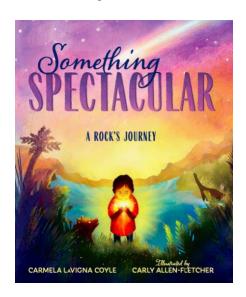
A teacher's guide created by Marcie Colleen



based upon the picture book written by Carmela LaVigna Coyle and illustrated by Carly Allen-Fletcher

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This classroom guide is designed for students in first through fourth grade. It is assumed that teachers will adapt each activity to fit the needs and abilities of their own students.

It offers activities to help teachers integrate *Something Spectacular:* A *Rock's Journey* into the curricula.

All activities were created in conjunction with the Common Core and other relevant content standards.

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To learn more about Carmela LaVigna Coyle, visit her at <u>carmelacoyle.com</u>. To learn more about Carly Allen-Fletcher, visit her at <u>carlydraws.com</u>.

Before You Read...

Before reading Something Spectacular: A Rock's Journey...

Look closely at the Front Cover ~

- Read the title aloud.
- Describe what you see.
- Who do you think the person is? What are they doing?
- Imagine you are the child in the illustration. How does this pose make you feel?
- When do you think this story takes place? Today or a long time ago? What clues on the cover tell you this?
- Can you guess what the story might be about?

The Back Cover~

- Describe what you see.
- Read the text on the back cover.
- Does this text make you want to read the book? Why or why not?

The Endpapers ~

- Describe what you see.
- Look closely at each item on the map. Create labels explaining what each item might represent in the story.

The Title Page ~

- Describe what you see.
- What is different about this illustration of Earth? What is similar?
- This supercontinent was called Pangea. Conduct an internet search for further information about Pangea and our ever-changing planet.



English Language Arts

Reading Comprehension

Now read or listen to the book.

Something Spectacular: A Rock's Journey is written as a parallel story on two different timelines—the hiking adventure of the girl who finds the heart-shaped rock and the formation of the rock over hundreds of million years.

Help students summarize both timelines in their own words. A table like the one below can be used, if helpful.

The rock's lifespan	Beneath the bottom of a forgotten sea in a hunk of sandstone.	Fissuring, fracturing, splintering, and hurtling out of the sandstone	
The girl's day	Wake in the morning	Have breakfast	

Let's talk about the people who made Something Spectacular.

- Who is the author?
- Who is the illustrator?
- What kind of work did each person do to make the book?

Now, let's look closely at the illustrations.

- Carly Allen-Fletcher provides a visual map of the girl's timeline on the endpapers. Using a similar style with crayon, create a visual map of the rock's timeline.
- The white graphic at the bottom of each spread depicts an historical timeline reimagined by the artist. It was created to connect the reader to the way Neanderthals recorded history through cave art. Later, many indigenous people recorded their historical events through pottery art. Using the same style, and some white markers, create a story of the timeline of your day or week on black paper.

- Display the finished timelines in the classroom.
- To learn more about how scientists measure time with radiocarbon dating visit https://mocomi.com/carbon-dating/.

Reading Nonfiction

While reading Something Spectacular aloud to the class, have students take notes in two columns:

- Things We Learned
- o Questions We Have

Pause before each page turn to add notes to the columns. These columns can either be individual or hung on the board and worked on as a class.

Things We Learned (Facts)	Questions We Have	Answers We Found	

- Once the story is read, discuss the Questions We Have column.
 - Were any of these questions answered as the story went along?
 - o If so, ask students to find the answer within the text.
 - Record the answer next to the question in a third column labeled Answers We Found.
- For all remaining questions in the Questions We Have column, that have yet to be answered, students will need to take the steps to find answers, either through Internet or book research.
 - Discuss how to find answers to questions through research.
 - Assign students to specific questions to help them focus.
 - Record all answers in the Answers We Found column.
- After the answers have been shared with the class, engage in a discussion on research practices.
 - o What was the most difficult about finding answers?
 - o Was it easier to find answers on the Internet or in a book?
 - Which source is more reliable, the Internet or a printed book? Why?
 - o How can you determine whether to trust a source?
 - o What tips would you give someone who is about to do research?
- Read the Are You A Heart-Rockhound? section at the back of the book.



- Why do you think the creators chose to include this information in the back matter?
- Choose three facts from the back matter that you found interesting.
- o How does this information add to your enjoyment of the book?

Extension: Design and illustrate posters representing each Fact, Question, and researched Answer based on *Something Spectacular* and display them within the classroom.

Rock On! Vocabulary

Something Spectacular contains many "rock and geological-related" words which may be new for students. Encourage them to use context clues from both the text and illustrations to infer meanings.

behemoth	fissuring	fracturing	splintering
bygone	comet	eroded	meteor showers
ravine	plummeting	bunchgrass	gully
tooled	buffed	terrain	coaxed

Additional Exploration:

- While they read, ask students to look carefully for words they do not know. As soon as they come across a new vocabulary word, they should jot it down.
- Look up the unknown word in the dictionary. (Depending on the level of your students, a student volunteer can do this, or the teacher can.) Read the definition.
- Come up with a way to remember what the word means. Using Total Physical Response, students can create an action that symbolizes the word and helps them remember it.

Onomatopoeia

Onomatopoeia is an imitation of a sound in words. In *Something Spectacular* onomatopoeia is used to describe the many sounds of geological change, such as whooshed, slooped, and crick-crackled.

- Discuss why writers use onomatopoeia, and perhaps why author Carmela LaVigna Coyle chose to use onomatopoeia when writing this story.
- Create a list of onomatopoeia from *Something Spectacular*.
- As a class, create a soundscape for Something Spectacular. Create your own onomatopoeia for the pages which do not include any already.



• Demonstrate how conductors use hand motions to set the tempo and noise level of an orchestra. Conduct the class in a musical symphony of this heart-shaped rock's story.

Write the Scene

The girl in *Something Spectacular* is on a hike and while readers are told some of the moments that happen before and during that hike, many of the details are left to the imagination.

Pretend that you are the girl and write a journal entry about this hike.

- Why is she going hiking today?
- Who does she hike with?
- Where does her hike start?
- How does she feel on the hike?
- She is in search of something spectacular. What does something spectacular mean to her?
- List the many spectacular things she sees.
- What are some of the conversations she has with others on the hike?
- How does her day end?
- What does she plan to do with her heart-shaped rock?

Be sure to include a beginning, middle, and end to the journal entry.

Wish You Were Here ~ Postcards from the Colorado Plateau

The story of *Something Spectacular*, though never mentioned, is intended to be the Colorado Plateau.

If you were to travel to the Colorado Plateau today:

- How would you get there?
- What would you see?
- What would you hear?
- What would you do?
- What would the weather be like?



Create a large postcard of your trip to the Colorado Plateau. Be sure to illustrate one side and include a note to a best friend or family member on the other side. Be sure to be descriptive, so that the person who gets the postcard can best imagine your trip.

Display the postcards on a bulletin board, along with a map indicating where the Colorado Plateau is located.

Science

All About Rocks Research Project

Take a nature walk on the search for a rock. Once you found your rock, sketch it, or take a picture of it.

Closely observe your rock. Look for sediment, minerals, and other easily observable characteristics. Pay attention to various characteristics like size, smoothness, and color.

Take notes and gather as much information as possible on the following:

- How it looks
- How it feels
- · Where it was found
- Other rocks found around it
- Other fun facts

Then, head to the school library to research and explore more about your rock.

There are three kinds of rocks:

- sedimentary rocks made up of sediment (small rocks, shells, sand, decaying matter, mud) that has been deposited in layers, like pages stacked in a book, and "cemented" together by pressure.
- metamorphic rocks which are basically sedimentary rocks that have changed under extreme pressure and/or heat.
- igneous rocks which were once magma (melted rock) from deep in the earth's surface that has cooled.

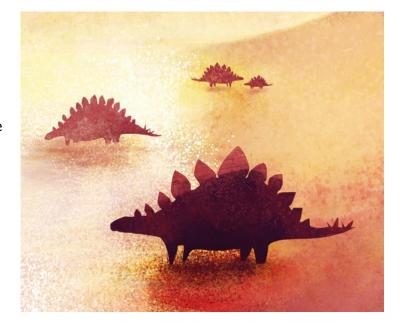
Possible sources for information:

- Nonfiction books
- Encyclopedias
- The Internet

What kind of rock do you think you have? Explain your answer.

Once the information is gathered, work to create an illustrated poster all about your rock.

How does your researched rock compare to others your classmates found? What are the similarities? What are the differences?



The Rock Cycle

All living things have life cycles, even rocks! As seen in *Something Spectacular*. The rock cycle is simply a name for the process in which rocks can be formed.

A fun science song about the three types of rocks can be found here: https://www.youtube.com/watch?v=jPqE74Vltdc.

Using crayon shavings, experiment with how sedimentary rocks, like those in Something Spectacular are formed.

You will need:

- 1/4 cup or more crayon shavings from broken or old crayons
- A piece of heavy aluminum foil
- A rubber mallet or hammer
- A candle or microwave

To create a sedimentary rock:

- · sandwich crayon shavings in some aluminum foil
- press or hammer the aluminum foil until the crayon shavings stick together
- the individual pieces that make up the "rock" will still be visible and somewhat brittle

To create a metamorphic rock:

- press or hammer the "sedimentary crayon rock" more
- place the aluminum foil, with the "rock" in it, over the heat from a candle
- repeat these steps until the colors begin to blend together and become a more solid "rock."
- the individual piece that makes up the "rock" will no longer be visible. They've been changed by the heat and pressure.

To create an igneous rock:

- continue heating the "rock" until it melts completely
- allow it to cool
- the rock will look 100% different than any of the pieces that originally made up the rock

Then, using what you learned about how each type of rock is created, design a poster explaining the rock cycle to others.



Did you know that in some state and national parks rock collecting is not allowed?

Invite a state or national park ranger to your class or ask them to visit via video chat to teach about the landscape, rock formations, and how we can work together to preserve them.



Write a list of questions ahead of time and provide them to the park ranger.

During the visit, practice taking notes and creating follow up questions.

After the visit, draft a written report and present what you learned.

Get Involved with the National Parks

There are several ways kids can get involved with national parks projects throughout the country. In fact, many national parks have novice and kid science programs. Check the following Internet links for more information.

The Sierra Club: http://www.sierraclub.org/sierra/2016-4-july-august/green-life/five-national-park-citizen-science-projects-anyone-can-join

"Every Kid in a Park" Program: https://www.nps.gov/kids/index.cfm

Contact your local Nature and Science Museums for info about the rock cycle.

Social Studies

"Nothing is Constant" Mural Activity

Just like the rock changed over several million years, everything changes. As a class, work together to create a mural based on the idea that "nothing is constant."

First brainstorm a list of the things that have changed to include in the mural. People, places, circumstances all change over time.

Using art supplies, everyone can create their own section of the mural on a piece of paper, depicting things that change.

When everyone is finished, arrange the pieces of art like a quilt on a wall or bulletin board.

Display the mural with the title "Nothing is Constant."

