by heating and cooling.</p>	<p>✓ 5.C Predict, observe, and record changes in the state of matter caused by heating or cooling such as ice becoming liquid water, condensation forming on the outside of a glass of ice water, or liquid water being heated to the point of becoming water vapor.</p>		



Kindergarten	First	Second	Third	Fourth	Fifth
	5.C Classify objects by the materials from which they are made.				
Literature Resources: <i>Bubble Trouble</i> by Margaret Mahy [bubbles can trap a gas] <i>Heating Up and Cooling Down</i> by Darlene R. Stille <i>Hot Air Henry</i> by Mary Calhoun [balloons trap gas in order to fly] <i>Pop! A Book About Bubbles</i> by Kimberly Brubaker [bubbles can trap a gas] by Stephen Huneck <i>Snowmen at Night</i> by Caralyn Buehner [a boy observes that the snowman he built the day before now looks droopy and disheveled] <i>A Symphony of Whales</i> by Steve Schuch [beluga whales are trapped by sea ice] <i>The Story of Snow</i> by Mark Cassino [relationship between water chemistry and the water cycle] <i>Thunder Cake</i> by Patricia Polacco [chemical changes in baking a cake] <i>Once Upon Ice and Other Frozen Poems</i> by Jane Yolen					
		5.C Demonstrate that things can be done to materials to change their physical properties such as cutting, folding, sanding and melting.			✓ 5.C Identify changes that can occur in the physical properties of the ingredients of solutions such as dissolving salt in water or adding lemon juice to water.
		5.D Combine materials that when put together can do things that they cannot do by themselves such as building a tower or a bridge and justify the selection of those materials based on their physical properties.	5.D Explore and recognize that a mixture is created when two materials are combined, such as gravel and sand and metal or plastic paper clips.	5.B Compare and contrast a variety of mixtures including solutions.	✓ 5.B Demonstrate that some mixtures maintain physical properties of their ingredients such as iron filings and sand and sand and water.
Literature Resources: <i>Bartholomew and the Oobleck</i> by Dr. Seuss <i>Ike's Incredible Ink</i> by Brianne Farley <i>Pop! A Book About Bubbles</i> by Kimberly Brubaker [bubbles are a solution] <i>Two Bad Ants</i> by Chris Van Allsburg [introduce mixtures and dissolving]					



Reporting Category 2: Force, Motion, and Energy

The student will demonstrate an understanding of force, motion, and energy and their relationships.

Kindergarten	First	Second	Third	Fourth	Fifth
<p>6.A Use the senses to explore different forms of energy, such as light, thermal, and sound.</p>	<p>6.A Identify and discuss how different forms of energy such as light, thermal, and sound are important to everyday life.</p>	<p>6.A Investigate the effects on objects by increasing or decreasing amounts of light, heat, and sound energy such as how the color of an object appears differently in dimmer light or how heat melts butter.</p>	<p>6.A Explore different forms of energy including mechanical, light, sound, and thermal in everyday life.</p>	<p>6.A Differentiate among forms of energy including mechanical, sound, electrical, light, and thermal.</p>	<p>☆6.A Explore the uses of energy including mechanical, light, thermal, electrical, and sound energy.</p>
<p>Literature Resources: <i>All the Colors of the Rainbow</i> by Allan Fowler <i>Annie Jump Cannon, Astronomer</i> by Carole Gerber <i>Day Light, Night Light: Where Light Comes From</i> by Frankyn Branley <i>Early Bird Energy Series</i> by Sally M. Walker <i>Flicker Flash</i> By Joan Bransfield Graham [poetry about light sources] <i>Guess Whose Shadow?</i> By Stephen R. Swineburne <i>Hot Air Henry</i> by Mary Calhoun [differences in air temperature allow balloons to fly] <i>Keep the Lights Burning, Abbie</i> by Peter Roop [light and lighthouses] <i>The Listening Walk</i> by Paul Showers <i>Marsh Morning</i> by Marianne Berkes [poems illustrating the symphony of nature] <i>Marsh Music</i> by Marianne Berkes <i>Music in the Night</i> by Etta Wilson <i>My Light</i> by Molly Bang [light and energy, also stars, electricity, water cycle, food chains, etc.] <i>Nothing Sticks Like a Shadow</i> by Ann Tompert <i>Oscar and the Bat: A Book about Sound</i> by Geoff Waring [more titles in series, such as <i>Oscar and the Moth: A Book About Light and Dark</i>, etc.] <i>The Rainbow Goblins</i> by Ul De Rico [visible spectrum, optics, light and color] <i>Sounds All Around Us</i> by Wendy Pfeffer <i>A Symphony of Whales</i> by Steve Schuch [beluga whales are trapped by sea ice] <i>Thunder Cake</i> by Patricia Polacco [how thunder is produced] <i>Trumpet of the Swan</i> by E. B. White [Novel: Louis is a trumpeter swan who cannot make a sound.] <i>What Did They See?</i> John Schindel</p>					
				<p>6.B Differentiate between conductors and insulators of thermal and electrical energy.</p>	
				<p>6.C Demonstrate that electricity travels in a closed path, creating an electrical circuit.</p>	<p>☆6.B Demonstrate that the flow of electricity in closed circuits can produce light, heat, or sound.</p>



Kindergarten	First	Second	Third	Fourth	Fifth
					☆ 6.C Demonstrate that light travels in a straight line until it strikes an object or travels from one medium to another and demonstrate that light can be reflected such as the use of mirrors or other shiny surfaces, and refracted such as the appearance of an object when observed through water.
Literature Resources: <i>Charged Up: The Story of Electricity</i> by Jacqui Bailey <i>Electrical Wizard: How Nikola Tesla Lit Up the World</i> by Elizabeth Rusch <i>Flick A Switch: How Electricity Gets To Your Home</i> by Barbara Seuling <i>The Shocking Story of Electricity</i> by Anna Claybourne <i>Switch on, Switch Off</i> by Melvin Berger					
6.B Explore interactions between magnets and various materials.	6.B Predict and describe how a magnet can be used to push or pull an object.	6.B Observe and identify how magnets are used in everyday life.	6.C Observe forces such as magnetism and gravity acting on objects.	6.D Design an experiment to test the effect of force on an object such as a push or a pull, gravity, friction, or magnetism.	✓ 6.D Design a simple experimental investigation that tests the effect of force on an object.
Literature Resources: <i>I Fall Down</i> by Vicki Cobb [gravity] <i>What Makes a Magnet?</i> By Franklyn M. Branley <i>Marta's Magnets</i> by Wendy Pfeffer <i>Move It</i> by Adrienne Mason <i>Newton and Me</i> by Lynne Mayer [a young boy and his dog (Newton)explore the laws of motion] <i>Sheep in a Jeep</i> by Nancy Shaw [force and motion] <i>That Magnetic Dog,</i> By Bruce Whatley					
6.C Observe and describe the location of an object in relation to another such as above, below, behind, in front of, and beside.					
6.D Observe and describe the ways that objects can move such as, in a straight line, zigzag, up and down, back and forth, round and round, fast and slow.	6.C Demonstrate and record the ways that objects can move such as in a straight line, zig zag, up and down, back and forth, round and round, and fast and slow.	6.C Trace and compare patterns of movement of objects such as sliding, rolling, and spinning over time.	✓ 6.B Demonstrate and observe how position and motion can be changed by pushing and pulling objects such as swings, balls, and wagons.		
Literature Resources: <i>Guji, Guji</i> by Chih-Yuan Chen (Storyline Online: http://www.storylineonline.net/guji/fullscreen_yt.html) [Note: shows rolling movement and free-fall movement] <i>Mr. Ferris and His Wheel</i> by Kathryn Gibbs Davis <i>The Paper Airplane Book</i> by Seymour Simon [paper airplanes move in a variety of ways]					



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<p><i>Sebastian's Roller Skates</i> by Joan de du Prats (Storyline Online: http://www.storylineonline.net/sebastian/fullscreen_yt.html) <i>Skippyjon Jones: Up and Down</i> by Judy Schachner (Read online at: http://www.wegivebooks.org/books/skippyjon-jones-up-and-down) <i>What Does a Wheel Do?</i> Jim Pipe</p>					



Reporting Category 3: Earth and Space

The student will demonstrate an understanding of components, cycles, patterns, and natural events of Earth and space systems.

Kindergarten	First	Second	Third	Fourth	Fifth
7.A Observe, describe and sort rocks by size, shape, color, and texture.	7.A Observe, compare, describe and sort components of soil by size, texture, and color.	7.A Observe describe, and compare rocks by size, texture, and color.	7.A Explore and record how soils are formed by weathering of rock and the decomposition of plant and animal remains.	✓7.A Examine properties of soils, including color and texture, capacity to retain water, and ability to support the growth of plants.	☆7.A Explore the processes that led to the formation of sedimentary rocks and fossil fuels.
<p>Literature Resources: <i>Diary of a Worm</i> by Doreen Cronin <i>Dirt: The Scoop on Soil</i> by Natalie Rosinsky <i>If You Find a Rock</i> by Peggy Christian <i>Mud</i> by Mary Lyn Ray <i>Mud Matters</i> by Jennifer Owings <i>The Pebble in my Pocket: A History of Our Earth</i> by Meredith Hooper <i>Peterson First Guide to Rocks and Minerals</i> by Frederick H. Pough <i>Planet Earth/Inside Out</i> by Gail Gibbons <i>Rocks in His Head</i> by Carol Otis Hurst [rock collecting] <i>Rocks: Hard, Soft, Smooth and Rough</i> by Natalie Rosinsky <i>Rocks, Rocks, Rocks</i> by Nancy Elizabeth Wallace <i>Stone Wall Secrets</i> by Kristine and Robert Thorson <i>Sylvester and the Magic Pebble</i> by William Steig <i>Wiggling Worms art Work</i> by Wendy Pfeffer</p>					
			✓7.B Investigate rapid changes in Earth's surface such as volcanic eruptions, earthquakes, and landslides.	7.B Observe and identify slow changes to the Earth's surface caused by weathering, erosion and deposition from water, wind, and ice.	☆7.B Recognize how landforms such as deltas, canyons, and sand dunes are the result of changes to Earth's surface by wind, water, or ice.
<p>Literature Resources: <i>An Island Grows</i> by Lola M. Schaefer <i>The Big Rock</i> by Bruce Hiscock <i>Caves</i> by Stephen Kramer <i>How to Dig a Hole to the Other Side of the World</i> by Faith McNulty <i>Mountain Dance</i> by Thomas Locker <i>Planet Earth/Inside Out</i> by Gail Gibbons <i>The Pebble in My Pocket: A History of Our Earth</i> by Meredith Hooper [traces the environmental and physical changes that have taken place to a single pebble] <i>A Rock is Lively</i> by Dianna Hutts Aston <i>The Sun, the Wind, and the Rain</i> by Lisa Westberg Peters [how the earth made mountains] <i>What's Under the Bed?</i> By Mick Manning and Brita Granstrom [explore materials found in progressively deeper layers of the Earth]</p>					
7.B Observe and describe physical properties of natural sources of water including color and clarity.	7.B Identify and describe a variety of natural sources of water including streams, lakes, and oceans.	7.B Identify and compare the properties of natural sources of freshwater and saltwater.			



Kindergarten	First	Second	Third	Fourth	Fifth
Literature Resources: <i>I am Water</i> by Jean Marzollo <i>Sources of Water</i> by Rebecca Olien <i>Water Dance</i> by Thomas Locker					
7.C Give examples of ways rocks, soil, and water are useful.	7.C Identify how rocks, soil, and water are used to make products.	7.C Distinguish between natural and manmade resources.	7.C Explore the characteristics of natural resources that make them useful in products and materials such as clothing and furniture, and how resources may be conserved.	✓7.C Identify and classify the Earth's renewable resources including air, plants, water, and animals, and nonrenewable resources including coal, oil, natural gas, and the importance of conservation.	
Literature Resources: <i>Be a Friend to Trees: Let's-Read-and-Find-Out Science series</i> <i>Buried Sunlight: How Fossil Fuels Have Changed the Earth</i> by Molly Bang and Penny Chisholm <i>Dirt: The Scoop on Soil</i> by Natalie Rosinsky <i>In Coal Country</i> by Judith Hendershot <i>My River</i> by Shari Halpern <i>Sam and Dave Dig a Hole</i> by Mac Barnett; Illustrated by Jon Klassen [Challenging ending will make students think!]					
8.A Observe and describe weather changes from day to day and over seasons.	8.A Record weather information including relative temperature such as hot or cold, clear or cloudy, calm or windy and rainy or icy.	8.A Measure, record, and graph weather information including temperature, wind conditions, precipitation, and cloud coverage in order to identify patterns in the data.	8.A Observe, measure, record and compare day-to-day weather changes in different locations at the same time that include air temperature, wind direction and precipitation.	✓8.A Measure, record and predict changes in weather.	✓8.A Differentiate between weather and climate.
		8.B Identify the importance of weather and seasonal information to make choices in clothing, activities, and transportation.			
Literature Resources: <i>And Then It's Spring</i> by Julue Fogliano <i>Arctic Lights, Arctic Nights</i> by Debbie S. Miller <i>Cloud Dance</i> by Thomas Locker <i>Cloudette</i> by Tom Lichtenheld <i>Come On, Rain</i> by Karen Hesse <i>The Hat</i> by Jan Brett [Storybook online at: http://www.wegivebooks.org/books/the-hat] <i>Heat Wave</i> by Helen Ketteman [whimsical story of a heat wave and how it affects life on a farm] <i>If Frogs Made Weather</i> by Marion Dane Bauer <i>It Looked Like Spilt Milk</i> by Charles G. Shaw [clouds] <i>Less Than Zero</i> by Stuart Murphy [help students understand negative numbers like they may see in temperature] <i>The Man Who Named the Clouds</i> by Julie Hannah and Joan Holub <i>On the Same Day in March: A Tour of the World's Weather</i> by Marilyn Singer and Frane Lessac					



Kindergarten	First	Second	Third	Fourth	Fifth
<p><i>Sky Tree</i> by Thomas Locker [traces changes to a tree through the seasons] <i>Somewhere in the World Right Now</i> by Stacey Schuett <i>Summerbath Winterbath</i> by Eileen Spinelli <i>The Story of Snow: The Science of Winter's Wonder</i> by Mark Cassino <i>When It Starts to Snow</i> by Phillis Gershator</p>					
			<p>8.B Describe and illustrate the Sun as a star composed of gases that provides light and thermal energy</p>	<p>✓8.B Describe and illustrate the continuous movement of water above and on the surface of the Earth through the water cycle, and explain the role of the Sun as a major source of energy in this process.</p>	<p>✓8.B Explain how the Sun and the ocean interact in the water cycle.</p>
<p>Literature Resources: <i>All the Water in the World</i> by George Ella Lyon <i>Did a Dinosaur Drink this Water?</i> By Robert E. Wells <i>A Drop Around the World</i> by Barbara Shaw McKinney <i>The Drop In My Drink: The Story of Water on Our Planet</i> by Meredith Hooper <i>Down Comes the Rain</i> by Franklyn M. Branley <i>Flush!</i> By Carl Hiassen [novel: Are casino owners dumping raw sewage into the protected waters of the Florida Keys?] <i>The Snowflake: A Water Cycle Story</i> by Neil Waldman <i>Snowflake Bentley</i> by Jacqueline Briggs Martin <i>Snowmen at Night</i> by Caralyn Buehner [a boy observes that the snowman he built the day before now looks droopy and disheveled] <i>Water Can Be</i> by Laura Purdie Salas <i>Water Dance</i> by Thomas Locker</p>					
<p>8.B Identify events that have repeating patterns including seasons of the year and day and night.</p>	<p>8.B Observe and record changes in the appearance of objects in the sky such as the Moon and stars, including the Sun.</p>	<p>8.C Observe, describe, and record patterns of objects in the sky, including the appearance of the Moon.</p>	<p>8.C Construct models that demonstrate the relationship of the Sun, Earth, and Moon including orbits and positions.</p>	<p>✓8.C Collect and analyze data to identify sequences and predict patterns of change in shadows, seasons, and the observable appearance of the Moon over time.</p>	<p>☆8.C Demonstrate that Earth rotates on its axis once approximately every 24 hours causing the day/night cycle and the apparent movement of the Sun across the sky.</p>



Kindergarten	First	Second	Third	Fourth	Fifth
<p>Literature Resources: <i>All the Seasons of the Year</i> by Deborah Lee Rose <i>At This Very Moment</i> by Jim Arnowsky [different organisms throughout one 24 hour time period] <i>Autumn</i> by Terry Degezelle <i>A Bear for All Seasons</i> by Diane Marcial Fuchs <i>Cat and Mouse at Night</i> by Tomek Bogacki <i>Cat and Mouse in Snow</i> by Tomek Bogacki <i>Chicken Soup with Rice: A Book of Months</i> by Maurice Sendak <i>I Know It's Autumn</i> by Eileen Spinelli <i>It's Spring!</i> By Linda Glaser <i>Leaves</i> by David Erza Stein <i>What Makes the Seasons</i> by Megan Montague Cash <i>The Moon Book</i> by Gail Gibbons <i>The Moon Seems to Change</i> by Franklyn M. Branley <i>Moonbear's Shadow</i> by Frank Asch <i>Morning, Noon and Night</i> by Jean Craighead George [animal activity at dawn, morning, noon, afternoon, evening, dusk, twilight and night] <i>Mouse's First Fall</i> by Lauren Thompson <i>My Mama Had a Dancing Heart</i> by Libba Moore Gray <i>The Night is Like an Animal</i> by Candace Whitman <i>Now It Is Summer</i> by Eileen Spinelli <i>Rise the Moon</i> by Eileen Spinelli <i>Somewhere in the World Right Now</i> by Stacey Schuett <i>Spots of Light: A Book About Stars</i> by Dana Meachen Rau <i>Spring is Here</i> by Taro Gomi <i>Spring Song</i> by Barbara Seuling <i>Sun Up, Sun Down: The Story of Day and Night</i> by Jacqui Bailey <i>Tree for all Seasons</i> by Robin Bernard <i>Twilight Comes Twice</i> by Ralph Fletcher <i>What Does the Sky Say?</i> By Nancy White Carlstom <i>What Makes Day and Night</i> by Franklyn M. Branley <i>What Makes the Seasons</i> by Megan Montague Cash <i>When the Moon is Full: A Lunar Year</i> by Penny Pollack <i>Winter: An Alphabet Acrostic</i> by Steven Schnur <i>The Year at Maple Hill Farm</i> by Alice and Martin Provensen</p>					
<p>8.C Observe, describe, and illustrate objects in the sky such as the clouds, Moon, and stars, including the Sun.</p>	<p>8.C Identify characteristics of the seasons of the year and day and night.</p>		<p>✓8.D Identify the planets in Earth's solar system and their position in relation to the Sun.</p>		<p>✓8.D Identify and compare the physical characteristics of the Sun, Earth, and Moon.</p>
<p>Literature Resources: <i>Day Light, Night Light: Where Light Comes From</i> by Frankyn Branley <i>Long Night Moon</i> by Cynthia Rylant <i>My Place in Space</i> by Robin and Sally Hirst [accurate renditions of the solar system and beyond] <i>On Earth</i> by G. Brain Karas [orbit, rotation and tilt of the Earth] <i>Papa, Please Get the Moon for Me</i> by Eric Carle [introduce lunar cycle] <i>Phases of the Moon</i> (Patterns in Nature Series) by Gillia M. Olson <i>Sun Up Sun Down</i> by Gail Gibbons</p>					



Kindergarten	First	Second	Third	Fourth	Fifth
<p><i>What Makes Day and Night</i> by Franklin M. Branley [non-fiction with NASA photographs] <i>When the Moon is Full: A Lunar Year</i> by Mary Azarian <i>Who Gets the Sun Out of Bed?</i> By Nancy White Carlstrom</p>					
<p>8.D Demonstrate that air is all around us and observe that wind is moving air.</p>					
<p>Literature Resources: <i>The Boy Who Harnessed the Wind</i> by William Kamkwamba <i>Feel the Wind</i> (Let's Read and Find Out Science) by Arthur Dorros <i>Flora's Very Windy Day</i> by Jeanne Birdsall <i>Flyaway Pantaloons</i> by Sue Scullard <i>I Face the Wind</i> by Vicki Cobb <i>Iva Dunit and the Big Wind</i> by Carol Purdy <i>Mirandy and Brother Wind</i> by Patricia McKissack <i>When the Wind Stops</i> by Charlotte Zolotow <i>The Wind Blew</i> by Pat Hutchins</p>					



Reporting Category 4: Organisms and Environments

The student will demonstrate an understanding of the structures and functions of living organisms and their interdependence on each other and on their environment.

Kindergarten	First	Second	Third	Fourth	Fifth
<p>9.A Differentiate between living and nonliving things based upon whether they have basic needs and produce offspring.</p>	<p>9.A Sort and classify living and nonliving things based upon whether they have basic needs and produce offspring.</p>	<p>9.A Identify the basic needs of plants and animals.</p>			
<p>Literature Resources: <i>Even an Octopus Needs a Home</i> by Irene Kelly <i>Fairy Houses</i> by Tracy Kane [What would happen if you built a house for the fairies to live in? Would they come to visit?] <i>Just One Bite</i> by Lola M. Schlaefter [compare size of bites and eating habits] <i>What's Alive</i> by Kathleen Weidner <i>What's For Dinner?</i> By Katherine B. Hauth [poems like: Finding food / is not a joke. / Living things must eat / or croak.]</p>					
<p>9.B Examine evidence that living organisms have basic needs such as food, water, and shelter for animals, and air, water, nutrients, sunlight, and space for plants.</p>	<p>9.B Analyze and record examples of interdependence found in various situations such as terrariums and aquariums or pet and caregiver.</p>	<p>9.B Identify factors in the environment, including temperature and precipitation, that affect growth and behavior such as migration, hibernation, and dormancy of living things.</p>	<p>✓9.A Observe and describe the physical characteristics of environments and how they support populations and communities of plants and animals within an ecosystem.</p>	<p>9.A Investigate that most producers need sunlight, water, and carbon dioxide to make their own food, while consumers are dependent on other organisms for food.</p>	<p>☆9.A Observe the way organisms live and survive in their ecosystem by interacting with the living and nonliving components.</p>
<p>Literature Resources: <i>Animals in Winter</i> by Henrietta Bancroft <i>Cactus Hotel</i> by Brenda Guiberson [how plants and animals depend upon one another for their survival] <i>Chipmunk Song</i> by Joanne Ryder [life of a chipmunk from the chipmunk's point of view] <i>Crawdad Creek</i> by Scott Russell Sanders [how living things depend on water] <i>Fish is Fish</i> by Leo Lionni <i>Honey...Honey...Lion!</i> by Jan Brett [interdependence of honey guide and honey badger] <i>How to Clean a Hippopotamus</i> by Steve Jenkins and Robin Page. [interdependence] <i>Night of the Spadefoot Toads</i> by Bill Harley [Novel: varied habitats and endangered species] <i>Our Wet World</i> by Sneed Collard III [explores aquatic ecosystems] <i>Over and Under the Pond</i> by Kate Messner [discover the plants and animals that make up the rich, interconnected ecosystem of a mountain pond] <i>Over and Under the Snow</i> by Kate Messner [great way to dispel the misconception that living things lie dormant during the winter months] <i>Spots: Counting Creatures from Sky to Sea</i> by Lesser, Carolyn [introduction to biomes] <i>Time to Sleep</i> by Denise Fleming [hibernation] <i>Under the Snow</i> by Melissa Stewart [hibernation and dormancy] <i>Wilson's World</i> by Edith Thacher Hurd [Wilson paints a picture of a beautiful world but keeps adding so many things that soon his world is not fit to live in.]</p>					
	<p>9.C Gather evidence of interdependence among living organisms such as energy transfer through food chains or animals using plants for shelter.</p>	<p>9.C Compare the ways living organisms depend on each other and on their environments, such as through food chains</p>	<p>9.B Identify and describe the flow of energy in a food chain and predict how changes in a food chain affect the ecosystem such as removal of frogs from a pond or bees from a field.</p>	<p>9.B Describe the flow of energy through food webs, beginning with the Sun, and predict how changes in the ecosystem affect the food web.</p>	<p>☆9.B Describe the flow of energy within a food web, including the roles of the Sun, producers, consumers and decomposers.</p>



Kindergarten	First	Second	Third	Fourth	Fifth
Literature Resources: <i>Butternut Hollow Pond</i> by Brian J. Heinz. <i>Everybody's Somebody's Lunch</i> by Cherie Mason <i>Horseshoe Crabs and Shorebirds: The Story of a Food Web</i> by Victoria Crenson <i>Pass the Energy, Please</i> by Barbara Shaw McKinney <i>Plant a Pocket of Prairie</i> by Phyllis Root <i>Pond Circle</i> by Betsy Franco [examples of food chains] <i>Sparrow Girl</i> by Sara Pennypacker [what can happen when activities disrupt the natural food chain] <i>Trout are Made of Trees</i> by April Pulley Sayre [matter is recycled, but energy flows] <i>What's Under the Log?</i> By Anne Hunter [web of life in a decaying log]					
			9.C Describe environmental changes such as floods and droughts where some organisms thrive and others perish or move to new locations.		✓9.C Predict the effects of changes in ecosystems caused by living organisms, including humans, such as the overpopulation of grazers or the building of highways.
Literature Resources: <i>Aliens from Earth: When Animals and Plants Invade Other Ecosystems</i> , by Mary Batten <i>Beaver Pond, Moose Pond</i> by Jim Aronsky [role of beaver populations in creating wet land habitats] <i>The Great Kapok Tree</i> by Lynne Cherry [animals persuade human to save the rainforest] <i>A Symphony of Whales</i> by Steve Schuch [belugas threatened by sea ice] <i>The Wolves are Back</i> by Jean Craighead Gorge [ecological balance is balance was restored once wolves were reintroduced]					
					✓9.D Identify fossils as evidence of past living organisms and the nature of the environments at the time using models.
Literature Resources: <i>Fossils Tell of Long Ago</i> by Aliko [non-fiction coverage of fossil formation and types of fossils] <i>How the Dinosaur Got to the Museum</i> by Jessie Hartland <i>If You are a Hunter of Fossils</i> by Byrd Baylor [covers clues to ancient environments] <i>Time Flies</i> by Eric Rohmann [wordless journey back in time] <i>The Voyage of Turtle Rex</i> by Kurt Cyrus [a baby turtle in the time of the dinosaurs and her journey of survival and struggle]					
10.A Sort plants and animals into groups based on physical characteristics such as color, size, body covering, or leaf shape.	10.A Investigate how the external characteristics of an animal are related to where it lives, how it moves, and what it eats.	10.A Observe, record and compare how the physical characteristics and behaviors of animals help them meet their basic needs.	10.A Explore how structures and functions of plants and animals allow them to survive in a particular environment.	10.A Explore how structures and functions enable organisms to survive in their environment.	☆10.A Compare the structures and functions of different species that help them live and survive in a specific environment such as hooves on prairie animals or webbed feet in aquatic animals.
10.B Identify basic parts of plants and animals.	10.B Identify and compare the parts of plants.	10.B Observe, record, and compare how the physical characteristics of plants help them meet their basic needs			



Kindergarten	First	Second	Third	Fourth	Fifth
		such as stems carry water throughout the plant.			

Literature Resources:
Animals in Disguise by Martine Duprez and Helene Appell-Mertiny
At the Sea Floor Cafe: Odd Ocean Critter Poems by Leslie Bulion [characteristics of odd creatures that live under the sea]
Bats on the Beach by Brian Lies
The Beast In You: Activities and Investigations To Explore Evolution by Marc McCutcheon
Commotion in the Ocean by Giles Andreae [poetry]
Creature Features by Steve Jenkins and Robin Page
Ducks Don't Get Wet by Augusta Golden
An Extraordinary Egg by Leo Lionni [you can't judge an egg by its shell]
I Don't Want to Be a Frog by Dev Petty
I Love Bugs! By Philemon Sturges
Giraffes Can't Dance by Giles Andreae
Guji, Guji by Chih-Yuan Chen (Storyline Online: http://www.storylineonline.net/guji/fullscreen_yt.html) [Is Guji Guji a crocodile or a duck?]
How to Hide a Meadow Frog and Other Amphibians by Ruth Heller
Hungry Little Hare by Howard Goldsmith [camouflage]
More by I. C. Springman [magpie behavioral adaptations]
Nature's Paintbrush The Patterns and Colors Around You by Susan Stockdale [the role of color in nature]
One Day in the Woods by Jean Craighead George [unusual adaptations]
Our Family Tree An Evolution Story by Lisa Westberg Peters
Over in the Ocean: In a Coral Reef by Marianne Berkes
Sophie's Masterpiece by Eileen Spinelli (Storyline Online: http://www.storylineonline.net/sophie/fullscreen_yt.html) [characteristics of spiders]
Stellaluna, by Jannell Cannon ((Storyline Online: http://www.storylineonline.net/stellaluna/fullscreen_yt.html)
Superworm by Julia Donaldson
A Swim Through the Sea by Kristin Pratt
This is Not My Hat by Jon Klassen [camouflage]
Tops and Bottoms by Janet Stevens
Trumpet of the Swan by E. B. White [Novel: Louis is a trumpeter swan who cannot make a sound.]
Ubiquitous: Celebrating Nature's Survivors by Joyce Sidman [poems describing how some organisms avoided extinction to become nature's survivors]
We hide, you seek by Jose Aruego and Ariane Dewey
What Do You Do With a Tail Like This? By Steve Jenkins [how physical characteristics help animals survive in their environments]

10.C Identify ways that young plants resemble the parent plant.	10.C Compare ways that young animals resemble their parents.			10.B Explore and describe examples of traits that are inherited from parents to offspring such as eye color and shapes of leaves and behaviors that are learned such as reading a book and a wolf pack teaching their pups to hunt effectively.	☆ 10.B Differentiate between inherited traits of plants and animals such as spines on a cactus or shape of beak, and learned behaviors such as an animal learning tricks or a child riding a bicycle.
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Literature Resources:
An Extraordinary Egg by Leo Lionni
Chicken Bedtime is Really Early by Erica S. Perl
Does a Kangaroo Have a Mother, Too? by Eric Carle



Kindergarten	First	Second	Third	Fourth	Fifth
<p><i>Grandfather's Nose: Why We All Look Alike or Different</i> by Dorothy Hinshaw Patent [note: high-level vocabulary] <i>Hey, Daddy! Animal Fathers and their Babies</i> by Mary Batten <i>A Pinky Is a Baby Mouse and Other Baby Animal Names</i> by Pam Munoz Ryan [100 animals are listed, each with the appropriate infant name of that species] <i>Pouch!</i> By David Ezra Stein</p>					
<p>10.D Observe changes that are part of a simple life cycle of a plant: seed, seedling, plant, flower, and fruit.</p>	<p>10.D Observe and record life cycles of animals such as a chicken, frog, or fish.</p>	<p>10.C Investigate and record some of the unique stages that insects such as grasshoppers and butterflies undergo during their life cycle.</p>	<p>✓10.B Investigate and compare how animals and plants undergo a series of orderly changes in their diverse life cycles such as tomato plants, frogs and lady beetles.</p>	<p>10.C Explore, illustrate and compare life cycles in living organisms, such as beetles, crickets, radishes or lima beans.</p>	
<p>Literature Resources: <i>A Butterfly is Patient</i> by Dianna Hutts Aston <i>A Seed is Sleepy</i> by Dianna Hutts Aston <i>All About Seeds</i> by Melvin Berger <i>An Egg is Quiet</i> by Dianna Hutts Aston <i>Animal Life Cycles: Fascinating Facts About 6 Different Animal Life Cycles</i> by Pam Zolman <i>Bean and Plant</i> by Christine Back and Barrie Watts <i>Chickens Aren't the Only Ones</i> by Ruth Heller <i>Fish is Fish</i> by Leo Lionni <i>From Seed to Plant</i> by Gail Gibbons <i>From Seed to Pumpkin</i> by Wendy Pfeffer <i>A Fruit is a Suitcase for Seeds</i> by Jean Richards <i>The Giant Carrot</i> by Jan Peck <i>Gotta Go! Gotta Go!</i> by Sam Swope [life cycle of monarch butterflies] <i>Grandpa's Garden Lunch</i> by Judith Caseley <i>How a Seed Grows</i> by Helen J. Jordan <i>I'm a Seed</i> by Jean Marzollo <i>Mosquito Bite</i> by Alexandra Siy [mosquito life cycle] <i>Lucas and His Loco Beans</i> by Ramona Moreno Winner [Mexican jumping beans can be ordered online at http://www.mypetbeans.com] <i>Oh Say Can You Seed</i> by Bonnie Worth <i>A Pill Bug's Life</i> by John Himmelman [also: <i>A Slug's Life, An Earthworm's Life, A Ladybug's Life, A Dandelion's Life, etc.</i>] <i>Pumpkin Circle: The Story of a Garden</i> by George Levenson [phases of the pumpkin's life with time-lapse photography] <i>Seeds Grow!</i> by Angela Shelf Medearis <i>A Seed is a Promise</i> by Claire Merrill <i>Seeds</i> by George Shannon <i>The Surprise Garden</i> by Zoe Hall <i>Ten Seeds</i> by Ruth Brown [also covers seed survival] <i>Tracks in the Sand</i> by Loreen Leedy [loggerhead turtles] <i>Wacky Plant Cycles</i> by Valerie Wyatt <i>Yonder</i> by Tony Johnson [human life cycles]</p>					