

Science Literature: Supplementary Document

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Science Literature: Kindergarten

Book Title	Author	Description	Standard
And Everyone Shouted "Pull!"	Claire Llewellyn	Farm animals struggle to get a cart moving using pushes and pulls.	K-PS2-1 K-PS2-2
The Little Snowplow	Lora Koehler	Can the little snowplow push and pull as much snow as the big plows?	K-PS2-1 K-PS2-2
Balancing Act	Ellen Walsh	Two mice make a teeter-totter. Then, some friends come along to play, too.	K-PS2-1
Oscar and the Cricket: A Book About Moving and Rolling	Geoff Waring	A boy works with his cricket friend to learn how things move.	K-PS2-1
Newton and Me	Lynne Mayer	While at play with his dog, a young boy discovers the laws of force and motion in his everyday activities.	K-PS2-2
Sun Up, Sun Down	Gail Gibbons	Simple language and bold illustrations make this a fun and informative book about the sun.	K-PS3-1
The Sun is My Favorite Star	Frank Asch	A simple story explaining that there are many stars in the galaxy. But only the sun wakes us in the morning, helps us grow, plays hide-and-seek behind the clouds, and paints pretty pictures in the evening sky.	K-PS3-1
Sun and Shade	Mary Lindeen	The sun gives off heat to keep plants and animals warm and alive. Sometimes the sun can be too hot and it is necessary to find a less sunny area. Shade can come from nature or can be manmade.	K-PS3-2
Are you my Mother?	P.D. Eastman	This classic story tells of a baby bird trying to find its mother after hatching from an egg.	K-LS1-1
What do Living Things Need?	Elizabeth Austen	This book introduces the things that living things need to survive: food, shelter, water, and air.	K-LS1-1 K-ESS3-1
Do you Know Which Ones Will Grow?	Tom Slaughter	This clever book includes rhyming text and adorable thought puzzles for kids to consider. For example, "If a duckling grows and becomes a duck, can a car grow and become a truck?"	K-LS1-1
Feathers: Not just for Flying	Melissa Stewart	Young naturalists meet sixteen birds in this introduction to the many uses of feathers.	K-LS1-1
Animals Should Definitely Not wear Clothing	Judi Barrett	This book discusses how animals have their own clothes, and dives into animal adaptations.	K-LS1-1
Like a Windy Day	Frank Asch	A little girl tumbles and twirls through the world, much the way the wind does each day.	K-ESS2-1
The Rain Came Down	David Shannon	Animals and humans alike react to the rain.	K-ESS2-1

Book Title	Author	Description	Standard
A year with the Wind	Hanna Konola	The wind narrates this story with the various things it does each month.	K-ESS2-1
Animal Architects: Amazing Animals Who Build Their Homes	Daniel Nassar and Julio Antonio Blasco	From gladiator frogs to chimpanzees, learn about how animals all over the world build their homes.	K-ESS2-2 K-LS1-1
Where in the Wild: Camouflaged Creatures Concealed	David Schwartz	Ten creatures await, camouflaged in artful, full-page photographs, while playful poems offer clues about each animal's identity and whereabouts. Think you've spotted one? Lift one of ten gatefolds to find out.	K-ESS3-1
The Earth and I	Frank Asch	A boy reflects on how the earth helps him and how he can help the earth. Could be used to discuss the impact humans have on the earth, and how they can help lessen this impact.	K-ESS3-1
Who likes the Rain?	Etta Kaner	Characters observe the rain and share why they like it. Includes fold-out pages that give more information on the science of rain. Series also includes books on wind, snow, and sun	K-ESS3-2
The Wind Blew	Pat Hutchins	A fun, rhyming book about villagers reacting to a giant windstorm.	K-ESS3-2
Freddy the Frogcaster	Janice Dean	Freddy the Frog loves learning about the weather, and he's known for having the best predictions in town. But what happens when the town picnic is almost ruined by a surprise storm?	K-ESS2-1 K-ESS3-2
What will the Weather be?	Lynda DeWitt	Filled with rich climate vocabulary, colorful diagrams and clear explanations of meteorology everyday weather instruments like thermometers and barometers.	K-ESS2-1 K-ESS3-2
Turtle, Turtle, Watch Out!	April Sayre	Sea turtles face dangers as they grow, eat, travel, and breed. In this dramatization of one turtle's challenges, the author highlights the role that humans have in helping this endangered species.	K-ESS3-3
Common Ground: The Water, Earth, and Air we Share	Molly Bang	Through the example of a shared village green and the growing needs of the townspeople who share it, Molly Bang presents the challenge of handling our planet's natural resources.	K-ESS3-3
Boxitects	Kim Smith	Two girls let their imagination run wild with amazingly creative box creations that serve a variety of playful purposes, and also learn valuable lessons about collaboration and how "together they are better."	K-2-ETS1-1
Made by Maxine	Ruth Spiro	Maxine is a tinkerer and goldfish owner extraordinaire who loves to repurpose old things into new.	K-2-ETS1-1

Book Title	Author	Description	Standard
Dreaming Up	Christy Hale	Parallels constructive play and real-world, extraordinary examples of architecture featuring a variety of children.	K-2-ETS1-2
What Can You Do with an Idea?	Kobi Yamada	This is the story of one idea and the child who helps to bring it into the world. As the child's confidence grows, so does the idea itself. And then, one day, something amazing happens.	K-2-ETS1-2

Science Literature: First Grade

Book Title	Author	Description	Standard
What Makes Different Sounds?	Lawrence Lowery	Jane and Jim explore why sounds can be startling, soothing, or mysterious. Readers are introduced to the roles vibration, pitch, and volume play in how rustles, rumbles, and rat-a-tat-tats are made and transferred to their own ears.	1-PS4-1
Oscar and the Bat: A Book about Sound	Geoff Waring	When Oscar hears a blackbird singing in the meadow, Bat swoops in to talk to him about sound. A sudden thunderstorm and a visiting cow give Oscar lots of opportunities to learn about sounds that are loud or soft, near or far, deep or high.	1-PS4-1
Sound: Loud, Soft, High and Low	Natalie Rosinsky	Non-fiction book that breaks down the concepts of sound and how sound travels for young learners. The author also addresses pitch, sound waves, and other facts.	1-PS4-1
Blackout	John Rocco	One hot summer night in the city, all the power goes out. The TV shuts off and a boy wails, "Mom!" His sister can no longer use the phone, Mom can't work on her computer, and Dad can't finish cooking dinner. What's a family to do?	1-PS4-2
Flashlight	Lizi Boyd	Inside a tent it's cozy. But what is going on outside? Is it dark? Is it scary? Not if you have your trusty flashlight! This story is an exploration of night, nature, and art.	1-PS4-2 1-PS4-3
Whoo's There? A Bedtime Shadow Book	Heather Zschock	Use a flashlight (not included) to cast picture shadows on your wall as you read the gentle rhyming tale of winsome animals keeping busy during the night.	1-PS4-3
Night Animals	Gianna Marino	Animals turn topsy-turvy in fear of things that go bump in the night.	1-PS4-4
Sounds All Around	Susan Hughes	Susan Hughes uses inviting text to explain the physics of sound. From describing how sounds are made by the vibrations of air, to identifying and considering the different sources of sound and its properties.	1-PS4-4
Biomimicry: Inventions Inspired by Nature	Dora Lee	Examines the extraordinary innovations of the natural world and the human inventions they have inspired.	1-LS1-1
Stellaluna	Janell Cannon	A fruit bat is separated from her mother and has to survive with a family of birds, mimicking the behavior of this different species.	1-LS1-1 1-LS-1-2
Don't Laugh, Joe!	Keiko Kasza	Mother Possum is concerned that Joe laughs so much, he cannot play dead to escape predators. Until he meets Mr Bear.	1-LS1-1 1-LS1-2
I Don't Want to be a Frog!	Dev Petty	Frog wants to be anything but a slimy, wet frog. A cat, perhaps. Or a rabbit. An owl? But when a hungry wolf arrives, our hero decides that being himself isn't so bad after all	1-LS1-2
The Barn Owls	T Johnston	This poetry book describes the lives of generations of owls, who have lived in a redwood barn for years.	1-LS1-2

Book Title	Author	Description	Standard
Papa's Mechanical Fish	Candace Fleming	A fictional account based on events in the life of inventor Lodner Phillips, told from the perspective of his daughter, Virena. With persistence and a little bit of help, Papa creates a submarine that can take his family for a trip to the bottom of Lake Michigan.	1-LS1-1 K-2-ETS1-2
The Boy who Harnessed the Wind	William Kamkwamba	A drought hit the country of Malawi in sub-Saharan Africa. Fascinated by machines, William is inspired by a diagram of a windmill in a library book to scavenge parts from the junkyard and makes them into a windmill, mounts it on a tower, and turns on a light with the wind.	1-LS1-1 K-2-ETS1-2
A Place to Start a Family: Poems about Creatures that Build	David Harrison	Many animals build something--a nest, tunnel, or web--in order to pair up, lay eggs, give birth, and otherwise perpetuate their species. Twelve poems bring fish, insects, reptiles, mammals, and birds to life.	1-LS1-2 K-2-ETS1-2
What Do You Do with a Tail Like This?	Steve Jenkins	The question of "What do you do with a nose, ears, tail, or mouth like this?" This book explains how physical characteristics of animals help them to survive in their environments.	1-LS1-2
The Reason for Seasons	Gail Gibbons	How the position of Earth in relation to the sun causes seasons.	1-ESS1-1 1-ESS1-2
Does the Sun Sleep?	Martha Rustad	Join Mr. Cruz's class as they observe patterns in the nighttime sky. They'll learn why the moon glows, what groups of stars are called when they make shapes, and if the sun actually does sleep at night!	1-ESS1-1
Kitten's First Full Moon	Kevin Henkes	Tells the story of a kitten who thinks the moon is a bowl of milk.	1-ESS1-1
Sun and Moon	Lindsey Yankey	Sun and Moon have always held their own places in the sky, but after a lifetime of darkness Moon wants to trade. Sun agrees, but only if Moon takes a careful look at his night, before making his final decision.	1-ESS1-1
The Shortest Day: Celebrating the Winter Solstice	Wendy Pfeffer	Explains what the winter solstice is and how it has been observed by various cultures throughout history.	1-ESS1-2
What Makes the Seasons?	Megan Cash	Megan Cash asks and answers thoughtful questions children have about the weather and the seasons.	1-ESS1-2
Sun, Moon, and Stars	Thea Feldman	This book introduces young readers to the sky above them, and explains the sun, moon and stars.	1-ESS1-1 1-ESS1-2
Sunshine Makes the Seasons	Franklyn Branley	Find out how the light from the sun affects life on the earth for all living things in this look at the only star in our solar system.	1-ESS1-2

Book Title	Author	Description	Standard
11 Experiments that Failed	Jenny Offill	Is it possible to eat snowballs doused in ketchup—and nothing else—all winter? Can a washing machine wash dishes? By reading the step-by-step instructions, kids can discover the answers to such all-important questions along with the book's curious narrator.	K-2-ETS1-1
What Do You Do with a Problem?	Kobi Yamada	A child struggles with the worry and anxiety that come with an unexpected problem. The longer the problem is avoided, the bigger it seems to get. But when the child finally musters up the courage to face it, the problem turns out to be something quite different than it appeared.	K-2-ETS1-1
Rosie Revere, Engineer	Andrea Beaty	A little girl works to design something that will help her aunt fly. After multiple failures and encouragement from her teacher, she finally succeeds. Use to introduce the concept of engineering and persevering to solve a problem.	K-2-ETS1-2
The Most Magnificent Thing	Ashley Spires	A little girl tries to build a magnificent contraption, but can't seem to get it right. She uses diagrams to plan her design, and faces failure before she finally succeeds.	K-2-ETS1-2
Min Makes a Machine	Emily McCully	Budding engineer Min uses her skills to save the day in this Level E easy reader	K-2-ETS1-2

Science Literature: Second Grade

Book Title	Author	Description	Standard
Touch it! Materials, Matter, and You	Adrienne Mason	Non-fiction book asking readers to describe various materials through observing, feeling and comparing.	2-PS1-1
A Rock is Lively	Dianna Hutts Aston	A beautiful book about various rocks and their observable properties.	2-PS1-1
Matter: See it, Touch it, Taste it, Smell it	Darlene Stille	The states of matter (solids, liquids, and gasses) are explained and demonstrated. Includes an experiment to try.	2-PS1-1 2-PS1-2
What is the World Made of? All about Solids, Liquids, and Gasses	Kathleen Zoehfeld	Uses simple, fun diagrams to explain the difference between solids, liquids and gasses. Includes a section with experiments designed to encourage further exploration and introduce record keeping.	2-PS1-2
What's the Matter in Mr. Whiskers' Room?	Michael Ross	Using seven science stations, Mr. Whiskers encourages his kids to use all their senses to make observations and draw conclusions.	2-PS1-1 2-PS1-2
If I Built a Car	Chris Van Dusen	A little boy relates all of the wonderful things about the car he plans to design, including safety features, a pool, a robot driver, and the ability to go underwater and fly through the air.	2-PS1-2 2-PS1-3 K-2ETS1-1
Iggy Peck, Architect	Andrea Beaty	Iggy has one passion: building. When his second-grade teacher declares her dislike of architecture, Iggy faces a challenge. He loves building too much to give it up!	2-PS1-3 K-2-ETS1-2
Build it! Structures, Systems and You	Adrienne Mason	Explores the function of structures, the materials they're made of, how their parts are joined together and more.	2-PS1-3
Melting Matter	Amy Hanson	This book describes what happens when objects experience different conditions (e.g. when an ice cream cone gets hot).	2-PS1-4
Joe, Joe the Wizard Brews up Solids, Liquids, and Gasses	Eric Braun	Joe Joe has a problem. His spell to turn homework into chocolate bars has gone to syrup! Readers learn how solids, liquids, and gasses help Joe Joe with his mess.	2-PS1-4
The Tiny Seed	Eric Carle	This classic story of the life cycle of a flower is told through the adventures of a tiny seed.	2-LS2-1
The Curious Garden	Peter Brown	While out exploring one day, a little boy discovers a struggling garden and decides to take care of it. As time passes, the garden spreads throughout the dark, gray city, transforming it into a lush, green world.	2-LS2-1
One Bean	Anne Rockwell	What happens when you plant just one little bean? An experiment unfolds in this first science book about planting and observation. Walk step-by-step through a plant's growth cycle.	2-LS2-1

Book Title	Author	Description	Standard
Who will Plant a Tree?	Jerry Pallotta	A glowingly illustrated meditation on the interconnectedness of Earth's creatures. Each page features an animal in a different habitat that, by simply going about its everyday activities, unknowingly plants a tree.	2-LS2-2
From Bird Poop to Wind: How Seeds Get Around	Ellen Lawrence	Informational book that introduces young readers to the many different ways that plants disperse their seeds.	2-LS2-2
Flip, Float, Fly! Seeds on the Move	JoAnn Macken	Presents clear pictures of the featured seeds in their natural dispersals, from tumbleweeds rolling across a Western landscape to coconuts dropping into a tropical sea.	2-LS2-2
The Busy Tree	Jennifer Ward	Rhyming text describes a tree's activities from its roots to its branches. Acorns nibbled by chipmunks, ants scurrying across a trunk, a spider spinning a web—everything adds up to a “busy tree.”	2-LS2-2
Under One Rock: Bugs, Slugs, and Other Ughs	Anthony Fredericks	Focuses on the whole community of neighbors where the ground beneath a big old rock is home to them all.	2-LS4-1
Cactus Hotel	Brenda Guiberson	A story about a desert, a giant cactus, and the animals who live in it.	2-LS4-1
In the Small, Small Pond	Denise Fleming	A frog's-eye view of life in a pond throughout the seasons.	2-LS4-1
Fossil	Claire Ewart	A young girl finds a fossil, and a day in the life of a pterosaur unfolds. The pterosaur finally lives out its natural life, and layers of Earth and time transform the creature into a fossil.	2-ESS1-1
The Mystery of Round Rocks	Mark Meierhenry	While exploring their grandfather's farm, Max and Hannah discover hundreds of round rocks piled up in the corner of a field. The children seek out Grandpa to learn how the rocks got there and why the rocks are round.	2-ESS1-1
The Magic School Bus Blows its Top: A Book About Volcanoes	Gail Herman	Mrs. Frizzle and her class visit an underwater volcano that eventually creates an island.	2-ESS1-1
Soil Erosion and How To Prevent It	Natalie Hyde	Describes weathering, erosion, and deposition and kid-friendly steps to preventing erosion.	2-ESS1-1 2-ESS2-1
How do Wind and Water Change Earth?	Natalie Hyde	Explains how the shape of Earth is changed by weathering and erosion, the breaking down of rocks and minerals, which are then carried from one place to another by water, ice, wind, and gravity.	2-ESS2-1 2-ESS2-2
Land and Water: Landforms and Bodies of Water	Evie Bine-Stock	Learn major land and water forms, he or she will be amazed at the beauty and variety on planet Earth	2-ESS2-1 2-ESS2-2
Earth's Landforms and Bodies of Water	Natalie Hyde	This informative book explains how Earth is covered by landforms and bodies of water, all of which change shape over time.	2-ESS2-2 2-ESS2-3

Book Title	Author	Description	Standard
Follow the Water from Brook to Ocean	Arthur Dorros	Describes how water shapes the earth and why it is important to keep our water clean.	2-ESS2-2 2-ESS2-3
All the Water in the World	George Ella Lyon	With occasional rhymes, the short, poetic lines are conversational and instructive and evoke a sense of mystery about the water cycle.	2-ESS2-3
Water: Up, Down, and All Around	Natalie Rosinsky	Describes the water cycle and the importance of water, explaining evaporation and condensation, dew and frost, and the three states of water.	2-ESS2-3
Water is Water: A book about the Water Cycle	Miranda Paul	This spare, poetic picture book follows a group of kids as they move through all the different phases of the water cycle.	2-ESS2-3
A Box Story	Kenneth Kit Lamug	Invites the reader to look at things in a different way. With the use of hand drawn images, you are taken through simple thought provoking ideas about a box and how it is not just a box.	K-2-ETS1-1 K-2-ETS1-2
Roberto, the Insect Architect	Nina Laden	Roberto the termite wants to be an architect. Discouraged by his family and friends, he decides to follow his dream to the big, bug city. There he meets a slew of not-so-creepy, crawly characters who give him the courage to build a community for all.	K-2-ETS1-2
Solutions for Cold Feet and other Little Problems	Karey Sookocheff	Solutions for Cold Feet is a sweet and gently humorous look at practical and creative answers for all the little daily problems in one young girl's life, including her exuberant and pesky dog.	K-2-ETS1-3
Not a Stick	Antoinette Portis	Begins with a little pig holding a long, forked object. An unenlightened voice offstage suggests, "Hey, be careful with that stick." The pig corrects the false impression and demonstrates the item's many uses.	K-2-ETS1-3
Beautiful, Oops!	Barney Salzberg	An increasingly complex series of scenarios celebrates random accidents, encouraging artistic experimentation rather than discouragement.	K-2-ETS1-3

Science Literature: Third Grade

Book Title	Author	Description	Standard
Tug of War: All About Balance	Kristen Hall	When the bigger Beasties take on the smaller Beasties in a game of tug-of-war, they soon learn that size matters.	3-PS2-1
Equal Shmequal	Virgina Kroll	What does it mean to be equal? Mouse and her friends want to play tug-of-war but they can't figure out how to make teams that are equal. Nothing works until Mouse starts thinking mathematically.	3-PS2-1
Just a Little Bit	Ann Tompert	When an elephant and a mouse try to play on a seesaw, they need help from a vast number of animal friends to balance the scales.	3-PS2-1 3-PS2-2
First Science: Motion!	Kay Manolis	Children will get an introduction to the laws of motion and learn about speed, friction, action, and reaction.	3-PS2-2
Magnet Max	Monica Hughes	Magnet Max loves experimenting with magnets. He knows all about how they work and loves using them to attract new types of things. But when he shows them to his friend Nick, the other boy is baffled. Join Max and Nick as they explore the science behind the magic.	3-PS2-3
Magnets: Pushing Together, Pulling Apart	Natalie Rosinsky	Compasses and magnetite, magnetic poles and motors - learn about how magnets affect our lives.	3-PS2-3
What Makes a Magnet?	Franklyn Branley	Why does a magnet pick up a paper clip but not a leaf or a penny? How can the whole world be a magnet? Follow the step-by-step instructions about how to make your own magnet, and then find out for yourself what makes a magnet!	3-PS2-4
Magnets	Josie Stewart	Very simple photographic book invites the reader to predict and test theories of magnetic forces on common objects.	3-PS2-4
To be Like the Sun	Susan Swanson	Within every tiny seed lies the secret of what's to come. First a shoot, then a stem, a leaf, a bud--and finally a brilliant sunflower reaching high for the sun.	3-LS1-1
A Butterfly is Patient	Dianna Aston	From iridescent blue swallowtails and brilliant orange monarchs to the world's tiniest butterfly and the largest, an incredible variety of butterflies are celebrated here in all of their beauty and wonder.	3-LS1-1
A Tower of Giraffes	Anna Wright	A drove of pigs, a romp of otters, an ostentation of peacocks, and a tower of giraffes...This clever book introduces young readers to some of the words we use to refer to animals in a group.	3-LS1-1
The Honeybee Man	Lela Nargi	Explore the inner workings of Fred's beehive.	3-LS2-1 3-LS4-2
999 Tadpoles	Ken Kimura	"We'll have to move, the pond is too small," says Mother. But moving a family of 999 young frogs is fraught with danger! Never underestimate the wits of 999 young frogs!	3-LS2-1

Book Title	Author	Description	Standard
Animal Teams: How Amazing Animals Work Together in the Wild	Charlotte Milner	This non-fiction book explains how animals work together to survive and thrive in the wild.	3-LS2-1
Grandfather's Nose: Why we all Look Alike or Different	Dorothy Patent	The story of the discovery of genetic science and the details of heredity covered in depth. Through the use of cartoon-like illustrations, complicated ideas about heredity and genetics are described.	3-LS3-1 3-LS4-2
Shell, Beak, Tusk: Shared Traits and the Wonders of Adaptation	Bridget Heos	We think of evolution as a tree with branches that make clear, linear sense—with one animal and its traits clearly derived from one that came before it genetically. But what about animals who share key traits but aren't on the same family tree? This is called convergent evolution, and it's the big idea that Bridget Heos tackles in a kid-friendly way	3-LS3-2 3-LS4-2
Gregor Mendel: The Friar who Grew Peas	Cheryl Bardoe	Readable text describing a scientist whose physical and educational needs led him to religious life, but whose curiosity about inherited traits caused him to become the father of genetics.	3-LS3-1 3-LS3-2
Crawdad Creek	Scott Sanders	Discover the treasures that are a part of Crawdad Creek. While panning for gold, two young naturalists find different treasures, fossils from ages ago and an arrowhead left by people who may have once also visited this same creek.	3-LS4-1
Dinosaur bones	Aliki	Explains the events that lead to the discovery of dinosaur fossils, the scientists who mapped the evidence of fossils and shared their discoveries with the rest of the scientific community	3-LS4-1
Dear fish	Chris Gall	Peter wants to have some fish over for a visit, but what happens when the creatures of the sea take him up on his offer? Something fishy, of course! At first, their visit is all fun and games, but then, things really start to get out of hand.	3-LS4-3
The wump world	Bill Peet	The story of a far off planet- lush and green and untouched- where the Wumps live. Martian creatures land on Wump World, forcing the Wumps to hide while they tear up and pollute their planet.	3-LS4-3
Arctic lights, arctic nights	Debbie Miller	Chronicles the physical and environmental changes that take place in Fairbanks Alaska from the summer solstice throughout the year. Describes the changes in the physical environment and the effects of these changes on the wildlife of the region.	3-LS4-4
Cloud dance	Thomas Locker	Journey across the heavens through thick cumulus clouds, wispy cirrus clouds, and wide stratus clouds as they dance through every season of the year.	3-ESS2-1
Weather forecasting	Gail Gibbons	A behind-the-scenes look at a modern weather station answers basic questions kids ask most, and makes weather forecasting more fun and accessible than ever.	3-ESS2-1

Book Title	Author	Description	Standard
On the same day in March: A tour of the world's weather	Marilyn Singer	What the weather is like on March 17th in spots around the world.	3-ESS2-2
Recess at 20 below	Cindy Aillaud	In Alaska, it is recess as usual at 20 below zero. Join real students as they trudge to school in the dark, bundle up for snowy fun, and share what it is like to live in a cold and beautiful place.	3-ESS2-2
Planting the trees of Kenya: The story of Wangari Mathaai.	Claire Nivola	Tells the story of a Kenyan activist who plants trees to combat the drought and erosion in her town.	3-ESS3-1
Bartholomew and the oobleck	Dr. Seuss	This entertaining tale about a king who makes a new type of precipitation fall from the sky can serve as a great conversation-starter about designing solutions to weather-related hazards.	3-ESS3-1
Over in the wetlands: A hurricane-on-the-bayou story.	Caroline Rose	Both people and animals were devastated by Katrina, but we forget about the effect storms have on our non-human friends. Read to discover how animals prepare for a hurricane and what they find when they emerge after the storm.	3-ESS3-1
On a beam of light: A story of Albert Einstein	Jennifer Berne	Provides an overview of Einstein's life and how his ideas shaped scientific thinking worldwide. Could be used to jumpstart a conversation on portraying complex ideas in a simple fashion.	3-5-ETS1-1
The Dreamer	Sung Na	This pig dreams of flying! He develops flight plans, builds experimental contraptions, and has far-flung adventures, but at the end of the day, his favorite thing to do is sit and watch for those he loves best: birds.	3-5-ETS1-1 3-5-ETS1-2
Galimoto	Karen Williams	Kondi is determined to make a galimoto—a toy vehicle made of wires. His brother laughs at the idea, but all day Kondi goes about gathering up the wire he needs. By nightfall, his galimoto is ready for the village children to play with.	3-5-ETS1-2
Calpurnia Tate, girl vet series	Jacqueline Kelly	In Calpurnia Tate, Animal Doctor in Training, Callie Vee, Travis, and Dr. Pritzker help animals big and small.	3-5-ETS1-2

Science Literature: Fourth Grade

Book Title	Author	Description	Standard
Roller coaster! Motion and acceleration	Paul Mason	This exciting book puts the reader in the shoes of a roller coaster designer. Full-color photographs, bold print words, and insets reveal the forces that affect roller coaster motion.	4-PS3-1
Meet the orchestra	Ann Hayes	This lyrical introduction to the orchestra begins with animal musicians slowly gathering for the evening performance. Each instrument of the orchestra is explained, with clear definitions as well as information on how each one sounds.	4-PS3-2
Clang! Ernst Chladni's Sound Experiments	Darcy Pattison	This story provides a glimpse at the life of Ernst Chladni, the Father of Acoustics. It's an amazing example of how scientists collaborate internationally. The story is based on Chladni's own description of the event.	4-PS3-2
Temperature: Heating up and cooling down	Darlene Stille	A blanket isn't hot. So how does a blanket keep you warm? Find the answer to this and other hot facts in this simple introduction to temperature and thermal energy.	4-PS3-2
Energy makes things happen	Kimberly Bradley	Includes information about the fueling of both objects and people; explains that energy gives both heat and light, that all activities require energy, and that energy can be transferred from one thing to another.	4-PS3-2
Move on up that beanstalk, Jack! The fairy-tale physics of forces and motion	Thomas Troupe	When times are tough, you pull yourself up and push yourself to the top ... of a beanstalk ... where you might get schooled in forces and motion by a STEM-loving giant named Dennis.	4-PS3-3
Energy Island: How one community harnessed the wind and changed their world	Allan Drummond	The ordinary citizens of Samsø have accomplished something extraordinary—in just ten years they have reduced their carbon emissions by 140%. A narrative tale and a science book in one, this inspiring story proves that with a little hard work and a big idea, anyone can make a huge step toward energy conservation.	4-PS3-4
On a beam of light: A story of Albert Einstein	Jennifer Berne	From a boy endlessly fascinated by the wonders around him, Albert Einstein ultimately grows into a man of genius recognized the world over for profoundly illuminating our understanding of the universe.	4-PS3-4
Energy: Physical science for kids	Andi Diehn	Young readers discover different forms of energy, including heat, light, and chemical energy, that keep the world working and moving.	4-PS3-2 4-PS3-4 4-PS4-1
Sound and light waves	Karen Kenney	Much of what you experience—from the things you see to the sounds you hear—travels to you in waves. But how do sound and light waves work?	4-PS4-1
Does an owl wear eyeglasses?	Harriet Ziefert	A series of goofy questions about the visual capacity of various animals. Simple, clear explanations about the eyesight of these animals lead into an exploration of why some people need glasses, and other vision-related conditions and products.	4-PS4-2

Book Title	Author	Description	Standard
Why Don't Cars Run on Apple Juice?	Kira Vermond	[Specific selections]. Answers questions about why water looks brown or blue, discusses light refraction and waves. With help from a slew of scientists, author Kira Vermond serves up the answers to more than 50 quizzical queries in a fun and engaging style.	4-PS4-2
Energy: Building blocks of physical science	Joseph Midthun	This graphic nonfiction book introduces energy, including its forms and uses.	4-PS3-4 4-PS4-3
Hello Ruby	Linda Liukas	Armed with four scraps of paper, Ruby uses her analytic skills to draw a map of the imaginary world where the gems are hidden. Involves a loose tie-in to a host of coding concepts, such as sequencing, patterns, loops, and pattern recognition.	4-PS4-3
Grace Hopper: Queen of computer code	Laurie Wallmark	Grace Hopper coined the term "computer bug" and taught computers to "speak English." Throughout her life, Hopper succeeded in doing what no one had ever done before. Delighting in difficult ideas and in defying expectations, the insatiably curious Hopper truly was "Amazing Grace"	4-PS4-3
A seed is sleepy	Dianna Aston	Describes the diverse and complex world of seeds and their adaptations for survival.	4-LS1-1
What if you had animal teeth?	Sandra Markle	A fun exploration of how a child would adapt to having various types of animal teeth.	4-LS1-1
Animal sight	Kristen Hall	From a five-part series on animal sense. In this series beginning readers discover the interesting ways that animals use their senses. Each book focuses on one of the five senses and describes how a variety of animals use that sense.	4-LS1-2
Rain	Manya Stojic	The animals of the African savanna use their senses to predict and enjoy rain.	4-LS1-2
The pebble in my pocket: A history of our Earth	Meredith Hooper	Tells the story of Earth's geologic history by tracing the environmental and physical changes that have taken place to a single pebble found by a child.	4-ESS1-1
A rock is lively	Dianna Aston	An incredible variety of rocks are showcased in all their splendor.	4-ESS1-1
My pet rock, Greg Granite	Jerry Brotzge	This story follows the adventurous life of Greg, an unassuming piece of granite with a very rocky beginning! Greg Granite is an educational beginner to the world of geology.	4-ESS1-1
Erosion: Changing Earth's surface	Koontz	A non-fiction read aloud that discusses the natural forces of erosion and how they shape the land.	4-ESS2-1
A chip off the old block	Jody Shaffer	Rocky gets tossed by The Wave and driven away at Devil's Tower--but he's determined not to allow these pitfalls to chip away at his confidence. Rather than feeling crushed, he keeps on rolling, hoping to become the rock-star he knows he's meant to be.	4-ESS2-1

Book Title	Author	Description	Standard
What shapes the land?	Kalman	Presents various landforms and the processes that shape them, some rapid like volcanic eruptions, and some slow, like erosion and weathering.	4-ESS2-1
Geologists at work	Philip Wolny	The vibrant imagery, highlighted vocabulary, and other learning tools in this resource will give students an overview of different geological disciplines, inform them of the everyday problems these scientists must solve, and highlight tools and methods they use	4-ESS2-2
Grand Canyon	Jason Chin	Weave in and out of time as perfectly placed die cuts show you that a fossil today was a creature much long ago, perhaps in a completely different environment. Complete with a spectacular double gatefold, an intricate map and extensive back matter.	4-ESS2-1 4-ESS2-2
Follow that map! A first book of mapping skills	Scot Ritchie	Explains and demonstrates key mapping concepts. Follows Sally and her friends as they search for Max and Ollie, a mischievous dog and cat on the lam from the backyard.	4-ESS2-2
Olivia's birds: Saving the Gulf	Olivia Bouler	One 11 year-old girl can make a difference-as budding ornithologist and artist Olivia Bouler has proven, single-handedly raising over \$175,000 for the Gulf oil spill recovery.	4-ESS3-1
Buried sunlight: How fossil fuels have changed the Earth	Molly Bang	What are fossil fuels, and how did they come to exist? This stunning book explains how coal, oil, and gas are really "buried sunlight," trapped beneath the surface of our planet for millions of years.	4-ESS3-1
Extreme Weather: Surviving Tornadoes, Sandstorms, Hailstorms, Blizzards, Hurricanes, and More!	Thomas Kostigen	Covers different natural disasters as well as what to do before, during, and after, which may prepare kids and give them peace of mind.	4-ESS3-2
Blitzed by a blizzard	Joyce Marovics	Combining scientific explanations of the disasters along with gripping narrative descriptions, readers will learn how these survivors lived to tell their stories; each book also discusses advances in disaster prevention and safety procedures.	4-ESS3-2
Electrical Wizard: How Nikola Tesla lit up the world	Elizabeth Rusch	Here is the story of the ambitious young man who brought life-changing ideas to America, despite the obstructive efforts of his hero-turned-rival, Thomas Edison. Nikola Tesla was a revolutionary ahead of his time.	3-5-ETS1-1
The marvelous thing that came from a spring	Gilbert Ford	One day, a spring fell from the desk of Richard James, an engineer and a dreamer. Its coils took a walk...and so did Richard's imagination. With the help of his wife, Richard took this ordinary spring and turned it into America's most popular toy!	3-5-ETS1-2
Emma Ren: Robot engineer	Jenny Lu	Emma Ren builds a battle robot for her class competition, however, her partner Jeremy thinks that girls are not as good at building things. Follow Emma's passion and perseverance for building.	3-5-ETS1-2 3-5-ETS1-3

Book Title	Author	Description	Standard
Coppernickel, The Invention	Wouter Van Reek	With imagination, humor, and a bit of danger, Van Reek gives children credit for being bright enough to understand multiple levels of graphic representation.	3-5-ETS1-2
Ten Birds	Cybele Young	Ten birds on one side of a bridge try to figure out how to get to the other side. The first nine birds each come up with a technical solution. Finally, there is only one bird left.	3-5-ETS1-3

Science Literature: Fifth Grade

Book Title	Author	Description	Standard
Matter: Physical science for kids	Andi Diehn	Part of a series that tackles different kinds of physical science, Matter offers pictures and simple observations and explanations. Quick STEM activities such as weighing two balloons to test if air is matter help readers cross the bridge from conceptual to experiential learning and provide a foundation of knowledge that will prove invaluable.	5-PS1-1
Professor Astrocat's atomic adventure	Dominic Walliman	Professor Astrocat takes the reader on a journey through the incredible world of physics. Learn about energy, power and the building blocks of you, me and the universe.	5-PS1-1
You are Stardust	Elin Kelsey	Introduces the idea that every tiny atom in our bodies came from a star that exploded long before we were born and continues on to explain that we are intimately connected to the natural world.	5-PS1-1
What's smaller than a pygmy shrew?	Robert Wells	Compares the size of a tiny animal (a pygmy shrew) to an insect (a ladybug), which is in turn contrasted with one-celled animals, bacteria, molecules, atoms, and subatomic particles.	5-PS1-1
Super science: Matter matters	Tom Adams	This book explores the elements of the science of matter in a fun, straightforward way. It includes comic-book style illustrations and explores atoms, molecules, reactions, elements, radioactivity, and other aspects of chemistry.	5-PS1-2 5-PS1-3
The Solid Truth About States of Matter with Max Axiom, Super Scientist	Agnieszka Biskup	This book features a superhero scientist and covers matter, atoms and molecules, solids, liquids, and gasses, melting, boiling and freezing, evaporation and condensation.	5-PS1-2 5-PS1-3
The Nature of Matter	Debra K Housel	Everything is made of matter! Learn all about matter of solids, liquids, and gasses in this informative science reader.	5-PS1-3
Wonder life with elements: The periodic table personified	Bunpei Yorifuji	Why bother trudging through a traditional periodic table? In this periodic paradise, the elements are people too. And once you've met them, you'll never forget them.	5-PS1-3 5-PS1-4
Thing Explainer: Complicated Stuff in Simple Words	Randall Monroe	Uses line drawings and simple words to provide explanations for some of the most interesting stuff there is, including the pieces everything is made of (the periodic table).	5-PS1-4
Why Can't I Jump Very High? A Book About Gravity	Kamal Prasad	A simple question asked on a basketball field sparks a discussion on gravity that carries on into the classroom. Includes demonstrations, which can be easily duplicated at home or in the classroom.	5-PS2-1
Gravity	Jason Chin	How do we stay put on our planet and not float away into outer space? What makes things fall to the ground from high places? Introduces readers to the concept of gravity, presenting the information in highly understandable language.	5-PS2-1
Physical Science: Gravity	Alexa Kurzius	Gravity is one of the most important forces in the universe - invisible, but vital to our existence.. But how does it work?	5-PS2-1

Book Title	Author	Description	Standard
Pass the energy please	Barbara McKinney	Each of nature's creatures "passes the energy" in its own unique way. In this upbeat rhyming story, the food chain connects herbivores, carnivores, decomposers, and plants together in a fascinating circle of players.	5-PS3-1
Ocean sunlight: How tiny plants feed the seas	Molly Bang	Explains how energy from the sun moves from tiny phytoplankton up to the largest whale in the deep sea food web.	5-PS3-1
Understanding photosynthesis with Max Axiom, super scientist	Liam O'Donnell	Follows the adventures of Max Axiom as he explains the science behind photosynthesis. Written in graphic-novel format.	5-LS1-1
Be a friend to trees	Patricia Lauber	Demonstrates the process of photosynthesis, step-by-step: how trees make food in their leaves and how they release the oxygen we need to breathe, as well as other information on why we need trees to survive.	5-LS1-1
What if there were no gray wolves?	Suzanne Slade	Deciduous forest ecosystems can be found on nearly every continent. Countless animals and plants live in them. So what difference could the loss of one animal species make? Follow the chain reaction, and discover how important gray wolves are.	5-LS2-1
A handful of dirt	Raymond Bial	Soil may not be alive, but multitudes of microscopic creatures are, battling it out in an eat-or-be-eaten world. These tiny creatures, provide food for the insects that in turn feed the reptiles and mammals that live in and above the soil.	5-LS2-1
The sun	Seymour Simon	Explores the wonders of the sun, from the constant nuclear explosions at its core to the sea of boiling gasses that forms the surface	5-ESS1-1
True books: The sun	Elaine Landau	Describes the sun as a star and as the force that makes life on Earth possible, and discusses how scientists study the sun.	5-ESS1-1
Somewhere in the world right now	Stacy Schuett	A book that is perfect for sparking an interest in geography, emphasizing the amazing concept that at the same moment we are getting ready to sleep, other people are starting a new day.	5-ESS1-1 5-ESS1-2
Shadowman	Garett Zopfi	This book follows Shadowman, a being who lives lost in the shadows without a guiding light to set him free. Struggling with being defined by others, Shadowman has to embrace his own blinding nature in order to explore the world outside.	5-ESS1-2
The sun is kind of a big deal	Nick Seluk	This funny and factual picture book explains every part of the Sun's big job: keeping our solar system together, giving Earth day and night, keeping us warm, and more.	5-ESS1-2
The glow-in-the-dark night sky book	Clint Hatchett	This unique, convenient guide to the night sky has star maps that shine after exposure to light. The maps, arranged by season, cover constellations of the Northern Hemisphere.	5-ESS1-2
Wind, Weather and the Atmosphere	Marylou Kjelle	[Specific Selections]. Explains how events that occur miles above Earth's surface produce different types of weather. Studies sunlight, air temperature, and atmospheric pressure.	5-ESS2-1

Book Title	Author	Description	Standard
The Four Spheres of Earth	Paul Larson	The Four Spheres of Earth is a comprehensive and educational guide to the four interconnected spheres of the Earth: the geosphere, the hydrosphere, the atmosphere, and the biosphere.	5-ESS2-1
Why are the ice caps melting?	Anne Rockwell	Explains the greenhouse effect, the sources of global warming, and the effects of global warming.	5-ESS2-1
Stickmen's guide to Earth's atmosphere in layers	Catherine Chambers	The Stickmen will take you on a tour of satellites in orbit, aircraft riding jet streams, and storms in the lowest layer of Earth's atmosphere.	5-ESS2-1
Every last drop: Bringing clean water home	Michelle Mulder	Explores why the world's water resources are at risk and how global communities are finding ways to access water.	5-ESS2-2
One well: The story of water on Earth	Rochelle Straus	Looking at all the water on Earth- "One Well" into which all life dips to survive-Strauss presents a timely discussion of the use and abuse of a not-so-limitless resource.	5-ESS2-2
The Lorax	Dr. Seuss	Dr. Seuss's beloved story teaches kids to treat the planet with kindness and stand up and speak up for others.	5-ESS3-1
How Harmful are Fossil Fuels?	Catherine Chambers	Examines fossil fuels, what they are and how they are gathered, what they are used for, and what potential threats they pose.	5-ESS3-1
Hand to Earth: Saving the Environment	Jessica Cohn	Learn about the various ways the environment needs our help and what you can do to reduce your carbon footprint. Readers will learn about the effects of pollution, fossil fuels, renewable and non renewable resources, deforestation, and recycling through interesting images and charts and informational text.	5-ESS3-1
A Hot Planet Needs Cool Kids	Julie Hall	Kids, parents, and teachers will find the very latest information about the causes and effects of climate change, how people are working to reduce it, and ways kids and their families and schools can join the fight.	5-ESS3-1
Spin the golden lightbulb	Jackie Yeager	11 year-old Kia is determined to build her 67 inventions, but she won't have the opportunity to unless she earns a spot at PIPS, the Piedmont Inventor's Prep School. She travels to Camp Piedmont to compete against forty-nine other state teams to earn her place at the best inventor's school.	3-5-ETS1-1 3-5-ETS1-2
Ada Byron Lovelace and the thinking machine	Laurie Wallmark	Ada Lovelace develops her creativity through science and math. Ada writes the world's first computer program in order to demonstrate the computer's capabilities.	3-5-ETS1-1 3-5-ETS1-2
Save the planet: Keeping water clean	Courtney Farrell	This book sends the reader on a fact-finding mission, posing an initial challenge and concluding with questions and answers.	3-5-ETS1-2 3-5-ETS1-3
Robotics Engineering and our automated world	Rebecca Sjonger	Readers learn how robotics engineers find new ways for robots to do work that would be dangerous, time-consuming, or impossible for humans.	3-5-ETS1-2 3-5-ETS1-3

Book Title	Author	Description	Standard
Notable Notebooks: Scientists and their writings	Jessica Fries-Gaither	Brings to life the many ways in which everyone from Galileo to Jane Goodall has used a science notebook, including to sketch their observations, imagine experiments, record data or just write down their thoughts.	3-5-ETS1-3

Science Literature: Sixth Grade

Book Title	Author	Description	Standard
Scholastic Atlas of Space	Johanna Champagne	[Specific selections]. Budding astronomers will marvel at detailed, full-color illustrations of the universe. Concise captions provide middle-grade readers with valuable information to help them understand this vast and distant environment.	6-ESS1-1 6-ESS1-2 6-ESS1-3 6-ESS1-4
The Moon Book	Gail Gibbons	The Moon Book is a book with facts, diagrams and drawings that help children understand the basics of the moon. The book includes information about the moon's orbit, astronauts that have traveled to the moon, phases of the moon and more.	6-ESS1-1 6-ESS1-2
Astrophysics for young people in a hurry	Neil Degrasse Tyson	From the basics of physics to big questions about the nature of space and time, celebrated astrophysicist and science communicator Neil deGrasse Tyson breaks down the mysteries of the cosmos into bite-sized pieces.	6-ESS1-1 6-ESS1-2
Next time you see the moon	Emily Morgan	This book explains the science behind the shape of the Moon, day and night, and lunar phases.	6-ESS1-1
The rock factory: The story about the rock cycle	Jacqui Bailey	Explains the formation of rocks and minerals, and includes information on volcanoes.	6-ESS1-4 6-ESS2-2
Clues to the universe	Christina Li	The only thing Rosalind loves more than watching NASA launches with her dad is building rockets with him. When he dies unexpectedly, all Ro has left is an unfinished model rocket they had been working on together.	6-ESS1-1 MS-ETS1-3
See you in the cosmos	Jack Cheng	In this chapter book, 11 year old Alex Petroski is space-obsessed. He and his dog, Carl Sagan, take a journey toward family, love, hope, and awe in this funny and moving story.	6-ESS1-2 6-ESS1-3
Life as we knew it	Susan Pfeffer	Sixteen-year-old Miranda finds her world thrown into chaos when an asteroid hits the moon and shifts it out of orbit, closer to Earth.	6-ESS1-3 6-ESS3-2
Cosmos: The infographic book of space	Stuart Lowe	An engaging book of infographics depicting various concepts about space and the solar system, including planetary distances.	6-ESS1-2 6-ESS1-3
Rocks and Fossils: A Visual Guide	Robert Coenraads	Describes how plate tectonics works, how life evolved, how minerals, rocks, and fossils are formed, and even give clues that people on fossil investigations should look out for.	6-ESS1-4 6-ESS2-3
Fossils from lost worlds	Damien Laverdunt	Walk in the footsteps of the first fossil researchers to discover the earliest creatures on Earth, in this large format fact-filled picture book.	6-ESS1-4
DKfindout! Earth	DK	Discover the structure of the Earth, from its red-hot inner core to the mountains, deserts, and oceans that cover its surface. Learn why we have seasons, how the water cycle works, and why our population is growing.	6-ESS2-1 6-ESS3-4

Book Title	Author	Description	Standard
Pocket Genius: Rocks and Minerals	DK	Digs deep beneath the surface, informing young readers what each rock is made of, how they are formed and what they are used for, how to be a rock collector, and how to identify rocks and minerals. Also highlighting landmarks such as Devils Tower, Giant's Causeway, and Shiprock Pinnacle, this Pocket Genius title shows how rocks and minerals play a part in the formation of each.	6-ESS2-1
Planet Earth: What Planet are you on?	Simon Basher	This book sheds light on the rock we live on, from its mountains and oceans to the storms that whirl around it.	6-ESS2-1 6-ESS2-5 6-ESS2-6
Minerals (let's rock)	Richard Spilsbury	Explores how minerals form, erode, and are used.	6-ESS2-2 6-ESS2-3
Planet Earth/Inside Out	Gail Gibbons	Students will learn the layers of the earth. They also discover the specific properties of each layer. Lastly, Earth's crust is explored.	6-ESS1-4 6-ESS2-3
Mapping Oceans	Barbara Bakowski	Introduces maps and teaches essential mapping skills, including how to create, use, and interpret maps of oceans.	6-ESS2-3 6-ESS2-4
Come see the Earth turn: The story of Leon Foucault	Lori Mortensen	A sickly child, a poor student, and a medical school dropout, Léon Foucault seemed an unlikely candidate for greatness. But his ingenious experiment changed how we see the world.	6-ESS2-6
Over the mountains	Michael Collier	Provides students aerial photographs of real-world landscapes with detailed, scientific captions.	6-ESS2-2 6-ESS2-3 6-ESS2-5
Frozen Secrets: Antarctica Revealed	Sally Walker	Five chapters that tell the tale of Antarctica; Explore early explorations to recent research. The author explains how ice on the continent accumulated over thousands of years. From there, the book discusses changes Antarctica has faced over the years.	6-ESS2-6
Paper world: Planet Earth	Ruth Symons	Planet Earth uses ingenious paper cuts to reveal the amazing details of our planet, from bubbling volcanoes to rushing rivers to its boiling hot interior. With detailed art by paper-cut studio Bomboland, a fact-packed text, and flaps and die-cuts on every spread	6-ESS2-5 6-ESS3-2
Can a rock grow?	Audrey Sauble	Explore how rocks change over time. Discover different shaped rocks--and learn the answer to a key question: can a rock grow?	6-ESS3-1
Erosion: How Land Forms, How it Changes	Darlene Stille	Describes the process of erosion, including how the power of wind, water, and glaciers have changed the Earth's surface. Includes information on fossils.	6-ESS3-1
The Secret World of Weather	Tristian Gooley	Every cloud, every change in temperature, every raindrop, every sunbeam, every breeze reveals something about our weather—if you know what to look for. Before you know it, you'll be able to forecast impending storms, sunny days, and everything in between, all without needing to consult your smartphone.	6-ESS3-2

Book Title	Author	Description	Standard
Al Roker's Extreme Weather	Al Roker	Dive deep into a world of fascinating weather with everyone's favorite meteorologist, Al Roker!	6-ESS3-2
One plastic bag: Isatou Ceesay and the recycling women of the Gambia	Miranda Paul	What happens when a plastic bag breaks or is no longer needed? In Gambia, people simply dropped the bags and went on their way. One plastic bag became 2, then 10, then 100. Isatou Ceesay found a way to recycle the bags for her community.	6-ESS3-3 6-ESS3-4
Green City	Allan Drummond	In 2007, a tornado destroyed Greensburg, Kansas, and the residents were at a loss as to what to do next—they didn't want to rebuild if their small town would just be destroyed in another storm. So they decided they wouldn't just rebuild the same old thing; this time, they would build a town that could not only survive another storm, but one that was built in an environmentally sustainable way.	6-ESS3-3 6-ESS3-4
Jake and the Quake	Cary Sneider	When Jake and his friend Tony discover an oddly beautiful rock under the Golden Gate bridge, his life takes an entirely new direction. The boys team up with Melody, an 8th grader with a passion for geology, to figure out what the rock is made from, and how it was created and embedded in a sandstone cliff. That's when a major earthquake strikes and their lives literally spin out of control. The story is based on actual events during the quake that rocked San Francisco in 1989.	6-ESS3-1 6-ESS3-2
The Last Wild	Piers Torday	With humor, action, and heart, this epic middle grade novel encourages kids to be aware of the impact they have on the world around them.	6-ESS3-3
Mario and the whole in our sky	Elizabeth Rusch	Tells the story of Mario Molina, a modern-day hero who helped solve the ozone crisis of the 1980s.	6-ESS3-4 6-ESS3-5
Climate Action: What Happened and What We Can Do	Seymour Simon	The perfect introduction, not only to the dramatic effects of climate change, but to the solutions. Learn how our behavior and actions have led us to this point, hear from kids around the world dealing with extreme storms, wildfires, and sea level rise, and discover what people are doing to protect their communities.	6-ESS3-3 6-ESS3-5
What is climate change?	Gail Herman	Gail Herman presents both sides of the debate in this fact-based, fair-minded, and well-researched book that looks at the subject from many perspectives, including scientific, social, and political.	6-ESS3-5
Secret Engineer: How Emily Roebling built the Brooklyn bridge	Rachel Dougherty	After her engineer husband falls ill, Emily Roebling is left to secretly lead the construction of the Brooklyn Bridge.	MS-ETS1-1
Nick and Tesla's high voltage danger lab	Bob Pflugfelder	Twins Nick and Tesla have to build and invent their way out of danger in this exciting series.	MS-ETS1-1 MS-ETS1-2
The Templeton twins have an idea	Ellis Weiner	Twins John and Abigail are kidnapped in order to get their father to turn over one of his genius inventions.	MS-ETS1-1

Book Title	Author	Description	Standard
The book of mistakes	Corinna Luyken	An artist incorporates accidental splotches, spots, and misshapen things into her art, she transforms her piece in quirky and unexpected ways, taking readers on a journey through her process.	MS-ETS1-1
The Fourteenth Goldfish	Jennifer Holm	Jennifer Holm celebrates the wonder of science and explores fascinating questions about life and death, family and friendship, immortality . . . and possibility.	MS-ETS1-1
The science of breakable things	Tae Keller	When Natalie's science teacher suggests that she enter an egg drop competition, she thinks it could be the perfect solution to all of her problems. With the prize money, she can fly her botanist mother to see the miraculous Cobalt Blue Orchid. Her mother has been suffering from depression, and Natalie is positive that the flowers' magic will inspire her mom to fall in love with life again.	MS-ETS1-2 MS-ETS1-3
Exemplary Evidence: Scientists and their data	Jessica Fries-Gaither	Data supports conclusions; it can change people's minds; It is used to build theories that help humankind. Scientists all along have known this to be true: Data is powerful! Now, what will yours do?	MS-ETS1-3
Click'd	Tamara Stone	Allie Navarro can't wait to show her best friends the app she built at CodeGirls summer camp. By the second day of school, everyone is talking about CLICK'D. With all the data Allie is collecting, she has an even better shot at beating her archenemy, Nathan, at the upcoming youth coding competition. But when Allie discovers a glitch that threatens to expose everyone's secrets, she has to figure out how to make things right.	MS-ETS1-3 MS-ETS1-4
Solving for M	Jennifer Swender	A math journal can help Mika work out her problems, and not just the math ones. Seamlessly melds STEAM content with first loss in an honest and striking novel.	MS-ETS1-3 MS-ETS1-4
The last kids on Earth	Max Brallier	Ever since the monster apocalypse hit town, average thirteen year old Jack Sullivan has been living in his tree house, which he's armed to the teeth with catapults and a moat. But Jack alone is no match for the hordes of Zombies and Winged Wretches and Vine Thingies.	MS-ETS1-1 MS-ETS1-4
Max Einstein: The Genius Experiment	James Patterson	Max is a genius kid. She is recruited by a mysterious organization! Their mission: solve some of the world's toughest problems using science.	MS-ETS1-4

Science Literature: Seventh Grade

Book Title	Author	Description	Standard
The Basics of Cell Life with Max Axiom	Amber Keyser	The one-and-only Super Scientist discovers the earliest cells on Earth, shrinks to the size of a cell, and swims among molecules.	7-LS1-1 7-LS1-2 7-LS1-3
Cells: Constructing Living Things	Jodie Mangor	A look at animal and human cells, and the internal structures that allow them to obtain energy, get rid of wastes, grow, and reproduce	7-LS1-2
The Story of a Cell	Hannah George	This book discusses the important roles of organelles in a cell by using analogies and easy-to-understand concepts. It's a great educational tool for teachers, parents, and homeschoolers to explain the tiny world of cells in a creative way.	7-LS1-1 7-LS1-2 7-LS1-3
The Human Body: A book with Guts	Simon Basher	Meet the characters and processes that keep the human body chugging along. From the basic building blocks like Cell, DNA, and Protein, to Bones, Muscles, and all of the fun-loving Organs, readers will cozy up with the guys on the inside.	7-LS1-3 7-LS1-8 7-LS3-1
Have a Nice DNA	Francis Balkwill	Once upon a time you were very, very small. In fact, you were made of just one tiny cell. But the incredible thing about that tiny cell was that all the instructions to make you were hidden inside it. And all because of a very important chemical substance called DeoxyriboNucleic Acid--everyone calls it DNA.	7-LS1-1 7-LS1-2 7-LS3-1
The Universe in you: A Microscopic Journey	Jason Chin	Zooming in, past our skin to our cells, molecules, and atoms, all the way down to particles so small we can't even measure them.	7-LS1-1 7-LS3-1
Saving Sorya: Chang and the Sun Bear	Trang Nguyen	An Eisner-nominated middle grade graphic novel adventure based on a true story, in which a young conservationist overcomes the odds to save and return a sun bear to its natural habitat.	7-LS1-4 7-LS1-5
Cells to Body Systems: Science Doodles	Morgan Saied	Coloring to learn makes more concrete connections with the curriculum? It's not only fun and relaxing but peaks interest for longer than just reading!	7-LS1-3 7-LS1-6 7-LS1-7
Super Simple Biology: The Ultimate Bitesize Study Guide	DK	[Specific Selections]. From reproduction to respiration and from enzymes to ecosystems, every topic is fully illustrated to support the information, make the facts clear, and bring biology to life.	7-LS1-2 7-LS1-3 7-LS1-6 7-LS1-7
Illumanatomy	Kate Davies	Look inside the human body with the magic three-color lens and x-ray from head to toe to discover how your body works. Use the red lens to reveal the skeleton, the green to see the muscles working, and x-ray your organs with the blue lens.	7-LS1-3 7-LS1-7
Understanding Photosynthesis with Max Axiom	Liam O'Donnell	Join Max Axiom as he examines the life-sustaining process of photosynthesis and the relationship between plants and energy on Earth.	7-LS1-6 7-LS1-7
The Nervous System	Shirley Duke	Explores the different parts of the Nervous System, including the brain, spinal cord, and central nervous system.	7-LS1-8

Book Title	Author	Description	Standard
Building blocks of science: The nervous system	Joseph Midthun	Go deep inside the human body with this comic book-style tour of the nervous system. Friendly cells and organs provide clever explanations of the working of neurons, nerve impulses, and reflexes. They explain how emotions and memory are all controlled by the brain.	7-LS1-8
Phineas Gage: A Gruesome but True Story about Brain Science	John Fleischman	Complete with full-color photographs, a glossary, index, and a guide to resources, <i>Phineas Gage</i> will show you how your brain works through this fascinating case study as packed with neuroscience as it is shocking details.	7-LS1-8
Silent Spring	Rachel Carson	[Selections to be read aloud]. Silent Spring alerted a large audience to the environmental and human dangers of indiscriminate use of pesticides, spurring revolutionary changes in the laws affecting our air, land, and water.	7-LS1-5 7-LS2-4 7-LS2-5 7-LS4-5
The Brilliant Abyss	Helen Scales	[Selections to be read aloud]. A marine biologist vividly brings alive the extraordinary ecosystem of the deep ocean—a realm about which we know less than we do about the Moon—and shows how protecting it will benefit mankind.	7-LS1-5 7-LS2-1 7-LS2-3
Bees on the Roof	Robbie Shell	Sam needs to find a seventh-grade science fair project and a way to save the restaurant where his father works. When he decides to raise bees on a hotel roof in New York City, the complications multiply. Bee sting allergies, a great bee die-off, a rival team's cheating, and Sam's romantic feelings for a classmate make the bee project challenging.	7-LS2-2 7-LS2-4
Biodiversity	Carla Mooney	Explores the biodiversity of Earth's creatures, including the different ecosystems, the food web, and endangered species.	7-LS2-2 7-LS2-3 7-LS2-5
Marjorie saves the Everglades	Sandra Wallace	Marjory Stoneman Douglas hardly recognized the place that was her home when she returned from the war. Florida was rapidly disappearing—the rare orchids, magnificent birds, and massive trees disappearing with it. Marjory couldn't sit back and watch her home be destroyed—she <i>had</i> to do something.	7-LS2-1 7-LS2-3 7-LS2-4
Tree of Life	Rochelle Strauss	Explains how living things are classified into five kingdoms and how they tell us about all aspects of life on our planet.	7-LS2-4 7-LS2-5
Variation in Living Things	Robert Snedden	It seems obvious that a pig will never give birth to a puppy, but why should that be the case? This book explains the causes and limits of variation in species - such as blood groups and disposition to disease - and why it is crucial to their survival.	7-LS1-4 7-LS1-5
Pack of Dorks	Beth Vrabel	Tells the story of fourth grader Lucy as she deals with changing expectations and friendships at school while her home life is turned upside down when her baby sister is born with Down Syndrome.	7-LS3-1 7-LS3-2
Genetics: Breaking the code of your DNA	Carla Mooney	Introducing young readers to the fascinating world of genetics, this educational resource presents the main concepts of the science, including what a chromosome does, how DNA is structured, and how genetic inheritance works.	7-LS3-2 7-LS4-4

Book Title	Author	Description	Standard
Life Cycles: Science Skills Sorted		Plants, humans and other animals reproduce in all sorts of ways but all with the purpose of continuing their species. Using the ATOM method - Ask, Test, Observe and Measure - you'll discover why some animals lay eggs and try out some math to understand all about generations and how animals use them to avoid competition for food!	7-LS1-4 7-LS3-2
Living Fossils: Clues to the Past	Caroline Arnold	Meet the coelacanth, horseshoe crab, dragonfly, tuatara, nautilus, and Hula painted frog. All are living fossils, or modern-day animals that very closely resemble their ancient relatives. Why have they changed so little over time, while other animals evolved or went extinct?	4-LS4-1
You Share Genes with Me	23andme Inc.	This short little book simply explains how humans have certain percentages of their genes in common with other living things. It begins with plants which we have less genetic overlap with, then to insects and animals which we have more in common with.	7-LS4-2
Our Family Tree: An Evolution Story	Lisa Peters	Peters traces 'our' family tree from unicellular organisms right through to modern humans in this beautifully illustrated book	7-LS2-3 7-LS4-2
If you give a Mouse an iPhone	Ann Droyd	If you give a bored little mouse your iPhone, <i>even for ten minutes</i> , he's probably going to beam to some faraway place beyond time, space, and the sound of your pleading voice. And if he's that far gone, he won't have any idea what's going on around him, and he might end up missing out on all the <i>real</i> fun.	7-LS4-5
In the Womb: Animals	Michael Sims	Follows the developmental path of three different mammals utilizing 3-D and 4-D ultrasound. This incredible journey was first chronicled for the critically acclaimed National Geographic Channel special.	7-LS4-3
How we got to Now: Six Innovations that made the Modern World	Steven Johnson	How We Got to Now investigates the secret history behind the everyday objects of contemporary life.	7-LS4-5
The Stuff of Life	Mark Schultz	The graphic novel gives readers a complete introduction to the history of genetics that's as easy to understand as it is entertaining to read.	7-LS1-4 7-LS1-5 7-LS4-2
Double Helix	Nancy Werlin	Not only is Eli dealing with his mom being in a care home because of Huntington's disease, now that he's eighteen he has to decide if he wants genetic testing to determine whether he will be affected too.	7-LS3-1 7-LS4-4 7-LS4-5
How the Piloses Evolved Skinny Noses	Deb Kelemen	The piloses are a busy species, spending their days snuffling up the millibugs that keep them healthy and strong. But as the climate grows hotter, the millibugs disappear into deep underground tunnels. What happens to piloses who can no longer reach the millibugs? And what happens to the pilose species over time?	7-LS1-5 7-LS2-1 7-LS4-4 7-LS4-6
One Iguana, Two Iguana	Sneed Collard	A fascinating story of two species of iguana, one land-based and one marine, both of which developed from a single ancestor that reached the islands millions of years ago.	7-LS4-4 7-LS4-6

Book Title	Author	Description	Standard
Charles Darwin and the Theory of Natural Selection	Alan Hesse	Researched and created on the Galápagos Islands themselves, this historically, geographically and scientifically accurate graphic novel explains Darwin's theory in clear language, and provides thoroughly researched insight into Darwin's thought process and the pressures he had to deal with	7-LS4-6
Scene of the Crime: Tracking down Criminals with Forensic Science	HP Newquist	Packed with lively photos, classroom activities, and engaging prose, budding private eyes and scientists will be eager to find the answers to their questions. Learn about everything from the world's first autopsy in Ancient Rome to the role that DNA plays in solving crimes.	MS-ETS1-1 MS-ETS1-2
Tiny Stitches	Gwendolyn Hooks	Overcoming racism and resistance from his colleagues, Vivien ushered in a new era of medicine for children's heart surgery. Tiny Stitches is the compelling story of this incredible pioneer in medicine.	MS-ETS1-2 MS-ETS1-3
Race to the Bottom of the Earth	Rebecca Barone	In 1910, Captain Robert Scott prepared his crew for a trip that no one had ever completed: a journey to the South Pole. He vowed to get there any way he could, even if it meant looking death in the eye. Then, not long before he set out, another intrepid explorer, Roald Amundsen, set his sights on the same goal. Suddenly two teams were vying to be the first to make history—what was to be an expedition had become a perilous race.	MS-ETS1-2 MS-ETS1-3
Classified	Traci Sorell	Mary Golda Ross designed classified airplanes and spacecraft as Lockheed Aircraft Corporation's first female engineer. Find out how her passion for math and the Cherokee values she was raised with shaped her life and work.	MS-ETS1-3 MS-ETS1-4
From Here to There: Inventions that Changed the way the World Moves	Vivian Kirkfield	This collective biography tells the story of the experiments, failures, and successes of visionaries who changed the way the world moves.	MS-ETS1-1 MS-ETS1-4

Science Literature: Eighth Grade

Book Title	Author	Description	Standard
Exploring the Elements	Isabel Thomas	This artful and accessible guide to the periodic table - the ultimate reference tool for scientists worldwide - names all 118 chemical elements and helps young readers understand the remarkable ways we have learned to use them.	8-PS1-1 8-PS1-2
A Kids Guide to the Periodic Table of Elements	Edward Zovinka, PhD	Go in-depth with profiles on every element that provide all their I stats (like their atomic number, state, group, and more), as well as facts about the element and its discovery. Take what you know about science to a new level as you discover what makes the periodic table of elements so amazing.	8-PS1-1 8-PS1-2 8-PS1-3
Atoms and Molecules Meet	Rebecca Woodbury PhD	Children will learn that chemical reactions occur when atoms and molecules link together and also when molecules break apart. These chemical reactions must follow rules that state which atoms and molecules are able to link.	8-PS1-2
Stardust: The Chemistry of the Universe and You	Jennifer Marchant	It is the story of the atoms you are made of, written in a plain and engaging narrative style that will fascinate as well as educate the reader on these important scientific topics.	8-PS1-2
Chemical Reactions	Philip Wolny	Discusses the various kinds of chemical reactions that are possible. It gives everyday examples and an overview of the history of chemical research and famous chemists. It concludes with how current research and new developments are using chemistry and chemical reactions to save lives.	8-PS1-2 8-PS1-3 8-PS1-5
Essential Physical Science: Energy	Louise Spilsbury	Energy comes in many forms, and we depend on it in many ways. This book explores the different forms of energy, looking at how it can be transferred and used.	8-PS1-4 8-PS1-6
Radioactive! How Irene Curie and Lise Meitner Changed the World	Winfried Conkling	Presents the story of two women breaking ground in a male-dominated field, scientists still largely unknown despite their crucial contributions to cutting-edge research, in a nonfiction narrative that reads with the suspense of a thriller.	8-PS1-3 8-PS1-6 8-PS3-5
Energy, A True Book: Physical Science	Jacob Batchelor	Learn how energy affects the movement of objects through the air, the warmth we feel on our skin when the sun shines, and many concepts in between.	8-PS1-4 8-PS3-1
Forces and Motion at Work	Shirley Duke	Explore the relationship between the strength of a force and its effect on an object as well as the effects of forces in nature.	8-PS2-1 8-PS2-2
Newton's Laws: A Fairy Tale	Sarah Allen	Join young Kip on his adventure as he sets out to seek his fortune with nothing but a single apple to his name. Along the way, Kip encounters a wizard with mysterious plans and encounters situations that introduce us to some of the foundations of physics, including Newton's laws of motion.	8-PS2-1
Forces Make Things Move	Kimberly Bradley	When a toy car rolls or a boulder falls, it's force that makes them move. But what is force and how does it work? There are forces at work whenever you throw a ball, run up the stairs, or push your big brother off the couch.	8-PS2-2 8-PS2-4 8-PS2-5

Book Title	Author	Description	Standard
Projectile Science	Matthew Wood	In this book, readers will learn about the forces that act on the projectiles and how to calculate those forces to make educated predictions about where their homemade rockets and other projectiles will land.	8-PS2-2 8-PS2-3 8-PS2-4 8-PS2-5
The Attractive Story of Magnetism with Max Axiom	Andrea Gianopoulous	Follow along with Max Axiom, Super Scientist, as he travels back in time, shrinks to the size of an electron, and operates an electromagnetic crane.	8-PS2-3
The Cartoon Guide to Physics	Lary Gonick	[Selections/cartoons to be extracted]. Explains physical concepts- velocity, acceleration, explosions, electricity, and magnetism- in a simple, clear, and funny way.	8-PS2-3 8-PS3-1 8-PS3-2 8-PS3-4
How to Design the World's Best Roller Coaster in 10 Simple Steps	Paul Mason	Armed with your own imagination and some smart research, find out how you can transform a fantasy design into an actual dream product. You'll apply real-world design considerations to your ideas, refining your design to make it workable and achievable as it takes shape.	8-PS2-4 8-PS3-5 8-PS3-1 8-PS3-2
My First Book of Quantum Physics	Kaid-Sala Sheddad	Topics include: quanta, light, waves and particles, mass, photons, atoms, molecules, spectra, wave-particle duality, matter and antimatter, Schrödinger's cat, the Uncertainty Principle, probability waves, quantum entanglement, radioactivity and quarks.	8-PS1-4 8-PS1-5 8-PS2-1 8-PS3-5 8-PS4-1
Inventor, Engineer, and Physicist Nikola Tesla	Katie Marsico	Learn how Tesla's work eventually made turning on electrical devices as easy as flipping a switch!	8-PS2-3 8-PS3-2
What's your Potential?	Linden McNeilly	Discusses how objects store and exert energy.	8-PS3-2 8-PS3-5
Information Waves	Shirley Duke	Explores the science behind modern technology: TV, radio, Internet, cell phones/mobile devices, Earth to space communication, satellites, and GPS. Expands' understanding of light and sound as mechanisms of energy transfer and transfer of information between objects that are not in contact.	8-PS4-1 8-PS4-2 8-PS4-3
Black Holes and Time Warps: Einstein's Outrageous Legacy	Kip Thorne	[Selections to be read aloud]. In this masterfully written and brilliantly informed work of scientific history and explanation, Dr. Thorne, a Nobel Prize-winning physicist, leads us through an elegant tapestry of interlocking themes, coming finally to a uniquely informed answer to the great question: what principles control our universe and why do physicists think they know the things they think they know?	8-PS4-1 8-PS4-2
Invisible Universe	Alan Gould	Developed in partnership with NASA, this book introduces students to the electromagnetic spectrum and shows how astronomers can study the sky by detecting invisible light. After learning the types and properties of visible and invisible light, students tour our solar system and the universe investigating various celestial objects and the violent waves of radiation in space called gamma ray bursts.	8-PS4-1 8-PS4-2 8-PS4-3

Book Title	Author	Description	Standard
To Fly: The Story of the Wright Brothers	Wendie Old	Their story is portrayed here in brief, accessible chapters, beginning with their childhood fascination with flight and love of problem solving, then detailing their early experiments and dangerous trial runs in North Carolina, and ending with their successful flights of 1903.	8-PS4-2 8-PS4-3
The Reinvention of Edison Thomas	Jacqueline Klosterman	Eddy Thomas can read a college physics book, and he can spend hours tinkering with an invention. By trusting his real friends and accepting their help, Eddy uses his talents to help others and rethinks his purely mechanical definition of success.	MS-ETS1-1 MS-ETS1-2
Rube Goldberg: Simple, Normal, Humdrum, School Day	Jennifer George	This book features fourteen inventions, each depicting an interactive sequence whose purpose is to help Rube accomplish mundane daily tasks: a simple way to get ready for school, to make breakfast, to do his homework, and so much more.	MS-ETS1-1 MS-ETS1-2
Ethan Marcus Stands Up	Michele Hurwitz	Ethan Marcus has just done the unthinkable: refuse to stay seated during class. He's not causing a riot; he's not wandering around; he's just sick of sitting. His principal's suggestion- enter an invention competition. Told in the perspectives of multiple students, discover what really happened when one kid decided to take a stand against sitting down.	MS-ETS1-2 MS-ETS1-3
Hidden Figures: Young Readers' Edition	Margot Shetterly	This book brings to life the stories of Dorothy Vaughan, Mary Jackson, Katherine Johnson, and Christine Darden, who lived through the Civil Rights era, the Space Race, the Cold War, and the movement for gender equality, and whose work forever changed the face of NASA and the country.	MS-ETS1-3 MS-ETS1-4
The Boy Who Played with Fusion	Tom Clynes	[Selections to be read aloud]. Like many young children, Taylor Wilson dreamed of becoming an astronaut. Only Wilson mastered the science of rocket propulsion by the age of nine. When he was eleven, he tried to cure his grandmother's cancer—and discovered new ways to produce medical isotopes. Then, at fourteen, Wilson became the youngest person in history to achieve nuclear fusion, building a 500-million-degree reactor—in his parents' garage.	MS-ETS1-3 MS-ETS1-4