

### Educator Information and Directions

This PDF provides the materials that accompany the lesson “*Hidden Figures*.” This PDF contains activities for students to complete before, during, and after they read the passage. Highlighted words within the passage indicate vocabulary words that will be referred to in assessment questions.

#### Student Reading Guide

##### Before Reading

- Read some information about today’s passage.
- Start thinking about the topics in the passage by answering the questions.

##### During Reading


- Read the **Purpose for Reading**.
- Read the passage.
- Take notes and annotate what you are reading.

##### After Reading

- Reflect on what you have read by answering the questions.
- Complete the **Online Assessment** questions.

### Taking Notes and Annotating

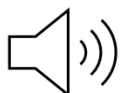
Here are some strategies for annotating and taking notes **in the text itself**:

- **Highlight** or underline important words or words you don’t know.
-  key concepts and ideas.
- Use abbreviations or symbols. For example:

|   |  |
|---|--|
| ? | To show confusion or questions         |
| M | To show the mood                       |
| ★ | To show important details              |
| ♥ | To show the feelings of the characters |

Here are some strategies for annotating and taking notes **in the notes section** under the text:

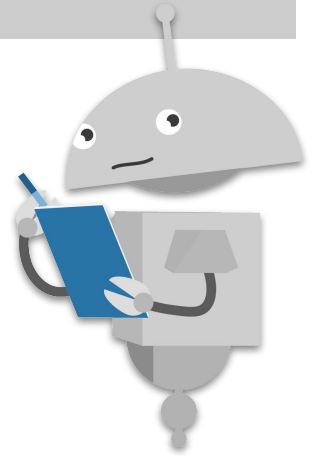
- Summarize key points in your own words.
- Write brief comments and questions.



If you would prefer to listen to the passage, click the link to access an audio recording: [Link to Audio Recording of Passage](#)

## Before Reading

Today's passage, an excerpt from *Hidden Figures* by Margot Lee Shetterly, reveals the author's personal connection to a community of scientists, including her father, at NASA's Langley Research Center. Her discovery of the untold stories of African American women mathematicians at NASA inspired her to share their remarkable history with the world.



Before you read today's passage, think about who or what inspires you and how you could use that inspiration to reach a future goal.



Now, imagine you were part of the team that worked behind the scenes during the early days of space exploration. What role would you have played? Be creative and write or draw to share your ideas below.



Reflect on your feelings about the subject of math. Do you enjoy it or not? How do you think math might be connected to space exploration? Write or draw to share your thinking below.

## During Reading



**Purpose for Reading:** The following passage is an excerpt from the literary nonfiction book *Hidden Figures Young Readers' Edition*, by Margot Lee Shetterly. This excerpt describes the author's visit to her hometown, which inspired her to write about the true story of four African American women who helped launch the United States into space. As you read, think about how the author's connection to the story contributes to the theme.

While you read, remember to annotate and take notes! You can review strategies for annotation on page 1 of this PDF.

### **Excerpt from *Hidden Figures Young Readers' Edition* by Margot Lee Shetterly**

(1) Growing up in Hampton, Virginia, I assumed the face of science was brown like mine. My dad worked at the Langley Research Center at NASA, the National Aeronautics and Space Administration. He started there as an engineering intern in 1964 and retired as an internationally respected climate scientist in 2004. Our next-door neighbor taught physics. Our church pews were crowded with mathematicians. I knew so many African Americans working in science, math, and engineering that I thought that's just what black folks did.

(2) My father, who as a high school student had wanted to study electrical engineering, lived a different story. "Become a physical education teacher," my grandfather told him. He thought my dad would have trouble finding work as an engineer. In the 1960s, most college-educated African Americans took teaching jobs or worked for the post office. As late as 1970, just 1 percent of all American engineers were black, and my father was one of them.

**(continued)**



### Excerpt from *Hidden Figures Young Readers' Edition* by Margot Lee Shetterly

(3) Because of my father's job, I was part of the NASA family. I grew up saving my allowance to buy tickets to ride ponies at the annual NASA carnival and sharing my Christmas wish list with the Santa at the NASA holiday party. On Thursday nights, I sat with my family and cheered for the Stars, my dad's NBA team (that's the NASA Basketball Association).

(4) My Sunday school teacher worked at NASA as a “computer,” doing the complex math for the aerospace engineers. She wasn't alone: from the 1940s through the 1970s, hundreds of women, many of whom were black, worked as mathematicians at NASA. It wasn't until I was older that I appreciated just how extraordinary this occupation was for black women in the South during the days of segregation. The first five women were hired at Langley as computers in 1935, and they were white. Ten years later, there were more than four hundred women working as mathematicians, and many of them were black.



Photo of Katherine Johnson, one of NASA's “computers,” in 1966.

Katherine Johnson at NASA, in 1966. Katherine Johnson, NASA employee, mathematician and physicist, in 1966. <https://royal.com/media/katherine-johnson-at-nasa-in-1966-7606ec>

(continued)

## During Reading (continued)



### Excerpt from *Hidden Figures Young Readers' Edition* by Margot Lee Shetterly

(5) The contributions made by these African-American women have never been **heralded**, but they deserve to be remembered – and not as a side note in someone else’s account, but as the center of their own story. These women should be celebrated not just because they are black or because they are women, but because they are an important part of American history.

Shetterly, Margot Lee. *Hidden Figures Young Readers' Edition*. HarperCollins Children's Books, 2016.



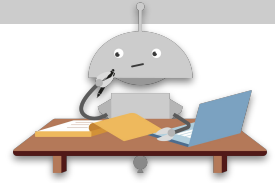
Photo of Mary Jackson, one of NASA’s “computers,” in 1977.

### Notes

## After Reading



How did growing up in Hampton, Virginia influence the author's connection to science and math? Write or draw to share your response below.



Why do you think the author believes it is important to remember and celebrate the contributions of the African American women who worked behind the scenes at NASA? Write or draw to share your response below.

After you are done reading and answering these questions, you may want to ask yourself some more questions, like...

- Why did the author choose a literary nonfiction style for this story?
- What is the the theme of the passage?

You may even want to read the passage a second or third time! When you feel ready, go ahead and take your assessment!