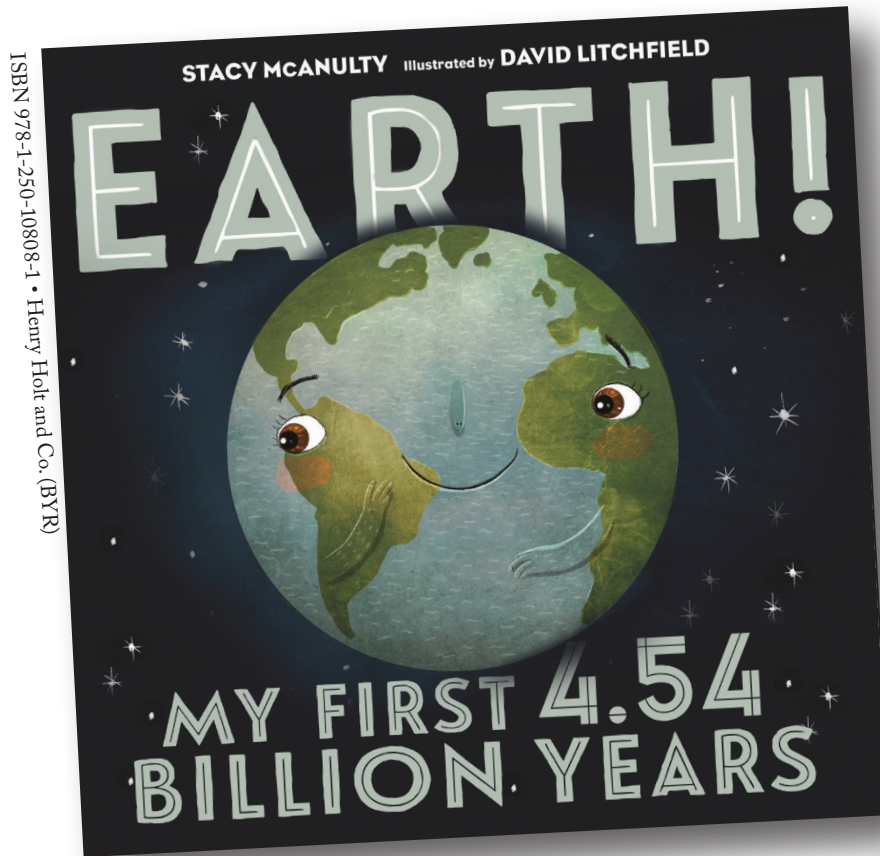


CURRICULUM GUIDE



EARTH! My First 4.54 Billion Years

By
Stacy McAnulty

Illustrated by
David Litchfield

H! MY NAME IS EARTH. Some people call me Gaia, the blue marble, the world, or the third planet from the sun. You can call me Planet Awesome.

Who could be more qualified to talk about the history and formation of our planet and its place the solar system than Earth, herself?

Stacy McAnulty's hilarious picture book about Earth's first 4.54 billion years is charmingly illustrated by David Litchfield. Filled to the brim with eye-opening, kid-friendly facts, *Earth!* is an out-of-this-world introduction to earth science for early elementary classrooms.

★ "McAnulty and Litchfield cast planet Earth as an exuberant celestial body with bright brown eyes and a broad smile, who couldn't be happier to share its life story. . . .

Terrifically entertaining."

—*Publishers Weekly*, starred review



stacymcanulty.com

The Common Core State Standards addressed by the discussion questions and activities in this guide are noted throughout. For more information on the Common Core, visit corestandards.org. Next Generation Science Standards are also listed where applicable. For more information on NGSS, visit nextgenscience.org.

DISCUSSION QUESTIONS



- ★ Our planet Earth goes by many names. What are some of our planet's nicknames?
CCSS.ELA-LITERACY.RI.K.1; CCSS.ELA-LITERACY.RI.1.1; CCSS.ELA-LITERACY.RI.2.1; CCSS.ELA-LITERACY.RI.3.1;
CCSS.ELA-LITERACY.RI.4.1
- ★ Earth is part of a much larger family. Who are some of Earth's family members?
CCSS.ELA-LITERACY.RI.K.1; CCSS.ELA-LITERACY.RI.1.1; CCSS.ELA-LITERACY.RI.2.1; CCSS.ELA-LITERACY.RI.3.1;
CCSS.ELA-LITERACY.RI.4.1
- ★ Describe how the Earth and its moon are connected to one another.
CCSS.ELA-LITERACY.RI.K.1; CCSS.ELA-LITERACY.RI.1.1; CCSS.ELA-LITERACY.RI.2.1; CCSS.ELA-LITERACY.RI.3.1;
CCSS.ELA-LITERACY.RI.4.1
- ★ Discuss the changes Earth went through from its birth to just before life appeared on our planet.
CCSS.ELA-LITERACY.RI.K.1; CCSS.ELA-LITERACY.RI.1.1; CCSS.ELA-LITERACY.RI.2.1; CCSS.ELA-LITERACY.RI.3.1;
CCSS.ELA-LITERACY.RI.4.1
- ★ The Earth says that it isn't always easy being our planet. What are some of the difficulties Earth describes?
CCSS.ELA-LITERACY.RI.K.1; CCSS.ELA-LITERACY.RI.1.1; CCSS.ELA-LITERACY.RI.2.1; CCSS.ELA-LITERACY.RI.3.1;
CCSS.ELA-LITERACY.RI.4.1
- ★ Study the illustration near the end of the story where humans appear on Earth. What positive contributions by humans are represented in the detailed illustration?
CCSS.ELA-LITERACY.RL.K.7; CCSS.ELA-LITERACY.RL.1.7; CCSS.ELA-LITERACY.RL.2.7; CCSS.ELA-LITERACY.RL.3.7;
CCSS.ELA-LITERACY.RL.4.7
- ★ How does the story's first illustration about humans on Earth differ from the illustration that comes after it? Why do you think that negative changes happened?
CCSS.ELA-LITERACY.RL.K.7; CCSS.ELA-LITERACY.RL.1.7; CCSS.ELA-LITERACY.RL.2.7; CCSS.ELA-LITERACY.RL.3.7; CCSS.ELA-LITERACY.RL.4.7
- ★ Read the section on continents at the very end of the book. Discuss how the land (and names for the land) changed over time.
CCSS.ELA-LITERACY.RI.K.1; CCSS.ELA-LITERACY.RI.1.1; CCSS.ELA-LITERACY.RI.2.1; CCSS.ELA-LITERACY.RI.3.1; CCSS.ELA-LITERACY.RI.4.1



The discussion questions and activities in this guide were created by Leigh Courtney, Ph.D. She teaches in the Global Education program at a public elementary school in San Diego, California. She holds both masters' and doctoral degrees in education, with an emphasis on curriculum and instruction.

ACTIVITIES



Egg-cellent Example

Earth, or Planet Awesome as it likes to be called, is made up of layers. Use a hard-boiled egg to investigate what the Earth's layers are like. Peel the shell and use a plastic knife to cut the peeled egg in half. How are the parts of the hard-boiled egg similar to the layers of the Earth? Draw a diagram of your egg model, including the shell, and write a few sentences about which parts of the egg represent specific layers of the Earth. Which section of Earth may not be represented in your egg model? [NGSS: 4-ESS1](#)



Plate Tectonics

The outer layer of Earth is known as the crust. Using a small, round orange, investigate how the Earth's crust is made up of several plates—clementines work well for this experiment. Peel the orange carefully, removing the peel in fairly large pieces. These peels represent the Earth's tectonic plates. Compare the shape of the peels to the shape of the skinless orange. Reattach the peels back onto the orange securing each piece with a toothpick. Notice the gaps between the plates (peels). Discuss how these gaps might be connected to volcanoes and earthquakes. [NGSS: ESS2.B](#)

Earthly Timeline

Create a timeline of life on our planet. Measure a one-foot length of adding-machine tape or paper. Using the information from the story, arrange in sequence how life came to be on Earth. What came first? Second? Label each section with the type of life and how many years ago each appeared on our planet. Add illustrations representing each new phase of life on your timeline. [CCSS.ELA-LITERACY.RI.K.1](#);

[CCSS.ELA-LITERACY.RI.1.1](#); [CCSS.ELA-LITERACY.RI.2.1](#); [CCSS.ELA-LITERACY.RI.3.1](#); [CCSS.ELA-LITERACY.RI.4.1](#)

Dear Mom

At the end of the story, the author includes a letter to alien visitors who might be unfamiliar with planet Earth. Pretend that you are one of these aliens reading the author's letter. Imagine that you have visited Earth and have seen what it is like. Write a letter back to your alien home describing the land and life of planet Earth. [CCSS.ELA-LITERACY.W.K.3](#); [CCSS.ELA-LITERACY.W.1.3](#); [CCSS.ELA-LITERACY.W.2.3](#);

[CCSS.ELA-LITERACY.W.3.3](#); [CCSS.ELA-LITERACY.W.4.3](#)

Earth Museum

After our planet had breathable air, all kinds of life appeared on Earth. Over millions of years, plants, insects, dinosaurs, and mammals became a part of our planet. Investigate the early forms of life on Earth and select one for an informational poster report. Include a description of your topic, facts about how it survived, and an illustration. Create a class museum of early life on Earth. Arrange the posters in the order of the lifeform's arrival on Earth. Invite another class to tour your Earth museum.

[CCSS.ELA-LITERACY.W.K.2](#); [CCSS.ELA-LITERACY.W.K.2](#); [CCSS.ELA-LITERACY.W.1.2](#); [CCSS.ELA-LITERACY.W.2.2](#);

[CCSS.ELA-LITERACY.W.3.2](#); [CCSS.ELA-LITERACY.W.4.2](#)

NAME: _____

Earth Vocabulary



Select FOUR words from the following list of words from the story. List your selected words in alphabetical order. Use a dictionary to find a definition for each word. Write the definition and then use the word in a meaningful sentence. [CCSS.ELA-LITERACY.L.K.4](#); [CCSS.ELA-LITERACY.L.1.4](#);

[CCSS.ELA-LITERACY.L.2.4](#); [CCSS.ELA-LITERACY.L.3.4](#); [CCSS.ELA-LITERACY.L.4.4](#)

* Eruption * collision * asteroid * mantle *
* crust * core * continent *

WORD	DEFINITION
SAMPLE SENTENCE	

WORD	DEFINITION
SAMPLE SENTENCE	

WORD	DEFINITION
SAMPLE SENTENCE	

WORD	DEFINITION
SAMPLE SENTENCE	

NAME: _____

Cause And Effect



Use information from the story to help you determine how events in Earth's history are linked. Think about how one event—the CAUSE listed on the left side of the chart below—led to another event—the EFFECT. Fill in the right column of the chart with the effect connected to each cause. [CCSS.ELA-LITERACY.RI.K.3](#); [CCSS.ELA-LITERACY.RI.1.3](#); [CCSS.ELA-LITERACY.RI.2.3](#); [CCSS.ELA-LITERACY.RI.3.3](#); [CCSS.ELA-LITERACY.RI.4.3](#)

CAUSE

EFFECT

It rained for thousands of years on Earth.	
2,400,000,00 years ago breathable air became a part of Earth's atmosphere.	
An asteroid hit the Earth during the time of dinosaurs.	
The islands on Earth that formed Pangea split apart.	

NAME: _____

A Conversation Between the Moon and the Earth

Earth! My First 4.54 Billion Years is told from Earth's point of view. Early in the story we meet Earth's best friend, the moon. Imagine that the two of them could have a conversation about Earth's life.

What questions might the moon ask? How might the Earth answer? Use information from the story to write your dialogue. Continue on the back side of this page if you need more room. Share your script with a partner and read it aloud with each of you taking one of the two roles.

[CCSS.ELA-LITERACY.W.K.3](#);

[CCSS.ELA-LITERACY.W.1.3](#); [CCSS.ELA-LITERACY.W.2.3](#); [CCSS.ELA-LITERACY.W.3.3](#); [CCSS.ELA-LITERACY.W.4.3](#)













