



# Bound to Stay Bound Books

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## Next Generation Science Standards for Grade 5

### Grade 5 Physical Science

**Amstutz, Lisa J. Discover Nanotechnology. (057606)** il. Have you ever wondered what would happen if scientists could change or control atoms, the smallest building blocks of the universe? Examine the science of nanotechnology with simple language and striking visuals that reinforce understanding. (08-11) Lerner 2017 (AR) \$29.38

**Bang, Molly. Ocean Sunlight: How Tiny Plants Feed The Seas. (088418)** il. Phytoplankton, great white sharks, and manta rays illuminate a grand food chain and the life cycles deep within our seas. (07-10) Blue Sky Press 2012 B+,K+,L,Q+,M,C,W+ (AR/RC) \$21.21

**Bang, Molly. Rivers Of Sunlight: How The Sun Moves Water Around The Earth. (088427)** il. The sun explains its role in the movement of water around the Earth, from the lifting of fresh water from the seas, to the movement of underwater currents that nourish the world's oceans. The sun has a hand in moving rivers of water in its liquid, gaseous, and solid states all around the Earth, enabling life to exist on our planet. But human beings are interfering in this natural cycle, unbalancing the amount of fresh water available. (04-08) Blue Sky Press 2017 B+,K+,L+,M+,W+ (AR/RC) \$21.21

**Baxter, Roberta. States Of Matter In The Real World. (098498)** il. Presents real-world examples to bring the concept of the states of matter to life in an approachable way. (09-12) Abdo 2013 L (AR) \$23.99

**Biskop, Agnieszka. Super Cool Chemical Reaction Activities With Max Axiom. (122473)** il. Super Scientist, Max Axiom, presents step-by-step photo illustrated instructions for conducting a variety of chemical reaction experiments and activities. (08-14) Capstone 2015 \$22.94

**Bonner, Hannah. Dining With Dinosaurs: A Tasty Guide To Mesozoic Munching. (132462)** il. Sure you know T-Rex was the meat-eating king and brontosaurus munched on leaves, but what else was on the dino dining menu during the Mesozoic era? Meet the 'vores: carnivores, piscivores, herbivores, insectivores, "trashivores," "sunivores," and omnivores like us. Readers will be surprised and inspired to learn about dino diets and they'll get to explore how scientists can tell which dinosaurs ate what just from looking at fossils! (07-10) National Geographic 2016 K+,L,Q (RC) \$21.21

**Challoner, Jack. Maker Lab: 28 Super Cool Projects: Build, Invent, Create, Discover. (597556)** il. Kid-safe experiments that use common household items. Grow geodes in eggshells, make a bouncing ball out of slime, build a rubber band solar system, and more. (08-12) DK Publishing 2016 B,L,C,W \$21.91

**Dakers, Diane. Earth's Cycles. (254655)** il. Explains the patterns and cycles created on Earth by the influence of the sun and the moon, as well as by the Earth's magnetic poles and the planet's rotation on an axis. (10-13) Crabtree 2015 (AR) \$15.59

**Doeden, Matt. Finding Out About Solar Energy. (282358)** il. Introduces students to how solar energy is produced and how it is used as an energy source that provides power for essentials and luxuries that they use every day and covers the pros and cons of using solar energy. (08-10) Lerner 2015 Q (AR/RC) \$27.47

**Fleisher, Paul. Ocean Food Webs In Action. (340944)** il. Seals, otters, oysters, fish, pelicans, and sharks are a few of the animals that make up an ocean food web. But did you know that almost all ocean creatures depend on algae to live? Or that bacteria, crabs, and lobsters break down dead plants and animals into nutrients? (07-11) Lerner 2014 Q (AR/RC) \$27.47

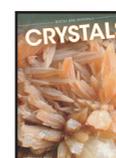
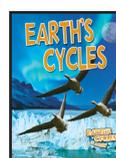
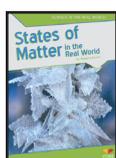
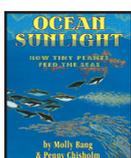
**Hirsch, Rebecca E. Crystals. (446804)** il. An introduction to crystals, including natural processes, how geologists study them, how they relate to daily life, and more. (08-12) Abdo 2015 Q (AR) \$23.99

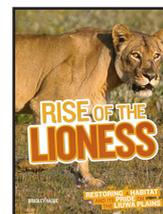
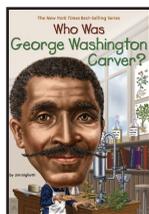
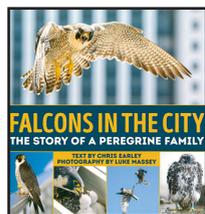
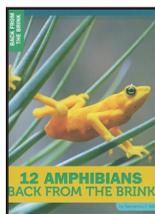
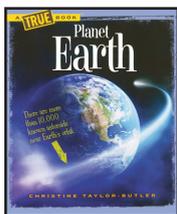
**Honders, Christine. What Is Gravity? (461409)** il. A study of the universal pulling force at work across space. (07-11) Britannica Ed Pub 2015 \$24.34

**Juettner Fernandes, Bonnie. Large Hadron Collider. (503830)** il. Describes the struggles and accomplishments in building the Hadron Super Collider, the tool that scientists use to understand how the universe first began. (08-11) Norwood House 2014 B,L,Q (AR) \$21.89

**Lindeen, Mary. Investigating The Carbon Cycle. (574383)** il. An introduction to carbon, constantly moving between the air, the oceans, rocks, and living things. (08-11) Lerner 2016 Q (AR) \$28.44

**Petersen, Christine. Silver. (710927)** il. An introduction to silver, the most conductive metal on earth, including how it is formed and where it is found. (08-12) Abdo 2014 (AR) \$21.19





**Royston, Angela. Experiments With A Lemon.** (769397) il. An introduction to the chemical properties of acids and bases through photo-illustrated, step-by-step experiments. (07-11) Smart Apple 2016 L,Q \$23.29

**Taylor-Butler, Christine. Planet Earth.** (874065) il. An introduction to Earth, the only planet in the solar system known to support life, including why it is so perfectly suited to host a variety of life forms, and how modern scientists are studying the planet today. (09-11) Children's 2014 (AR/RC) \$13.35

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## Grade 5 Life Science

**Bang, Molly. Ocean Sunlight: How Tiny Plants Feed The Seas.** (088418) il. Phytoplankton, great white sharks, and manta rays illuminate a grand food chain and the life cycles deep within our seas. (07-10) Blue Sky Press 2012 B+,K+,L,Q+,M,C,W+ (AR/RC) \$21.21

**Bang, Molly. Rivers Of Sunlight: How The Sun Moves Water Around The Earth.** (088427) il. The sun explains its role in the movement of water around the Earth, from the lifting of fresh water from the seas, to the movement of underwater currents that nourish the world's oceans. The sun has a hand in moving rivers of water in its liquid, gaseous, and solid states all around the Earth, enabling life to exist on our planet. But human beings are interfering in this natural cycle, unbalancing the amount of fresh water available. (04-08) Blue Sky Press 2017 B+,K+,L+,M+,W+ (AR/RC) \$21.21

**Bell, Samantha. 12 Amphibians Back From The Brink.** (106243) il. Introduces twelve amphibians that were on the brink of extinction and made an amazing comeback, including facts about their habitat, diet, reasons why the species were threatened and the science behind the work that helped them survive. (08-12) Amicus 2015 L (AR) \$27.87

**Carson, Mary Kay. Inside Biosphere 2: Earth Science Under Glass.** (194955) Uhlman, Tom il. In the 1990s, scientists lived inside Biosphere 2 (Biosphere 1 is the Earth itself) for two years, trying to figure out if colonizing Mars would ever be possible. Now scientists don't live there but instead conduct all sorts of studies and experiments aimed to help us better understand our environment and especially understand what sort of things are happening to it due to climate change and other man-made problems. (10-14) Houghton Mifflin Harcourt 2015 B+,K,L+,Q+,M,C (AR/RC) \$21.21

**Chung, Liz. Controlling Invasive Species.** (214116) il. Learn all about invasive species and the problems they can cause for plants and animals that are native to a habitat. (08-10) PowerKids 2017 \$24.44

**Collard, Sneed B. Australia's Cane Toads: Overrun!** (230566) il. Before 1935, there were no cane toads in Australia. Today, they are a huge presence in the country. Learn all about these troublesome creatures. (08-11) Bearport 2016 Q (AR) \$21.89

**Earley, Chris G. Falcons In The City: The Story Of A Peregrine Family.** (300496) Massey, Luke il. The true-life story of the peregrine falcon that nested in the balcony flowerbox of a Chicago highrise. (09-13) Firefly Books 2016 B,L \$15.20

**Fleisher, Paul. Ocean Food Webs In Action.** (340944) il. Seals, otters, oysters, fish, pelicans, and sharks are a few of the animals that make up an ocean food web. But did you know that almost all ocean creatures depend on algae to live? Or that bacteria, crabs, and lobsters break down dead plants and animals into nutrients? (07-11) Lerner 2014 Q (AR/RC) \$27.47

**Gigliotti, Jim. Who Was George Washington Carver?** (378488) Marchesi, Stephen il. Born into slavery, George Washington Carver became the first black student at Iowa State Agricultural College and later its first black professor. He went on to the Tuskegee Institute, where he specialized in botany (the study of plants) and developed techniques to grow crops better. (08-12) Grosset 2015 (AR/RC) \$12.92

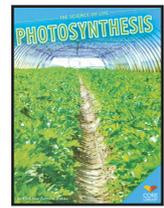
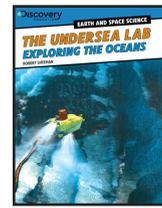
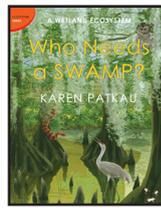
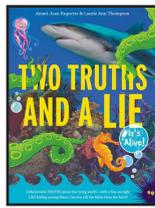
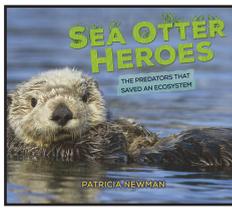
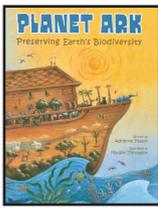
**Gish, Melissa. Hawks.** (378502) il. A scientific look at hawks, including their habitats, physical characteristics such as their wings, behaviors, relationships with humans, and variety of the hunting raptors in the world today. (10-14) Creative Education 2015 L (AR) \$25.39

**Gonzales, Doreen. Frigid Arctic Ocean.** (385638) il. Discover the natural resources and animals of the Arctic Ocean, and learn about the explorers and current issues facing this ocean. (08-10) Enslow Elementary 2013 Q (AR) \$24.67

**Gonzales, Doreen. Huge Pacific Ocean.** (385639) il. Learn about the world's largest ocean-it's sea floor, and the animals that call the Pacific Ocean home. Also read about the people who have explored it and what is being done to keep the Pacific clean. (08-10) Enslow Elementary 2013 L,Q (AR) \$24.67

**Greve, Tom. Botanists.** (401270) il. An introduction to botanists and how their work plays an important role in understanding the complex relationships among Earth's plants, as well as the relationship between plants, animals, and people. (08-12) Rourke 2016 (AR) \$15.20

**Hague, Bradley. Rise Of The Lioness: Restoring A Habitat And Its Pride On The Liuwa Plains.** (410477) il. In West Zambia witness the last lioness, Lady, and her fight for survival in this evocative narrative on the decline, fall, and rebirth of the Liuwa Plains. (08-12) National Geographic 2016 L,Q \$21.21



**Hirsch, Rebecca E. Birds vs. Blades?: Offshore Wind Power And The Race To Save Seabirds. (446803)** il. Find out how scientists are working to ensure clean, renewable offshore wind power to avoid disaster for the millions of seabirds that play a critical role in the ocean food web. (10-14) Millbrook 2017 B,K,L,Q (AR/RC) \$31.24

**Jankowski, Matthew. Attack Of The Burmese Pythons. (489137)** il. An introduction to Burmese pythons, including their invasion of Florida, harm to the environment, modern ways conservation groups are trying to stop their spread, and more. (07-10) Gareth Stevens 2017 \$14.30

**Kid's Guide To Exploring Nature. (517102)** il. Children will learn how to observe environments as a naturalist does, then delve into twenty-four guided adventures that show the complex ecosystems of plants and animals in the woods, at the beach, and in a city park. (08-12) Brooklyn Botanic Garden 2014 L,W \$19.79

**LaPlante, Walter. Conserving The Great Lakes. (542892)** il. An introduction to the Great Lakes, including conservation issues, climate change, mining, water quality, and more. (08-12) Gareth Stevens 2015 \$15.27

**Lindeen, Mary. Investigating The Carbon Cycle. (574383)** il. An introduction to carbon, constantly moving between the air, the oceans, rocks, and living things. (08-11) Lerner 2016 Q (AR) \$28.44

**Markle, Sandra. Case Of The Vanishing Honeybees: A Scientific Mystery. (603758)** il. Honeybees are disappearing every year and no one knows why. In this real-life science mystery, scientists and beekeepers try to find the answers before it's too late. (09-13) Millbrook 2014 B,K,L,Q,C (AR/RC) \$29.38

**Mason, Adrienne. Planet Ark: Preserving Earth's Biodiversity. (610514)** Thompson, Margot il. Uses the metaphor of an ark to explain why biodiversity is important to the survival of living things, including us. (08-12) Kids Can 2013 B,K,L,Q,W+ (AR) \$21.19

**Newman, Patricia. Plastic, Ahoy!: Investigating The Great Pacific Garbage Patch. (674962)** Crawley, Annie il. Follows the scientists studying the massive accumulation of plastic in the Pacific Ocean known as the Great Pacific Garbage Patch. (08-12) Millbrook 2014 B,K+,L,Q,CA (AR/RC) \$29.38

**Newman, Patricia. Sea Otter Heroes: The Predators That Saved An Ecosystem. (675226)** il. Marine biologist Brent Hughes discovered a surprising connection between sea otters and sea grass at an estuary in northern California. Follow science in action as Hughes conducts the research that led to this major discovery. (08-12) Millbrook 2017 B,K+,L (AR) \$30.31

**Oliver, Narelle. Sand Swimmers: The Secret Life Of Australia's Desert Wilderness. (689432)** il. Journey to the heart of Australia and find secret life in the harshest of deserts. (07-10) Candlewick 2015 B,K+,L,Q \$19.81

**Paquette, Ammi-Joan. Two Truths And A Lie: It's Alive! (698680)** il. A nonfiction book that presents some of the most crazy-but-true facts about the living world, as well as a handful of stories

that aren't true--and asks kids to discover which are which! (08-12) Walden Pond Press 2017 B+,K,L,C \$20.51

**Patkau, Karen. Who Needs A Desert?: A Desert Ecosystem. (703487)** il. Takes readers on an amazing voyage of discovery to find out how deserts are formed, where deserts are found, what wildlife thrives there, and much more. (07-10) Tundra 2014 B \$20.51

**Patkau, Karen. Who Needs A Prairie?: A Grassland Ecosystem. (703488)** il. Takes readers on an amazing voyage of discovery to find out how wild and rugged prairies become grasslands, what wildlife and plants thrive in large open spaces, why we need prairies, and much more. (07-10) Tundra 2014 B \$20.51

**Patkau, Karen. Who Needs A Reef?: A Coral Reef Ecosystem. (703489)** il. Takes readers on an amazing voyage of discovery to find out how coral reefs form, which plants and animals attach themselves to coral reefs, where the coral reef areas of the world are, and much more. (07-10) Tundra 2014 B \$20.51

**Patkau, Karen. Who Needs A Swamp?: A Wetland Ecosystem. (703479)** il. Explores the swamp as an ecosystem and the plants and animals that call it home. (07-10) Tundra 2012 Q (AR) \$20.49

**Rooney, Anne. Agricultural Engineering And Feeding The Future. (763067)** il. Agricultural engineers are on the front line in the challenge to provide a secure food supply for our world. This timely book explores how engineers design methods, as well as machinery for growing and harvesting crops, to make farming more efficient. Real-life examples help students understand key concepts related to this important profession. With an overview of the engineering design process, readers are encouraged to apply the same steps into their own agricultural engineering challenge. (09-12) Crabtree 2016 B (AR) \$15.20

**Sheehan, Robert. Undersea Lab: Exploring The Oceans. (809438)** il. An introduction to earth's oceans, including size and depth, ocean life, climates, and marvels, as well as the dangers threatening these wondrous waters. (09-13) PowerKids 2014 \$25.60

**Simon, Seymour. Coral Reefs. (820352)** il. An introduction to one of the most beautiful life-forms under the sea--coral reefs! (06-10) Harper 2013 B,K,L,Q (AR) \$13.72

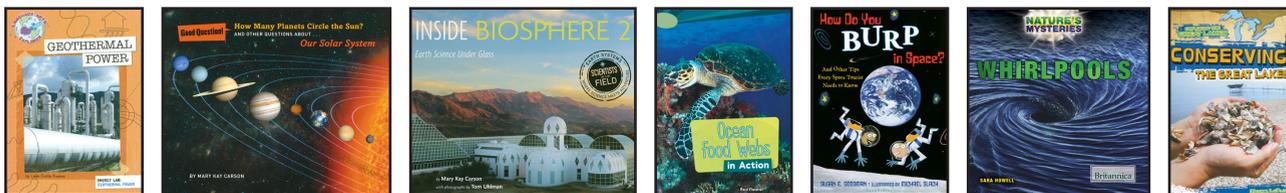
**Spilsbury, Louise. What Are Food Chains & Food Webs? (840226)** il. Explains the transfer of energy between living things--known as the food chain-- in a way that allows any reader to grasp the scientific principles behind food chains and food webs. (07-11) Britannica Ed Pub 2014 (AR) \$24.34

**Strauss, Holden. Animal Migration. (860416)** il. An introduction to animal migration and answers many questions about where animals go and why. (09-13) PowerKids 2017 L \$26.30

**Zuchora-Walske, Christine. Photosynthesis. (984856)** il. Learn about photosynthesis and why it is essential to life on earth. (08-12) Abdo 2014 L (AR) \$23.99

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## Grade 5 Earth & Space Science

**Bang, Molly. Ocean Sunlight: How Tiny Plants Feed The Seas. (088418)** il. Phytoplankton, great white sharks, and manta rays illuminate a grand food chain and the life cycles deep within our seas. (07-10) Blue Sky Press 2012 **B+,K+,L,Q+,M,C,W+** (AR/RC) **\$21.21**

**Bang, Molly. Rivers Of Sunlight: How The Sun Moves Water Around The Earth. (088427)** il. The sun explains its role in the movement of water around the Earth, from the lifting of fresh water from the seas, to the movement of underwater currents that nourish the world's oceans. The sun has a hand in moving rivers of water in its liquid, gaseous, and solid states all around the Earth, enabling life to exist on our planet. But human beings are interfering in this natural cycle, unbalancing the amount of fresh water available. (04-08) Blue Sky Press 2017 **B+,K+,L+,M+,W+** (AR/RC) **\$21.21**

**Brennan, Linda Crotta. Geothermal Power. (148452)** il. An introduction to geothermal power, including how it was used in the past, how we use it today, and how we may use it in the future. (09-13) Cherry Lake 2013 **L** (AR) **\$21.89**

**Carson, Mary Kay. How Many Planets Circle The Sun?: And Other Questions About...Our Solar System. (194964)** il. Why does the moon circle the Earth? Could humans survive on Mars? All of these and other "must-know" questions about our solar system are answered. (07-11) Sterling 2014 **Q+** (AR) **\$13.20**

**Carson, Mary Kay. Inside Biosphere 2: Earth Science Under Glass. (194955)** Uhlman, Tom il. In the 1990s, scientists lived inside Biosphere 2 (Biosphere 1 is the Earth itself) for two years, trying to figure out if colonizing Mars would ever be possible. Now scientists don't live there but instead conduct all sorts of studies and experiments aimed to help us better understand our environment and especially understand what sort of things are happening to it due to climate change and other man-made problems. (10-14) Houghton Mifflin Harcourt 2015 **B+,K,L+,Q+,M,C** (AR/RC) **\$21.21**

**Castellano, Peter. Water Conservation. (198811)** il. Introduces readers to the fundamental water issues, including droughts, acid rain, and pollution, all problems found around the world, and how to conserve and care for the precious water on Earth. (07-10) Gareth Stevens 2017 (AR) **\$14.30**

**Dakers, Diane. Earth's Cycles. (254655)** il. Explains the patterns and cycles created on Earth by the influence of the sun and the moon, as well as by the Earth's magnetic poles and the planet's rotation on an axis. (10-13) Crabtree 2015 (AR) **\$15.59**

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**Gonzales, Doreen. Frigid Arctic Ocean. (385638)** il. Discover the natural resources and animals of the Arctic Ocean, and learn about the explorers and current issues facing this ocean. (08-10) Enslow Elementary 2013 **Q** (AR) **\$24.67**

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**Goodman, Susan E. How Do You Burp In Space?: And Other Tips Every Space Tourist Needs To Know. (385881)** Slack, Michael H. il. A non-fiction travel guide to space tourism that includes information about accommodations, attractions, and more.(Postponed from Fall 2012) (08-12) Bloomsbury 2013 **K,L,Q,C** (AR/RC) **\$19.81**

**Hirsch, Rebecca E. Birds vs. Blades?: Offshore Wind Power And The Race To Save Seabirds. (446803)** il. Find out how scientists are working to ensure clean, renewable offshore wind power to avoid disaster for the millions of seabirds that play a critical role in the ocean food web. (10-14) Millbrook 2017 **B,K,L,Q** (AR/RC) **\$31.24**

**Howell, Sara. Whirlpools. (467222)** il. Examines the natural and human-made conditions that create whirlpools, eddies, and more. (06-09) Britannica Ed Pub 2017 (AR) **\$24.34**

**Iyer, Rani. Endangered Rivers: Investigating Rivers In Crisis. (481537)** il. Discusses what rivers are, their importance to humans and to the ecosystem, how humans are harming them, and what can be done to protect them. (08-12) Capstone 2015 **L,Q** (AR) **\$20.98**

**Koontz, Robin Michal. Science Of A Sinkhole. (529852)** il. Discusses the science behind sinkholes, including historical sinkholes, environmental factors that cause them, how scientists respond to them, and more. (09-12) Cherry Lake 2016 **B** (AR) **\$22.59**

**LaPlante, Walter. Conserving The Great Lakes. (542892)** il. An introduction to the Great Lakes, including conservation issues, climate change, mining, water quality, and more. (08-12) Gareth Stevens 2015 **\$15.27**

**Lew, Kristi. Solving Real-World Problems With Environmental And Green Engineering. (568205)** il. An introduction to green engineers and how they cut down on waste and the use of natural resources by inventing new materials and techniques. (07-11) Britannica Ed Pub 2016 (AR) **\$24.34**

**Lindeen, Mary. Investigating The Carbon Cycle. (574383)** il. An introduction to carbon, constantly moving between the air, the oceans, rocks, and living things. (08-11) Lerner 2016 Q (AR) \$28.44

**Markle, Sandra. Case Of The Vanishing Honeybees: A Scientific Mystery. (603758)** il. Honeybees are disappearing every year and no one knows why. In this real-life science mystery, scientists and beekeepers try to find the answers before it's too late. (09-13) Millbrook 2014 B,K,L,Q,C (AR/RC) \$29.38

**Marsico, Katie. Darkest And The Brightest. (605533)** il. Learn all about the darkest and brightest places on Earth and find out what it takes for life to survive in these extreme locations. (08-10) Children's 2016 (AR) \$13.35

**Mason, Adrienne. Planet Ark: Preserving Earth's Biodiversity. (610514)** Thompson, Margot il. Uses the metaphor of an ark to explain why biodiversity is important to the survival of living things, including us. (08-12) Kids Can 2013 B,K,L,Q,W+ (AR) \$21.19

**Newman, Patricia. Plastic, Ahoy!: Investigating The Great Pacific Garbage Patch. (674962)** Crawley, Annie il. Follows the scientists studying the massive accumulation of plastic in the Pacific Ocean known as the Great Pacific Garbage Patch. (08-12) Millbrook 2014 B,K+,L,Q,CA (AR/RC) \$29.38

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**Owen, Ruth. Astronomers. (694757)** il. An introduction to astronomers, including today's technology of space telescopes, rovers, and deep-space probes that make astronomy a truly exciting field. (09-12) PowerKids 2014 L \$25.60

**Owen, Ruth. Climatologists And Meteorologists. (694781)** il. An introduction to climatologists and meteorologists who do much more than study climate and predict the weather. (09-12) PowerKids 2014 L \$25.60

**Owen, Ruth. Inventors: Designing And Creating Tomorrow's World. (694776)** il. Every day, inventors are creating new products and technologies that help us learn, live, work, have fun, and take care of our planet. (08-11) Ruby Tuesday 2017 L (AR) \$21.89

**Peters, Elisa. Auroras: Behind The Northern And Southern Lights. (710672)** il. Introduces elementary readers to the basics of magnetism and atmospheric science. (06-09) Britannica Ed Pub 2017 B (AR) \$25.04

**Rao, Joe. Looking Up!: The Science Of Stargazing. (739549)** Borgions, Mark il. Learn about the science behind some cool celestial events and objects such as eclipses, meteors, constellations and comets. (07-09) Simon Spotlight 2017 \$12.22

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- B Booklist
- C Bulletin of the Center for Children's Books
- K Kirkus Reviews
- L School Library Journal
- M Horn Book
- Q Horn Book Guide
- W Publishers Weekly
- + Starred review
- AR Accelerated Reader® test available
- RC Reading Counts® test available



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