

Grade 7

ELA Remote Learning Assignments

Week 2: March 30th through April 3rd

This week we are launching a new ELA unit entitled: "Resilience and Success". For each day's work be sure to continue to use all the strategies that you have learned thus far! If you do not have a printed copy of the passages, be sure to annotate the text on a piece of paper and also include a main idea for each passage. Reach out to your teacher if you have questions.

| DAY | ASSIGNMENT | LINKS |
|----------------------|--|--|
| Monday 3/30/2020 | Part I: Read the following passage and only complete multiple-choice questions 1 - 4: | Part I • CommonLit - "The Women of Hidden Figures" |
| | "The Women of Hidden Figures" Part II: Log into NewsELA through your Clever account and read one article of your choice and complete the accompanying multiple-choice | Click here to submit your answers on Illuminate. Part II Click here to read an article on newsela.com |
| Tuesday 3/31/2020 | Part I: Re-read the following passage and complete the short response question found after the multiple choice: 1. "The Women of Hidden Figures" Part II: Log into NewsELA through your Clever account and read one article of your choice and complete the accompanying multiple-choice questions | Part I |



| | T | T |
|----------------------|--|---|
| Wednesday 4/1/2020 | Part I: Read the following passage and only complete multiple-choice questions 1 - 4: | Part I • <u>"When Women Stopped Coding"</u> |
| | "When Women Stopped Coding" Part II: Log into NewsELA through your Clever account and read one article of your choice and complete the accompanying multiple-choice questions | Click here to submit your answers on Illuminate. Part II Click here to read an article on newsela.com |
| Thursday 4/2/2020 | Part I: Re-read the following passage and complete the short response question found after the multiple choice: | Part I • "When Women Stopped Coding" |
| | 2. "When Women Stopped Coding" Part II: Log into NewsELA through your Clever account and read one article of your choice and complete the accompanying multiple-choice questions | Submit your short-response Google Classroom Bronx Campus LES Campus Part II Click here to read an article on newsela.com |
| Friday 4/3/2020 | Part I: Discussion Question In what ways were the gaming and television industries being prejudiced towards girls when they created the "geek boy" narrative? Why couldn't there be geek girls? Describe a time when you have been discouraged from taking part in an activity because of your gender. Connect your answer with both texts you have read this week. | Part I ■ Go to Google Classroom to have your discussion. ➡ Bronx Campus ➡ LES Campus |



| Class: |
|--------|
| |

The Women of Hidden Figures

By Jessica McBirney 2017

Beginning in 1955, the United States and the Soviet Union began competing in the Space Race, a race to determine who would achieve superiority in spaceflight. The following text describes some of the people who made significant contributions to this race and who were, until recently, hidden from popular history. As you read, take notes on the challenges that each woman faced due to prejudice based on her race and gender.

[1] When the movie *Hidden Figures* hit theaters in December 2016, few Americans had ever heard of Katherine Johnson, Dorothy Vaughan, Mary Jackson, or any of the women who worked as "computers" behind the scenes of the Space Race in the 1960s. These women and their peers at NASA are a key part of American history. African American women did much of the difficult number-crunching for our most famous space missions, including John Glenn's first orbit of the Earth.



The film Hidden Figures was based on the 2016 by NASA

book, Hidden Figures: The American Dream and the

HQ PHOTO is licensed under CC BY-NC-ND 2.0.

Untold Story of the Black Women Who Helped Win

the Space Race by Margo Lee Shetterly. The film and book tell the stories of three African American women who accomplished incredible things in the fields of science and mathematics, and who made great contributions to the fight for gender and racial equality.

Katherine Johnson

Katherine Johnson, born in 1918, always loved numbers. She says she "counted everything," from steps to silverware. She grew up in West Virginia, where she advanced to high school by the age of 10.

Getting a high school education was not easy for an African American student in the 1930s. The county where she lived did not offer public schooling for African American students beyond eighth grade, so she and her parents moved to a different city — Institute, West Virginia — so she could continue her education. She was clearly a gifted student, and she was exceptionally good at math. She graduated from high school at 14 and sped on to graduate from college at age 18.



[5] Johnson decided to spend the next several years caring for her children at home and working as a teacher. By 1953, her children were older, and she went to work at the National Advisory Committee for Aeronautics, or NACA (which eventually came to be known as NASA in 1958). Around this time.

NACA began hiring both white and black women to be "computers" — not the handy machines we have today, but skilled mathematicians who performed all the tedious calculations necessary for safe space flight.

Johnson stood out as an impressive computer. Engineers at NACA used her notes and equations in lectures they gave to trainees. She completed trajectory calculations for the Freedom 7 mission 2 in 1961 to ensure the rocket would head in exactly the right direction.

In 1962, John Glenn, the first American to orbit the Earth, specifically requested that Johnson do all the calculations for his famous orbital mission. The government had recently begun using automated computers (more like the computers we have today) to perform these calculations, but Glenn preferred that Johnson complete them herself.

Later in her career, Johnson helped with Space Shuttle missions and authored or coauthored 26 research reports. She received the Presidential Medal of Freedom in 2015.

Dorothy Vaughan

In 1943, at the height of World War II, Dorothy Vaughan left her job as a math teacher in Virginia to take a temporary job in the government. She wanted to serve her country, so she worked as a computer for NACA.

[10] A recently-signed law outlawed racial discrimination in hiring, but African American computers still had to sit in a separate office and use a separate bathroom from their white counterparts. Additionally, all the supervisors were still white.

Vaughan played the role of unofficial supervisor to her office of African American computers, managing her peers and answering questions, but she did not get paid any more to reflect her work. She addressed this problem with her superiors, and she became NACA's first black supervisor in 1949.

NACA engineers came to value her group of computers and often requested them specifically for difficult projects. They also trusted Vaughan's judgment and asked for her recommendations on whom they should hire.

As a supervisor, Vaughan had the opportunity to learn how to use NACA's first computing machines. She quickly mastered the programming language that made them work properly, and many looked to her for guidance as they learned how to use the new machines as well.

Mary Jackson

Mary Jackson was one of the computers who worked directly under supervisor Dorothy Vaughan. She joined NACA in 1951, after several career changes and earning a degree in Math and Physical Sciences.

- 1. Tedious (adjective): long and tiresome
- 2. the first United States human spaceflight



[15] After two years as a computer, she received an offer to work directly with one of NACA's engineers, who designed super-high-speed wind tunnels. Female engineers were almost unheard of at the time — not to mention black female engineers!

But she faced a problem; to become a full-fledged engineer, she had to complete several graduate-level courses. At the time, these classes were only held in a segregated high school in the evenings. Jackson had to go through the city government to get special permission to attend these classes so she could serve as a NACA engineer.

She earned her degree and became an engineer in 1958. She worked in this role for almost two decades, co-authoring reports and conducting scientific research. By 1979, Jackson had reached the highest level of the engineering department, but she grew frustrated that she was not promoted beyond that to a managerial position. Instead of continuing her career as a scientist, Jackson switched careers yet again, this time to serve NASA as the Federal Women's Program Manager. In this role she worked hard to make sure the government hired and promoted women and minorities.

Each of these three women played a unique role in promoting the equality of African American women in the workplace. Katherine Johnson showed her superiors how detailed and reliable a female mathematician can be. Dorothy Vaughan proved to the administrators at NACA that she, too, could lead large groups with skill. And Mary Jackson fought discrimination to earn advanced engineering degrees that few women and African Americans before her had received. These women — and the entire group of African American mathematicians at NACA — had a remarkable impact on the push for equality.

"The Women of Hidden Figures" by Jessica McBirney. Copyright © 2017 by CommonLit, Inc. This text is licensed under CC BY-NC-SA 2.0.



Submit your answer into Illuminate by clicking here.

Text-Dependent Questions

Directions: For the following questions, choose the best answer or respond in complete sentences.

- 1. PART A: Which statement expresses the central idea of the text?
 - A. Johnson, Jackson, and Vaughan challenged prejudice at NACA to accomplish what African American women had never been allowed or expected to do before.
 - B. While all NACA "computers" helped advance women and African American rights, Johnson was responsible for grabbing the nation's attention.
 - C. The public wasn't aware of African American women's role in NACA until recently because the organization kept their involvement a secret.
 - D. Johnson, Jackson, and Vaughan would have gone on to accomplish great things at NACA if it weren't for the discrimination they faced because of their gender and race.
- 2. PART B: Which detail from the text best supports the answer to Part A?
 - A. "few Americans had ever heard of Katherine Johnson, Dorothy Vaughan, Mary Jackson, or any of the women who worked as 'computers' behind the scenes of the space race in the 1960s." (Paragraph 1)
 - B. "In 1962, John Glenn, the first American to orbit the Earth, specifically requested that Johnson do all the calculations for his famous orbital mission." (Paragraph 7)
 - C. "By 1979, Jackson had reached the highest level of the engineering department, but she grew frustrated that she was not promoted beyond that to a managerial position." (Paragraph 17)
 - D. "Each of these three women played a unique role in promoting the equality of African American women in the workplace." (Paragraph 18)
- 3. How do paragraphs 10-11 contribute to the development of ideas in the text?
 - A. They show how NASA was not prejudiced against employees based on race.
 - B. They prove that racial discrimination persisted, despite recent changes in the law.
 - C. They reveal why segregation was allowed to persist among NACA "computers."
 - D. They emphasize how difficult it was for women to be promoted in NACA.
- 4. Which statement best describes the relationship between the women's stories and their popularity today?
 - A. The three women described in the text have become famous because of the book they wrote about their experiences.
 - NASA recently revealed their importance in John Glenn's 1962 space orbit.
 - C. A 2016 book and film made Johnson, Vaughan, Jackson, and their legacies well known.
 - D. Vaughan's, Jackson's, and Johnson's contributions are still being debated, and NASA does not believe their contributions were significant.





Discussion Questions

Directions: Brainstorm your answers to the following questions in the space provided. Be prepared to share your original ideas in a class discussion.

| 1. | Why did race and gender influence the way people were treated at NASA? What challenges did African American women encounter that white women did not? Have you ever been prevented or discouraged from doing something because of your race and/or gender? |
|----|--|
| 2. | How do you think the actions of Katherine Johnson, Dorothy Vaughan, and Mary Jackson changed how African American women were perceived and treated? |
| 3. | In the context of this text, why do people succeed? What qualities help a person succeed? Cite evidence from the text and consider your own experiences in your answer. |



| Name: | Class: |
|-------|--------|
| | |

When Women Stopped Coding

By Steve Henn 2014

In this informational text, Steven Henn explores why fewer women are coding and pursuing careers in computer science. As you read, take notes on boys' experiences using and accessing computers.

[1] Modern computer science is dominated by men. But it hasn't always been this way.

A lot of computing pioneers — the people who programmed the first digital computers — were women. And for decades, the number of women studying computer science was growing faster than the number of men. But in 1984, something changed. The percentage of women in computer science flattened, and then plunged, even as the share of women in other technical and professional fields kept rising.



<u>"wocintech (microsoft) - 177"</u> by WOCinTech Chat is licensed under CC BY 2.0

What happened?

We spent the past few weeks trying to answer this question, and there's no clear, single answer.

[5] But here's a good starting place: The share of women in computer science started falling at roughly the same moment when personal computers started showing up in U.S. homes in significant numbers.

These early personal computers weren't much more than toys. You could play pong or simple shooting games, maybe do some word processing. And these toys were marketed almost entirely to men and boys.

This idea that computers are for boys became a narrative. It became the story we told ourselves about the computing revolution. It helped define who geeks were, and it created techie culture.

Movies like Weird Science, Revenge of the Nerds and War Games all came out in the '80s. And the plot summaries are almost interchangeable: awkward geek boy genius uses tech savvy¹ to triumph over adversity and win the girl.

In the 1990s, researcher Jane Margolis interviewed hundreds of computer science students at Carnegie Mellon University, which had one of the top programs in the country. She found that families were much more likely to buy computers for boys than for girls — even when their girls were really interested in computers.

^{1.} having practical understanding or knowledge of something



[10] This was a big deal when those kids got to college. As personal computers became more common, computer science professors increasingly assumed that their students had grown up playing with computers at home.

Patricia Ordóñez didn't have a computer at home, but she was a math wiz in school.

"My teacher realized I was really good at solving problems, so she pulled me and this other boy out to do special math," she says. "We did math instead of recess!"

So when Ordóñez got to Johns Hopkins University in the '80s, she figured she would study computer science or electrical engineering. Then she took her first intro class — and found that most of her male classmates were way ahead of her because they'd grown up playing with computers.

"I remember this one time I asked a question and the professor stopped and looked at me and said, 'You should know that by now,'" she recalls. "And I thought 'I am never going to excel."" ²

[15] In the '70s, that never would have happened: Professors in intro classes assumed their students came in with no experience. But by the '80s, that had changed.

Ordóñez got through the class but earned the first C of her life. She eventually dropped the program and majored in foreign languages.

More than a decade later, though, she returned to computers. She found a mentor, and eventually got a Ph.D. in computer science. Now she's an assistant professor of computer science at the University of Puerto Rico.

©2014 Steve Henn for National Public Radio, Inc. News report titled "When Women Stopped Coding" by Steve Henn was originally broadcast on NPR's Morning Edition on October, 2014, and it used with the permission of NPR. Any unauthorized duplication is strictly prohibited.



Text-Dependent Questions

Directions: For the following questions, choose the best answer or respond in complete sentences.

- 1. PART A: Which statement expresses the central idea of the text?
 - A. While women initially programmed digital computers, they were pushed out of their jobs in favor of men continuing their work.
 - B. Women fell behind men in computer science because boys were often encouraged and enabled to play with personal computers.
 - C. When personal computers were developed, the games for boys helped them develop technical skills while the games for girls were useless.
 - D. From the very beginning, women were not encouraged to play or work with computers, as technology was considered to be for men.
- 2. PART B: Which detail from the text best supports the answer to Part A?
 - A. "And for decades, the number of women studying computer science was growing faster than the number of men." (Paragraph 2)
 - B. "These early personal computers weren't much more than toys. You could play pong or simple shooting games, maybe do some word processing." (Paragraph 6)
 - C. "And the plot summaries are almost interchangeable: awkward geek boy genius uses tech savvy to triumph over adversity and win the girl." (Paragraph 8)
 - D. "Then she took her first intro class and found that most of her male classmates were way ahead of her because they'd grown up playing with computers." (Paragraph 13)
- 3. What is the author's main purpose in the text?
 - A. to explore one of the reasons why the number of women in computer science dropped
 - B. to encourage women to pursue careers and studies in computer science
 - C. to show how women's experiences with personal computers compare to men's
 - D. to show readers what they can do to increase the number of women in computer science
- 4. How does paragraph 8 contribute to the development of ideas in the text?
 - A. It shows readers why boys tend to like computers more than girls.
 - B. It helps readers understand how the idea developed that computers are for boys.
 - C. It explains to readers why girls chose not to buy computers for themselves.
 - D. It shows readers what it was like growing up as a geek boy and girl in the '80s.



| According to the article, what is the relationship between owning a personal computer and later success in computer science? |
|--|
| |
| |
| |
| |
| |
| |
| |



Discussion Questions

Directions: Brainstorm your answers to the following questions in the space provided. Be prepared to share your original ideas in a class discussion.

| _ | - |
|----|--|
| 1. | Do you think girls who are in school now continue to be discouraged from showing an interest in computers and other forms of technology? Why or why not? |
| 2. | In what ways were the gaming and television industries being prejudice towards girls when they created the "geek boy" narrative? Why couldn't there be geek girls? Describe a time when you have been discouraged from taking part in an activity because of your gender. |
| 3. | In the text, Patricia Ordóñez switched her major after her experiences in her computer science class. How did she eventually overcome her negative experiences in her computer science class? Describe a time when you ignored others' opinions to do something that was important to you. |