

BIBLIOGRAPHY

NEW TRADE BOOKS WITH CURRICULUM for TEACHING COMMON CORE

Grades 3-5

Prepared by:

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Using Science to Teach the Common Core:

Classroom-Ready Curriculum for Nonfiction Books that Kids will Love

Bibliography Available Free Online:

<https://elizabethshreeve.com/educational-resources/>

Criteria for books on this bibliography: STEM nonfiction for children (grades 3-5) published within the last +/-five years by major trade publishers; readily available in libraries and bookstores.

Emphasis: Books with curriculum that connect Science/STEM and NGSS to Common Core and prepare students for assessments, especially in language arts. All curriculum / teacher guides linked here are available free from author or publisher websites and/or online blogsites.

Please note: *This is not a complete bibliography but rather a starting point of outstanding, recent books with useful curricula.*

Lots of other great books with teacher resources are out there. Send us your suggestions!

This bibliography is organized by grade level and NGSS Domain (Physical Science, Life Science, Earth and Space Science, Engineering Design). Most books can be used for multiple grade levels. Highlighting indicates books with teacher resources that connect from **NGSS/science** to **Common Core/language arts**.

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| | Multiple connections |
| | Good connections |
| | Possible connections/not yet identified |

| Title Author & Illustrator | Publisher Date | NGSS Domain | Description | Curriculum Link | Notes on Curriculum |
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| GRADE 3 | | | | | |
| KING OF THE TIGHTROPE by Donna Janell Bowman, illustrated by Adam Gustavson | Peachtree, 2019 | Physical Science; Engineering Design | Biography of Jean-Francois Gravelet, The Great Blondin, walked across the Niagara River on a tightrope | Author website link | Teacher guide ties STEM to ELA, with Common Core standards |
| RIVERS OF SUNLIGHT by Molly Bang, illustrated by Penny Chisholm | Blue Sky, 2017 | Physical Science; Life Science | Explains how the sun keeps ocean currents moving around the Earth. Part of the Sunlight Series. | Author-Illustrator website link | Variety of activities for this book and others in the series |
| NANO: THE SPECTACULAR SCIENCE OF THE VERY (VERY) SMALL by Jess Wade, illustrated by Melissa Castrillon | Candlewick, 2021 | Physical Science | Introduces readers to the tiny building blocks that make up the world | Publisher website link | One-page activity for understanding the book |
| A LIFE ELECTRIC by Azadeh Westergaard, illustrated by Julia Sarda | Viking, 2021 | Physical Science; Engineering Design | Biography of Nikola Tesla, eccentric engineer and inventor | | None identified |
| OUT OF THE BLUE by Elizabeth Shreeve, illustrated by Frann Preston-Gannon | Candlewick, 2021 | Life Science; Earth Science | Evolution of life from ocean to land (fossil record, Earth history, natural selection, adaptation, ancestry and diversity) | Author website link LitLinks Blog link | 5-part curriculum with activities and videos for NGSS and Common Core (mini- books, presentation; math scaling/ measurements) |

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|---|---------------------------|----------------------------------|---|---|---|
| FOURTEEN MONKEYS by Melissa Stewart, illustrated by Steve Jenkins | Simon & Schuster, 2021 | Life Science | Layered text about rain forest ecosystem, combining poetry and narrative | Author website link | Teacher guide cover K-2 and 3-5; writing activities / ELA included |
| SUMMERTIME SLEEPERS by Melissa Stewart, illustrated by Sarah Brannen | Charlesbridge, 2021 | Life Science | Layered text about animals that estivate—a prolonged sleep during hot or dry periods. Sibert Honor. | Author website link | Teacher guide cover K-2 and 3-5; writing activities / ELA included |
| A SEED IS THE START by Melissa Stewart | National Geographic, 2018 | Life Science | Layered text with photographs about seeds and plant growth. | Author website link | Teacher guide by National Geographic; NGSS linked to activities for grades 1-5; writing activities included |
| ONE DARK BIRD by Liz Garton-Scanlon, illustrated by Frann Preston-Gannon | Beach Lane, 2019 | Life Science | Poetic counting book describing the murmuration of starlings. Text is on the younger side. | Author website link | Teacher guide cites CC standards; both ELA and math |
| HOW TO BUILD AN INSECT by Roberta Gibson, illustrated by Anne Lambelet | Millbrook, 2021 | Life Science; Engineering Design | Step by step guide to insect anatomy | Author website link | STEAM activities especially for visual and kinesthetic learners |
| THE LEAF DETECTIVE by Heather Lang, illustrated by Jana Christy | Calkins Creek, 2021 | Life Science | Biography of Meg Lowman, groundbreaking scientist who explored rainforest treetops | Author website link | Comprehension questions to accompany read-aloud |
| JACK HORNER: DINOSAUR HUNTER by Sophia Gholz, illustrated by David Shephard | Sleeping Bear Press, 2021 | Earth and Space Science | Biography of famous paleontologist Jack Horner, who succeeded despite severe dyslexia | Author website link | Classroom guide for grades 1-3, tied to Common Core |
| THE STUFF BETWEEN THE STARS by Sandra Nickel, illustrated by Aimee Sicuro | Abrams, 2021 | Earth and Space Science | Biography of astronomer Vera Rubin who helped discover and name dark matter. | Publisher website link | Useful questions and activities |
| CLASSIFIED by Traci Sorell, illustrated by | Millbrook, 2021 | Engineering Design | Career of Mary Golda Ross, Cherokee Aerospace Engineer | Curious City website link | Tiered activities, including writing and Cherokee |

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| Natash Donovan | | | | | language, tied to rocketry and aerospace |
| CODE BREAKER, SPY HUNTER by Laurie Wallmark, illustrated by Brooke Smart | Abrams, 2021 | Engineering Design | Biography of Elizebeth Friedman | Author website link | Teacher guide aligned for Grades 1-5 in CC Ela and math |
| THE GREAT STINK by Colleen Paeff, illustrated by Nancy Carpenter | Margaret McElderry Book, 2021 | Engineering Design | Profiles Joseph Bazalgette, engineer who addressed London's pollution | Author website link | Thorough teacher guide with Common Core connections |
| TICKTOCK BANNEKER'S CLOCK by Shana Keller, illustrated by David C. Gardner | Sleeping Bear, 2016 | Engineering Design | Biography featuring an African American scientist in 18 th c. with exceptional skills for building clocks | LitLinks Blog Link Author website link | A few Common Core/NGSS connections |
| GRADE 4 | | | | | |
| EAVESDROPPING ON ELEPHANTS by Patricia Newman | Millbrook, 2018 | Life Science | How scientists are making new discoveries about elephant communication. Grade levels 4-6. | Cornell University Lab link | Teacher guide by Cornell Lab, grades 4-6. General reference to NGSS and Common Core |
| SERENGETI: PLAINS OF GRASS by Leslie Bulion, illustrated by Becca Stadtlander | Peachtree, 2022 | Life science | Science poetry. | LitLinks Blog Link | Teacher guide connects natural world to writing poetry |
| ASTRONAUT, AQUANAUT by Jennifer Swanson | National Geographic Kids, 2018 | Earth and Space Science; Life Science | Explores parallels between deep-sea and space explorers. Grades 3-7. | Author website link | Teacher guide by National Geographic emphasizes NGSS, grades 2-middle school |
| CURIOSITY: THE STORY OF MARS ROVER by Markus Motum | Candlewick, 2018 | Earth and Space Science; Engineering Design | Introduction to robotic spacecraft rover Curiosity and her mission | Publisher website link | A brief teacher guide cites CC Connections |

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| FAULT LINES by Johanna Wagstaffe | Orca, 2017 | Earth and Space Science | Seismologist explores information on earthquakes. | STEM Tuesday blog link | None identified |
| SAVE THE CRASH TEST DUMMIES by Jennifer Swanson, illustrated by TeMika Grooms | Peachtree, 2019 | Engineering Design | STEM-filled history of car production and the engineering that makes cars safe. Grades 4-6. | Author website link | Teacher guide with Common Core standards for grades 4-7 |
| THE SCIENCE AND TECHNOLOGY OF LEONARDO DAVINCI by Elizabeth Pagel-Hogan, illustrated by Micah Rauch | Nomad, 2021 | Engineering Design | Science biography of Leonardo da Vinci, with activities for designs and inventions | LitLinks Blog link | Curriculum is more math-oriented than ELA; good for visual learners |
| MIMIC MAKERS by Kirsten Nordstrom, illustrated by Paul Boston | Charlesbridge, 2021 | Engineering Design; Life Science | Profiles of ten scientists, engineers, and designers who imitate plants and animals to create amazing new technology | Author website link | General connections for writing |
| ROBO-MOTIONS by Linda Zajac | Millbrook, 2021 | Engineering Design; Life Science | Explores robots engineers using biomimicry to move like animals | Author website link | General lesson plan and activity guide |
| GRADE 5 | | | | | |
| TWO TRUTHS AND A LIE by Ammi-Joan Paquette and Laurie Thompson, illustrated by Lisa K. Weber | Walden Pond/Harper Collins, 2018 | Life Science | Presents readers with choices between stories, false and true, about the living world; encourage evaluation of written information. Series of three books on different topics. | Author website link | Thorough curriculum with lots of CC and other connections. Encourages critical thinking. |
| THE GIRL WHO DREW BUTTERFLIES by Joyce Sidman | Clarion, 2018 | Life Sciences | Biography of Maria Merian, 17 th century artist and naturalist. Sibert Medalist. Grades 5+ | Author website link | Connects to CCSS literacy standards for grades 3-5; offers poetry activities |
| PLANET OCEAN by Patricia Newman, with photographs by | Millbrook, 2021 | Life Science | Explores ocean regions and climate-related issues/solutions, with photographs | Author website link | NGSS and CC standards cited |

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| Annie Crowley | | | | | |
| WHO GIVES A POOP by Heather Montgomery, illustrated by Iris Gottlieb | Bloomsbury, 2020 | Life Science | Unique narrative exploring the science of poop among many types of animals | LitLinks Blog link | General connections and links |
| BLACK HOLE CHASERS by Anna Crowley Redding | Feiwel & Friends, 2021 | Earth and Space Science | True story of a scientific breakthrough— first image of a super massive black hole. | | In progress; check author website |
| A BLACK HOLE IS NOT A HOLE by Carolyn Cinami DeCristofano | Charlesbridge, updated 2021 | Earth and Space Science | Uses metaphors to explain complex science | LitLinks Blog link LitLinks Blog worksheet Author website link | Teacher guide (LitLinks blog) uses metaphors to explain complex science |
| THE UNOFFICIAL GUIDE TO MINECRAFT SURVIVAL by Linda Zajac | Lerner Classroom, 2019 | Engineering Design | Part of a series that appeals to Minecraft players | LitLinks Blog link | Teacher guide uses Minecraft as a model for story elements and creative writing |

ADDITIONAL RESOURCES

| Resource | Description | Link | Notes |
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| LITLINKS Guest Blog Patricia Newman, Children’s Book Author | Blog highlighting connections between STEM & language arts, with guest posts by educators, authors, scientists | https://www.patriciamnewman.com/blog-4/ | Excellent source for new science nonfiction books with classroom activities; updated frequently. Individual books and special topics such as biographies |
| PERFECT PAIRS, GRADES 3-5 by Melissa Stewart and Nancy Chesley (Stenhouse, 2016) | Book of resources for using fiction and nonfiction picture books to teach life science. Includes classroom activities | https://www.melissa- stewart.com/books/teachers/bk_perfect_pairs_3-5.html https://www.stenhouse.com/content/perfect-pairs-grades-3-5 | Version for Grades K-2 also available: https://www.stenhouse.com/content/perfe ct-pairs-grades-k-2 |

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| FIVE TYPES OF NONFICTION by Melissa Stewart and Marlene Correia (Stenhouse, 2021) | Categorizes and explores five types of nonfiction books for children, with activities | https://www.stenhouse.com/content/5-kinds-nonfiction | Includes recent books with suggestions for use in classrooms |
| STEM TUESDAY | Online blog about new middle grade science books and related activities | https://fromthemixedupfiles.com/category/stem-tuesday/ Author websites with activity guides | Includes a list of author websites with discussion/activity guides |
| Curious City | Website with Children’s Book Engagement Tools including teacher guides for STEM | https://www.curiouscitydpw.com/tag/stem-steam/ | |
| Teachers Pay Teachers | Additional teacher resources | https://www.teacherspayteachers.com | Materials available for modest fees |
| NSTA Resources Science and Children: Teaching | Many online resources for members | Literacy Topics Science and Children: Teaching Through Trade Books (monthly column) Picture-Perfect Science Teaching Science Through Trade Books (reference book, 2012) | |
| CCBC Choices –Children’s Cooperative Book Center | Annotated Booklist, including best-of-year Science, Technology and the Natural World | Link here https://uwmadison.app.box.com/s/pvpuft57quq4yx3x6nmys6ydudsodvp3 | Published annually by University of Wisconsin-Madison |
| Blueberry Awards | New awards program from Evanston Public Library for kids’ books that inspire a love of nature & action for Earth | https://www.epl.org/booklist/the-blueberry-award-winner-and-honors/ | Great source for brand new nonfiction science books |
| School Library Journal Fuse 8 Best Science and Nature Books | List of 31 best books by Elizabeth Bird | https://blogs.slj.com/afuse8production/2021/12/24/31-days-31-lists-2021-science-and-nature-books/ | Published annually; great source for newly released nonfiction science books |
| School Library Journal Book Reviews | Reviews books especially suited for school libraries | https://www.slj.com/section/reviews | Check for starred reviews |
| Other nonfiction books awards | Check author and publisher websites for teaching materials prepared for books winning Sibert, Subaru, and other awards | | |