Pioneering black NASA mathematician Katherine Johnson dies

Katherine Johnson was a trailblazing NASA worker. The woman portrayed in the 2016 hit film "Hidden Figures," about black female NASA employees, has died. Johnson was 101 years old. Johnson was a mathematician for NASA. She used math to help map the paths for early space flights. NASA Administrator Jim Bridenstine said on Twitter that she died on February 24. No cause was given. Bridenstine tweeted that the NASA family will never forget Katherine Johnson. He praised her bravery and said NASA couldn't have launched its successful missions without her. "Her story and her grace continue to inspire the world," Bridenstine said.

A "Human Computer"

Johnson was one of the "computers" who solved equations by hand during NASA's early years. She first worked for the group that gave birth to NASA. It was called the National Advisory Committee for Aeronautics (NACA). Johnson and other black women first worked in a racially segregated computing unit in Hampton, Virginia. It wasn't officially dissolved until NACA became NASA in 1958. Signs showed which bathrooms the women were allowed to use. Johnson focused on airplanes and other aerospace studies first. Her work at NASA's Langley Research Center shifted to Project Mercury. This was the country's first human space program.

Figured Out Flight Path

In 1961, Johnson figured out the flight path for astronaut Alan Shepard. His Freedom 7 Mission was the first to carry an American into space. The next year, she manually confirmed the calculations of a new IBM computer. The computer mapped astronaut John Glenn's space missions. "Get the girl to check the numbers," said Glenn before the launch. He didn't trust the computer. Margot Lee Shetterly wrote the book "Hidden Figures." Shetterly wrote that Johnson quickly organized herself at her desk. She had piles of work that grew into "phone-book-thick stacks of data sheets." "The wonderful gift that Katherine Johnson gave us is that her story shined a light on the stories of so many other people," Shetterly said. "She gave us a new way to look at black history, women's history and American history."

Most Proud Of Work On Apollo Missions

Johnson was most proud of her calculations for the Apollo missions. They helped the Apollo spacecraft land on the moon. She also worked on the Space Shuttle program before ending her work in the space program in 1986. Johnson and her co-workers were heroes of America's Space Race. This was the race America had with other countries to get a person in space. Yet few people knew them. In 2015, though, President Barack Obama awarded the 97-year-old Johnson the Presidential Medal of Freedom. It is the highest recognition a citizen can get in the United States. Johnson was born Katherine Coleman on August 26, 1918. She grew up in White Sulphur Springs, West Virginia. The small town had no schools for black children beyond the eighth grade. Her father drove Johnson and her siblings to Institute, West Virginia, for high school and college. They attended the historically black West Virginia State College. Johnson taught at black public schools. She would later become one of three black students to integrate West Virginia graduate schools. This was when they let students of all races go to one school. "My dad taught us 'you are as good as anybody in this town, but you're no better,'" Johnson told NASA. "I'm as good as anybody, but no better."

Reflection Questions:

Where did Katherine Johnson grow up?
What was Katherine Johnson’s job?

What does the term “human computer” refer to?

Which mission was the first to carry an American in space?

What are the names of two of the missions Katherine Johnson worked on?

What honor did President Obama award to Johnson?

What is one thing you find surprising about the life of Katherine Johnson?

If you could ask Johnson one question, what question would you ask her and why?

Do you think it is fair that only astronauts get the recognition for space exploration and not the other people who work on the missions? Why or why not?