

BIBLIOGRAPHY

NEW TRADE BOOKS WITH CURRICULUM for TEACHING COMMON CORE

Grades 3-5

Prepared by:

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Using Science to Teach 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!

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**.

	Multiple connections
	Good connections
	Possible connections/not yet identified

Title Author & Illustrator	Publisher Date	NGSS Domain	Description	Curriculum Link	Notes on Curriculum
GRADE 3					
CLASSIFIED by Traci Sorell, illustrated by Natash Donovan	Millbrook, 2021	Engineering Design	Career of Mary Golda Ross, Cherokee Aerospace Engineer	Curious City website link	Tiered activities, including writing and Cherokee 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
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
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
OUT OF THE BLUE by Elizabeth Shreeve, illustrated by Frann Preston-Gannon	Candlewick, 2021	Life Science; Earth Science; Oceans	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)

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
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
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
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
I’M A NEUTRINO by Dr. Eve M. Vavagiakis, illustrated by Ilze Lemesis	MIT Kids Press/ Candlewick Press	Earth and Space Science	An accessible picture book about one of the universe’s most mysterious particles.	Publisher website link	Teacher tips
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
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
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
THE LEAF DETECTIVE by Heather Lang, illustrated	Calkins Creek, 2021	Life Science	Biography of Meg Lowman, groundbreaking scientist who explored	Author website link	Comprehension questions to accompany read-aloud

by Jana Christy			rainforest treetops		
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
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
DUCKS OVERBOARD!	Candlewick, 2021	Life Science; Oceans	Plastic duck narrates the true story of thousands of bath toys lost at sea	Publisher website link	Teacher tips available from publisher; "eco-facts"
HOW TO SPACEWALK by Kathryn D. Sullivan and Michael J. Rosen	MIT Kids Press/ Candlewick Press	Earth and Space Science	A guide to preparing for and doing a real spacewalk with the first American woman to walk in space		None identified
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
GRADE 4					
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
ASTRONAUT, AQUANAUT by	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

Jennifer Swanson					
CONCRETE: FROM THE GROUP UP by Larissa Theule, illustrated by Steve Light	Candlewick Press, 2022	An eye-opening look at concrete that shapes our world.	An eye-opening look at concrete that shapes our world.	Publisher website link to teacher guide	Brief teacher tips for class walks, research, and sketching
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
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
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
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
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
FAULT LINES by Johanna Wagstaffe	Orca, 2017	Earth and Space Science	Seismologist explores information on earthquakes.	STEM Tuesday blog link	None identified

ONE WORLD by Nicola Davies, illustrated by Jenni Desmond	Candlewick Press, 2022	Life Science	A worldwide tour of animals through their day.		None identified
UNSEEN JUNGLE by Eleanor Spicer Rice, PhD., illustrated by Rob Wilson	MIT Kids Press/ Candlewick Press	Life Science	A peek into the amazing world of microbes, with plenty of “ick” factor, facts, and humor.		None identified
GRADE 5					
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
PLANET OCEAN by Patricia Newman, with photographs by Annie Crawley	Millbrook, 2021	Life Science	Explores ocean regions and climate-related issues/solutions, with photographs	Author website link	NGSS and CC standards cited
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
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 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
DETECTOR DOGS,	MIT Kids	Life Science,	Meet incredible animals with highly	Publisher website link	Tips for Teachers provided by

DYNAMITE DOLPHINS by Christina Couch and Cara Giaimo, illustrated by Daniel Duncan	Press/ Candlewick Press	Engineering Design	developed senses and learn about the jobs they do.		publisher
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

ADDITIONAL RESOURCES

Resource	Description	Link	Notes
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
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		