

Home Learning Branches

Hidden Figures by Margot Lee Shetterly and Laura Freeman

Spelling Investigations

- *special, essential, artificial, official, partial, crucial.* What is the rule for using **-cial** or **-tial**? Hint: it is something to do with vowels and consonants
- *observe, hesitate, tolerate, expect, assist.* Investigate whether these suffixes: **-ant, -ance, -ancy** can be added to these root words? What word families can you create?

How many of the words above can you use in your writing?

Wider Curriculum Links

History: What can you find out about the lives of the significant individuals Dorothy Vaughan, Mary Jackson, Katherine Johnson, Christine Darden? Create a report to share their international achievements.

Science (Earth and Space): Can you describe the movement of the Earth, and other planets, relative to the sun in the solar system? Or describe the movement of the Moon relative to the Earth? Maybe draw diagrams to help.

Discussion Questions

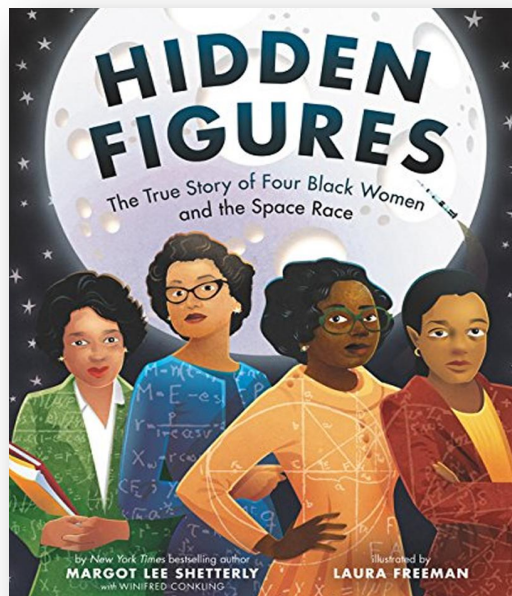
Why should we remember the achievements of these women?

How might the women have been feeling at different points in the story?

What were the times in the women's lives when they had to prove themselves?

How are these women role models?

What is your opinion of society then? Do you think things have changed?



Key Vocabulary

How many of these words do you know? Can you find the meanings of new words?

aeronautics
engineer
turbulence
wind tunnel
computer
calculating machine
data
segregated
speed of sound
sonic boom
missiles
bombers
cosmonaut
satellite
orbit

Writing Opportunities

You are now part of NASA and have a series of writing missions! Read the book and complete the challenges...

1. Your first assignment is to find out all you can about NACA and NASA! Why not create your own Wikipedia page about NASA and NACA?
2. You need new recruits to the Space Programme, create a job advert to find the perfect applicant. What skills and characteristics will they need?
3. In the book you are introduced first to Dorothy Vaughan. She is an excellent applicant. Can you write a description of her and why she's perfect for the job?
4. Mary Jackson is not allowed to study at Hampton High School due to segregation. Write a persuasive letter to the judge in role as Mary Jackson.
5. Katherine Johnson had three daughters who she looked after on her own after her husband died in 1956. At NASA, she faced discrimination due to being a woman. What advice would Katherine have given to her three daughters?
6. Why are the stories of these women important? Write an opinion piece for a newspaper explaining the impact these women had on history.

Further Research

Hidden Figures, Young Readers' Edition by Margot Lee Shetterly

Hidden Figures, The Movie, directed by Theodore Melfi

Curiosity by Markus Motum

The Race to Space by Clive Gifford

When We Walked on the Moon by David Long

Cosmic by Frank Cottrell Boyce

Women in Science by Rachel Ignotofsky

Want to find out more? Why not download the full Planning Sequence on our website?



Home Learning Branches

Hidden Figures by Margot Lee Shetterly and Laura Freeman

- 1 It might be helpful, before you start your Wiki page, to map out what you know already using a grid like this. Try drawing our your own.

What I Know	What I think I Know	Questions
NASA launched the first man on the moon	NASA could have been called NACA before because they used to work with planes rather than rockets	Who are some of the people in the photos?

Once you have completed your research and collected facts, try putting them under the following heading: NACA During the War; Segregation in NACA; Famous Astronauts and Pilots; Technology; Achievements

Here is a sentence to get you started: *Interestingly, NASA was founded in 1958 during the Cold War. Before this, it was known as NACA since...*

- 2 Before you create your advert, you'll need to decide which role you're advertising for. Can you create different jobs using these word endings? **-er, -ologist, -cian, -ist?** *Engine, build, design, mathematics, compute, science, bio, meteor, physics, type, technical, electric, statistics, astronomy*

We are going to continue our vital work for NASA/NACA by writing a job advert - we need to recruit new members!

Choose which role you're recruiting for and decide what information you need to include. on your advert.



Do you think any of these jobs would be useful for working in NASA or NACA or both? Why?

- 3 Look at the following words: Principle, vision, integrity, courage, strength, determination, ingenuity, brilliance, endurance, generosity, cowardliness, , dishonesty, weakness, narrowness.

Try using some of these words to write a character description of Dorothy Vaughan. One way we often describe impressive individuals is to use a noun (of) noun phrase e.g. a woman of integrity.



When you grow up, would you rather be a man/woman of courage or cowardliness? Why?

Dorothy Vaughan was a woman of strength and integrity. She had a vision to exceed expectations despite the segregation and sexism that was everywhere. Dorothy, who worked long hours, was a woman of exceeding strength with a brilliance of mind.

- 4 Look at these prefixes: **In-** or **Un-**

Which prefix can you attach to the following root words and how does it change the meaning? *Justice, principled, fair, reliable, realistic, questionable, able, enthusiastic, comprehensible, controllable, appealing, credible, correct, dependent, equal.*

Can you use these words in your letter?

I suggest you... I recommend you... It is essential you... It is crucial you... I strongly urge you...

We need to put on our most formal voices! We might need to use sentence openers such as the ones above. For example:

I strongly urge you to change the law and support my application. This is an injustice!

- 5 Try sorting these words into ones you know and don't know: *versatile, industrious, resilient, innovative, persistent, patient.* Can you find out what the unknown words mean?

Think about the qualities people in different jobs need:

If you are an engineer, then you can show how innovative you are by...

What advice would Katherine would have given to her three daughters Katherine, Constance and Joylette?

It will be important you talk to each other and comfort each other. If you feel that people have low expectations of you - either for the colour of your skin or because you are a girl - then show how innovative and versatile you can be. Be persistent like your mother!

- 6 Why do you think the book we are reading is called *Hidden Figures*?

Even though these women's achievements are being recognised now, it has been a long struggle for their story to be told, why do you think that has been the case?

Let's write a newspaper opinion piece that reviews the importance of the book and film. Use these questions to help.

Why should we remember the achievements of these women?



Why is it an important question?
What is the story *Hidden Figures* about?
What is your opinion on this issue?
Any interesting quotes?
How will this affect the future?
Are things changing?