

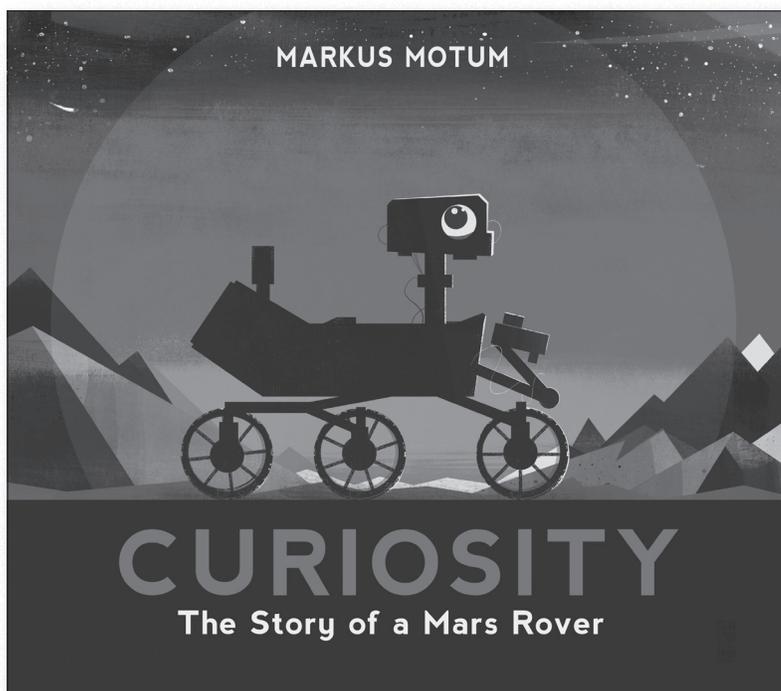
CURIOSITY

The Story of a Mars Rover

MARKUS MOTUM

About the Book

“Wherever you are in the world right now, I’m a very long way away.” So starts the story of the Mars rover *Curiosity*, whose first-person narrative describes how it got to Mars in 2012 and what it does there. The jaunty rover explains why NASA wants to explore Mars, relating what makes *Curiosity* a great vehicle for that enterprise. Expansive illustrations convey the long journey through space, and diagrams depict features of the rover and the mission’s rocket. Readers will cheer along with the NASA team and the rest of the world when *Curiosity* dramatically lands on the red planet.



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About the Author-Illustrator

Markus Motum studied illustration at the University for the Creative Arts in England, where he rediscovered his love of picture books. *Curiosity* is his first book for children. He lives in Brighton, England.

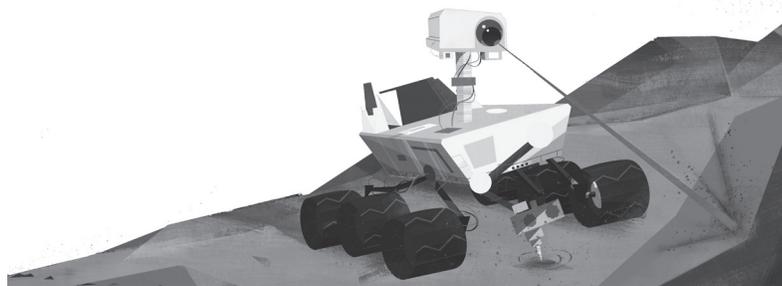


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This guide was prepared by Kathleen Odean. Kathleen was a school librarian for more than fifteen years and now presents all-day workshops on new books for young people, including one that focuses on Common Core nonfiction.


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Common Core Connections

In this book, the Mars rover *Curiosity* comes across as an appealing character whose voice introduces space science and engineering concepts. In keeping with CCSS for reading informational text, the narrative incorporates domain-specific vocabulary while the illustrations visually present and reinforce content. Text features such as bold print, labels, and a glossary also fulfill CCSS criteria. Although CCSS don't address science and engineering at this level, the related Next Generation Science Standards require coverage of space science and engineering design for elementary grades, a perfect fit with *Curiosity: The Story of a Mars Rover*.

Discussion Questions

1. Look at the glossary before you start reading the book, and refer back to it if you encounter a word you don't know. Which words are you already familiar with? Which new ones do you think you might use again? Was the glossary helpful? What kinds of books need glossaries, and why do they need them?
2. The author could have explained *Curiosity* and its mission in a third-person voice but instead chose to have the rover speak to the reader in the first person. Why do you think the author made that choice? What difference does it make to hear directly from the rover? Find questions in the text and discuss why the voice of *Curiosity* asks questions instead of just giving information.
3. Why did NASA (National Aeronautics and Space Administration) decide to concentrate on the planet Mars as the best place to look for other life? What makes it so difficult to study Mars?
4. What is a rover? Describe its size and its basic parts. What did some of the rovers that came before *Curiosity* do? Why was a rover instead of a human sent to Mars? Why was it so important to keep the lab where *Curiosity* was built as clean as possible, and how did the scientists do it?
5. How did *Curiosity* get its name? Discuss the quote on the last page of the narrative from the sixth-grade girl who suggested the name. Do you think *Curiosity* was a good choice? Why?
6. Describe *Atlas V* and its role in getting *Curiosity* to Mars. Which parts of the rocket came apart in space, and why did that happen? Which parts of the rocket made the journey all the way to Mars?
7. *Curiosity* explains in the narrative that landing safely “would be the trickiest part of my entire journey.” Why was landing so tricky? What were the steps necessary for landing? What problem occurred during landing?
8. What kind of information has *Curiosity* gathered so far? Why is that information useful? What parts of the rover's design are used for gathering information? How does the information get back to NASA scientists?
9. How can you tell that the team at NASA cared about the mission? What details show their worries about the landing and their happiness when it went well? Why do you think people around the world cared about *Curiosity* and its success?
10. Discuss the role of the illustrations in conveying information and emotions. Find pictures that illustrate the information given in the text. Find others that add information not given in the text, as well as some that convey emotion. How do diagrams, labels, the time line, and other special features help the reader learn?

Extension Activities

1. Together as a class, watch some of NASA's short videos about *Curiosity*, such as “*Curiosity's* First Five Years of Science on Mars” (found here on the NASA website: https://www.nasa.gov/mission_pages/msl/index.html). In a discussion, have students compare reading a book and watching a video about a similar topic in this case and in general. What are the advantages and disadvantages of each medium? How do they complement each other?
2. Have the class make a list of the names of vehicles, such as *Curiosity* and *Atlas V*, and NASA missions, such as *Mariner*, *Viking*, and *Pathfinder*. Have pairs of students select a name, research its origin, and analyze why the name might have been chosen. They should report back to the class with their research and conclusions.
3. Hold a classroom contest for naming a NASA vehicle or mission. As a group, decide what kind of future NASA vehicle or mission to name. Students can take inspiration from names NASA has already used or come up with entirely new ones. Each student should explain his or her choice. Then have the class vote for the one they like best.
4. NASA, a government agency, was created in 1958 to explore space. Have students choose an aspect of NASA mentioned in the book — a mission, the Jet Propulsion Lab, the Kennedy Space Center — or another related NASA topic for a simple research project based on print and digital resources. They should give a short multimedia presentation to the class using their findings.
5. Humans have not yet visited Mars. Have students imagine that they are on the first successful NASA mission of humans to reach Mars. They should write journal entries about the journey, the landing, and what they find there, conveying emotions such as excitement or loneliness as well as information.