Significant historical person: Katherine Johnson

Reading Comprehension

Who was she?

Katherine Johnson was a mathematician, who worked for NASA and was involved in America's advancement in space exploration. She is remembered as a courageous and determined woman as at the time space exploration was a male-dominated industry. Also, Katherine was an African-Caribbean woman. At the time in the United States of America, black people were treated as inferior to white people, so Katherine suffered a lot of racism at work. With resilience and strength, Katherine stood tall and showed that black women were more than capable to work alongside men and complete the same type of tasks as them.

What was her early life like?

In 1918, Katherine Johnson was born in West Virginia. Early on in school, she excelled at mathematics and was moved up several grades as a result. Her mathematical ability earned her the nickname 'Computer', such was the speed and accuracy of her mental calculations. She studied mathematics and French at West Virginia State College in 1937 and gained the highest honours possible. Once she graduated, she started teaching at a school for black students in Virginia. At the time, schools were segregated for white and black students.

Katherine was chosen to study at West Virginia University in 1939 – this was a ground-breaking achievement for a black woman because at that time in history it was extremely rare for women, and black women especially, to go to university.

How did she get a career in space travel?

After having a family and returning to the workplace, Katherine got a job at the all-black West Area Computing section at the National Advisory Committee for Aeronautics' (NACA's)

Langley laboratory in 1953. NACA later became NASA (National Aeronautics and Space Administration). Quickly, Katherine's strong mathematical ability was noted and she soon started to research and analyse data from early space travel test flights. In 1957, Katherine provided some of mathematical calculations and trajectory analysis for America's first human spaceflight. Russia had already launched Sputnik into space and America was quick on their heels, hoping to beat them to be the first country to get man on the moon. In 1960, she wrote a spacecraft report alongside engineer Ted Skopinski and it was the first time a woman in the Flight Research Division had received credit as an author of a research report.

It was essential her calculations were accurate as people were trusting their lives on her work. Very quickly, Katherine gained a good reputation among the astronauts, who trusted her mathematical ability and the part it played in working out flight trajectory to ensure their safety. She was very proud to work on Project Apollo's Lunar Module with the lunar-orbiting Command and Service Module. In her time at NASA, she wrote 26 research reports for shuttle launches with other colleagues (mostly male). She is regarded as one of the key influential people in the 'Space Race' era of space exploration. Katherine retired from NASA after 33 years in 1986.

How have her life contributions been recognised and celebrated?

Katherine was awarded the Presidential Medal of Freedom in 2015. She was given the medal by Barack Obama for her wonderful contribution to space travel advancements. These medals are rarely given out and are only given to people who have helped advance America. Therefore, it was an enormous honour to her and her family for her career to be recognised at the highest level.

NASA wanted to create a lasting legacy to Katherine, so they named a building after her in 2016. During the opening, Katherine was in attendance and received the Silver Snoopy Award. This award is given out to people who have made an outstanding contribution to a space mission.

QUESTIONS

1. What do you think is meant by advancement? Tick the correct definition.

a development or improvement	☐
a chance to add something	☐
a development or improvement	☐

2. Tick which word has the closest meaning to inferior.

fear	☐
lesser	☐
famous	☐

3. What does it mean when it says 'Katherine stood tall'?

_____

_____

4. Circle the year Katherine was born.

1939 1937 1917 1918

5. Why did Katherine get nicknamed 'Computer'?

_____

_____

6. What is significant about the fact Katherine studied at West Virginia University?

_____

_____

_____

7. What do you think is meant by 'all-black' in the the all-black West Area Computing section name?

8. Why do you think there was a department like this?

9. What significant first happened for Katherine during her time at NASA?

10. True or false: The astronauts trusted Katherine.

11. Name three recognitions Katherine received to celebrate her achievements.

ANSWERS

1. What do you think it means by advancement? Tick the correct definition.

a development or improvement	☑
a chance to add something	☐
a development or improvement	☐

2. Tick which word has the closest meaning to inferior.

fear	☐
lesser	☑
famous	☐

3. What does it mean when it says 'Katherine stood tall'?

She had to act in a confident manner and be brave to stand up for herself.

4. Circle the year Katherine was born.

1939 1937 1917 **1918**

5. Why did Katherine get nicknamed 'Computer'?

Due to her strong mathematical ability

6. What is significant about the fact Katherine studied at West Virginia University?

It is significant due to the fact it was a ground-breaking achievement for a black woman to go to university as because at that time in history it was extremely rare for women, and black women especially, to go.

7. What do you think it means by 'all-black' in the all-black West Area Computing section name?

A department where only black people worked

8. Why do you think there was a department like this?

At the time black people were tried as inferior, so they had separate workplaces to white people.

9. What significant first happened for Katherine during her time at NASA?

She wrote a spacecraft report alongside engineer Ted Skopinski and it was the first time a woman in the Flight Research Division had received credit as an author of a research report.

10. True or false: The astronauts trusted Katherine.

true

11. Name three recognitions Katherine received to celebrate her achievements.

1. *Awarded the Presidential Medal of Freedom*
2. *NASA named a building after her*
3. *Received the Silver Snoopy Award*