

Katherine Johnson was an African American physicist and mathematician who worked to create the first calculations to send humans into space. She is famous for her long career at NASA where, in 1959, she calculated the flight trajectory for the first American, Alan Shepard, to go into space.

She was born on August 26th, 1918, in West Virginia. She was the youngest of four children and was always curious. From a young age, her parents encouraged her to focus on her education. When she finished elementary school, she faced challenges finding a place to study. The schools nearby were segregated and only accepted white students. She was a brilliant student and skipped many grades, and was able to attend the high school on the campus of the historically black West Virginia State College. She started college there when she was 15 and graduated in 1937 with a degree in Math Education and French. Later she taught math, French, and music in the public schools of black Americans.

Katherine was selected as one of three African American students to attend graduate school at West Virginia University in 1939 when the university began to desegregate their student body. She decided to leave school before graduating to get married and start a family.

In 1952, she applied for an open position with the West Area Computing section of the National Advisory Committee for Aeronautics (NACA) at the Langley Research Center. NACA would later become NASA in 1958. She worked as a human computer, making calculations and analyzing data for the first space flights. In 1962, she verified calculations by hand to ensure that John Glenn's orbit around the Earth was correct. Among her many other accomplishments, in 1969, Katherine also calculated the flight trajectory for Apollo 11's flight to the Moon.

When Katherine Johnson began her work at NASA, women were not given credit for their work on any written report. In 1961, she became the first woman in her division to receive credit as the author of a research report. She was hired in an all-male division and faced challenges as an African American woman in both a male-dominated and segregated work environment. Katherine worked for NASA for 33 years and retired in 1986. Much of the work Katherine participated in during her time at NASA was not recognized until much later. In 2015, when she was 97 years old, President Barack Obama awarded her the Presidential Medal of Freedom, the highest civilian honor. Katherine Johnson died at the age of 101 on February 24th, 2020.



**Directions:** Answer the questions about the text. 1. Why is Katherine Johnson famous? 2. What were some of the challenges Katherine faced? 3. Where did Katherine study? 4. What was Katherine's job at NASA? 5. What else would you like to know about Katherine Johnson? Share your questions with a friend.





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**Directions:** Answer the questions about the text. 1. Why is Katherine Johnson famous? She was a mathematician and worked at NASA. She calculated the flight trajectory for the first American, Alan Shepard, to go into space. 2. What were some of the challenges Katherine faced? The schools near her home were segregated and it was a challenge to find a school to attend. She was also not given credit for her work because she was a woman. 3. Where did Katherine study? West Virginia State College and West Virginia University. 4. What was Katherine's job at NASA? She was a human computer. She made calculations for astronauts to go into space. 5. What else would you like to know about Katherine Johnson? Share your questions with a friend. Answers will vary

