

Discussion Guide for *Hidden Figures*

The movie *Hidden Figures*, based on the book of the same name by Margot Lee Shetterly, is the true story of three brilliant African-American women at NASA: Katherine Johnson, Dorothy Vaughan, and Mary Jackson. The movie highlights their intelligence, sisterhood, and perseverance, as well as the racial and gender discrimination which affected their lives. This guide is designed to engage middle and high school youth, as well as adults, in a discussion about the film. Visit www.techbridgegirls.org for additional resources, such as family guides and hands-on activities, to get youth interested in science, technology, and engineering.

1. What parts of the movie do you remember most, and why?
2. The movie took place during a time in the United States when black and white people were segregated, and black people were treated unfairly.
 - a. How were Katherine, Mary, Dorothy, and their co-workers challenged by discrimination? How did they succeed anyway?
 - b. How did the white people in the movie react to segregation?
 - c. What practices in our current day remind you of the segregation in the movie? Have you been treated unfairly because of your race and/or gender? Have you seen someone else treated unfairly because of their race and/or gender? What did you do or say? Would you act differently in the future?
3. How does the math you are studying now connect to this work? What is a “computer”? How has our use of that word changed?
4. How has the experience of women and people of color working in science, technology, engineering, and math (STEM) changed since the 1960s? What kinds of jobs do you think were usually available to women then? Was it the same for white women and women of color?
5. Mary Jackson showed great perseverance as she tried to get the opportunity to earn her engineering degree. In court, she argued “someone has to be the first.” Have you ever felt you were first to do something? Why is being first at something both exciting and scary? Why do you think Mary fought so hard to get her engineering degree?
6. Dorothy Vaughan stood up for herself *and* for other women several times in the movie. When did you notice Dorothy being an example of what it means to be part of a sisterhood of women?
7. When did you notice other people standing up for Dorothy, Katherine, and Mary? Why was it important for them to have male allies (supporters) and white allies?
8. What was the role of friends and family members in supporting Katherine, Dorothy, and Mary? How did they support each other? Why is having a support system important?
9. What would you do if you were told you could not pursue a career or job because of how you look or who you are?
10. What can you, as a student, parent, or ally, do to help others, especially young people, break barriers as Katherine, Mary, and Dorothy did?

Additional Resources for Discussing *Hidden Figures*

The Women of *Hidden Figures*

- ***Hidden Figures* - Margot Lee Shetterly** (link to a short teacher's guide):
<https://www.harpercollins.com/9780062363596/hidden-figures>
- ***Hidden Figures* Young Readers' Edition - Margot Lee Shetterly**
<https://www.harpercollins.com/9780062662385/hidden-figures-young-readers-edition>
- **Real People Behind NASA's *Hidden Figures*** (video of NASA education event) <https://www.youtube.com/watch?v=S0STm4i5hIE>
- **Who is Katherine Johnson?** (part of the NASA Knows! series for Grades 5-8)
<https://www.nasa.gov/audience/forstudents/5-8/features/nasa-knows/who-is-katherine-johnson-5-8>
- **Computer Facility Named After "Human Computer" Katherine Johnson**
<https://www.nasa.gov/feature/langley/computational-facility-named-in-tribute-to-nasa-langley-math-master-katherine-johnson>
- ***Hidden Figures: The Female Mathematicians of NACA and NASA*** (March 2014 presentation)
<https://www.youtube.com/watch?v=qkd9sNZG6SU>

Talking about race and gender with your children

- **Raising Race Conscious Children:** <http://www.raceconscious.org/strategies/>
- **Showing Up for Racial Justice:** <http://www.showingupforracialjustice.org/>
- **A Mighty Girl:** <http://www.amightygirl.com/blog?p=10940>
- **The ABCs of How to Talk to Your Child About Differences** (see first page)
http://www.bordercrossers.org/ABCs_Teacher_doc_Parent_doc_0910b.pdf

Gender and STEM

- **Changing The Game for Girls in STEM: Findings on High-Impact Programs and System-Building Strategies:**
<http://www.techbridgegirls.org/changingthegame>
- **Role Models Matter:** toolkit and resources to prepare STEM professionals for outreach
<http://www.techbridgegirls.org/rolemodelsmatter>
- **National Girls Collaborative Project:** <https://ngcproject.org/resources>
- **Femininity and STEM**
http://truechild.org/Images/Interior/learnthefacts/___femininity%20&%20stem.pdf
- **Eight Ways To Increase Male Advocacy (National Center for Women & Information Technology)**
<https://www.ncwit.org/resources/ncwit-tips-8-ways-increase-male-advocacy-0>

STEM Resources

- **Techbridge Girls:** <http://techbridgegirls.org/>
- **Washington STEM:** <http://www.washingtonstem.org/>
- **Washington State Opportunity Scholarship:** <https://www.waopportunityscholarship.org/>
- **IBM and STEM Education:** <https://www.ibm.com/blogs/citizen-ibm/category/stem-education-2>
- **Women at NASA** with free posters to download (<http://chandra.si.edu/women/>). Be sure to check out the detailed "Women of Color: Pioneers and Innovators at NASA" lithograph with Katherine Johnson, Mae Jemison and others at http://chandra.si.edu/women/images/women_litho.pdf