

## Earth Science

### Resource List for Grades K through 4

The Resources in this document can be used with the Earth Science Curriculum Packet for grades K through 4.

#### Books

##### Non-fiction and Biography

- The Animals Sleep: A Bedtime Book of Biomes, 2011 by Thomas M. Heffron (Author), Lina Safar (Illustrator).  
This book explores the unique sleep environments of animals, taking readers on a fascinating journey to see the diverse biomes of the world: from freshwaters and marine waters to the dry desert, and from dense woodlands and forests to the open grassland and tundra.
- B is for Blue Planet: An Earth Science Alphabet, 2011 by Ruth Strother (Author), Bob Marstall (Illustrator).  
A poetic alphabet book with significant side notes with more information on the letter's topic. Side notes are appropriate up to 6th grade.
- Discover Science: Planet Earth, 2014 by Deborah Chancellor (Author).  
This introduction to the beauty and functionality of Earth is filled with popular content-area topics like biomes, life on Earth and weather systems. Readers will explore our planet's coldest, hottest, driest, and wettest places.
- Down, Down, Down: A Journey to the Bottom of the Sea, 2016 by Steve Jenkins (Author).  
Half the earth's surface is covered by water more than a mile deep, but most of this watery world is a mystery to us. In fact, more people have stood on the surface of the moon than have visited the deepest spot in the ocean.
- Discover Science: Rocks and Fossils, 2014 by Chris Pellant (Author).  
This is an introduction to the three basic forms of rock, crystals, and fossils. Filled with information about geological processes like erosion, weathering and examples of the many ways we use rock.
- Earth! My First 4.54 Billion Years, 2017 by Stacy McAnulty (Author), David Litchfield (Illustrator).  
Learn all about Earth from the point-of-view of Earth herself! In this funny yet informative book, filled to the brim with kid-friendly facts, readers will discover key moments in Earth's life, from her childhood more than four billion years ago all the way up to present day.
- Earthquakes, 1996 by Sally M. Walker (Author).  
Introduces earthquakes, discussing how, why, and where they occur; how they are measured; their effects; and how to prepare for them.

- How the World Works: A Hands-On Guide to Our Amazing Planet, 2010 by Christian Dorion (Author), Beverley Young (Illustrator).  
This pop-up survey devotes pages or spreads to Earth's history and structure, the origins of life, plate tectonics, the water cycle, weather, ocean currents, the carbon cycle, greenhouse effect, plants, and food chains. In snippets of text tucked into every available nook, there is commentary ranging from basic information on seasons and other cycles to abbreviated catalogs of cloud types and kinds of boundaries between tectonic plates.
- If You Find a Rock, 2008 by Peggy Christian (Author), Barbara Hirsch Lember (Photographer).  
Think of all the rocks there are: skipping rocks, splashing rocks, climbing rocks, and wishing rocks. Children can't help collecting them. This title celebrates rocks everywhere, as well as the mysterious and wonderful places they are found.
- Island: A Story of the Galápagos, 2012 by Jason Chin (Author).  
Combining geology, biology, and history, this is a story spanning six million years. Galápagos island makes its first appearance as a volcanic mountain erupting above sea level. After more than a million years, the eruptions dwindle. The island supports many plants and animals, and some develop into unique species. Finally, the island slowly shrinks and sinks beneath the water.
- Many Biomes, One Earth, 2009 by Sneed B. Collard III (Author), James M. Needham (Illustrator).  
Discover earth's natural neighborhoods on a colorful trek through the twelve terrestrial biomes of North and South America. Travel from the icy tundra, where the polar bear makes its home, to the tropical rain forest, the natural home of more than thirty million kinds of insects.
- Mountain Dance, 2001 by Thomas Locker (Author).  
The earth seems still and quiet, but constantly, silently, it is moving and changing. Mountain Dance takes readers from summit to shore, and into the depths of the earth, exploring the geographic forces it takes to move, build, and wear away the great peaks and valleys of our planet.
- The Street Beneath My Feet, 2017 by Charlotte Guillain (Author), Yuval Zommer (Illustrator).  
Turn the pages of this large book from bottom to top for an accordion-folded journey to the center of the Earth; now begin again from the end to head back up to the surface on the other side of the world. The earth science is simple and the detail-packed illustrations, homely and fantastic at once.

## Fiction

- Brendan Buckley's Universe and Everything in It, 2008 by Sundee T. Frazier (Author).  
Ten-year-old Brendan Buckley is a self-declared scientist: asking questions and looking for answers. A chance encounter brings Brendan and his grandfather together where Brendan initiates a relationship with estranged grandfather, Ed DeBose. While they share a passion for geology, they do not share the color of their skin.
- High Tide in Hawaii, 2003 by Mary Pope Osborne (Author), Sal Murdocca (Illustrator).  
Jack and Annie are happy when the Magic Tree House whisks them back to a Hawaiian island of long ago. They learn how to surf and have a great time, until strange things start happening. Jack and Annie soon discover the cause: A tidal wave is headed their way!
- The Legend of Greg (An Epic Series of Failures), 2018 by Chris Rylander (Author).  
Risk-averse Greg Belmont is content with being ordinary. He's got a friend, just one, at his fancy prep school, and a pretty cool dad. The problem is, Greg isn't ordinary, he's an honest-to-

goodness, fantastical Dwarf! Then a murderous Bro-Troll kidnaps his dad and Greg is whisked away to the Underground, where Dwarves have lived for centuries right beneath the streets of Chicago.

- The Little Raindrop, 2014 by Joanna Gray (Author), Dubravka Kolanovic (Illustrator). From cloud to puddle, and puddle to stream, the Little Raindrop is making its way on the remarkable journey that is Earth's water cycle. In this story readers are taught about science and nature through a character-driven narrative that leads a little raindrop on a big adventure
- Rhoda's Rock Hunt, 2014 by Molly Beth Griffin (Author), Jennifer A. Bell (Illustrator). Rhoda picks up smooth, striped, and sparkly rocks; colored rocks and plain rocks; rocks that fit perfectly into her hand, and others with all sorts of shapes. Finally, with her small backpack so loaded she cannot lift it, the child must decide what to do with her multitude of treasures.
- Ricky, the Rock that Couldn't Roll, 2018 by Jay Miletsky (Author), Erin Wozniak (Illustrator). Get ready to meet a new rock group! From zippy little pebbles to big strong boulders, the rocks get together to play and roll around their favorite hill, only to find that one of their friends, Ricky, can't roll with them.

### **Magazines, Journals, Miscellaneous**

- The Earth by Tinybop  
An interactive model that teaches kids about Earth's history and its ever-changing landforms. Kids can freely explore volcanoes, earthquakes, mountains, glaciers, and more by tapping on or dragging features;  
iPhone, iPod Touch, iPad, Android \$2.99. Download in your app store.
- Earth by Kids Discover  
How did life evolve on Earth? Why did the dinosaurs die out? These and other basic questions about our planet are answered in Earth. This issue investigates the composition of our planet and the intricate relationship between living things and their environment. The Earth is also brought to life with fun diagrams and projects like erosion tests.  
<https://www.kidsdiscover.com/shop/issues/earth-for-kids/>
- Earthquakes by Kids Discover  
Our planet certainly does like to shake, rattle, and roll! Here you get the inside story on the biggest, the baddest, and the wettest earthquakes of all time, including the Anchorage ripper of 1964 and San Francisco's "Great Quake" of 1906.  
<https://www.kidsdiscover.com/shop/issues/earthquakes-for-kids/>
- Volcanoes by Kids Discover  
What natural occurrence can transform a landscape in minutes and affect the global climate for years? Volcanoes, of course, get down to the nitty-gritty with these explosive phenomena, which can blow the tops off mountains and flatten forests, as well as build islands in the space of days.  
<https://www.kidsdiscover.com/shop/issues/volcanoes-for-kids/>

### **Online Links**

- Exploratorium: Science Museum for Kids  
<https://www.exploratorium.edu/explore/earth-ocean-atmosphere>

- Smithsonian Museum of Natural History: From dinosaur exhibits to displays of rare gems, this acclaimed museum celebrates the natural world.  
<https://naturalhistory.si.edu/>

### **Background information for the Educator**

- The Importance of Teaching Earth Science: Article in Teach Magazine  
<http://teachmag.com/archives/10545>
- Teacher Vision: Teaching Earth Science  
<https://www.teachervision.com/subjects/science/earth-science>