













REFLECT:

How are you showing attention to detail through your work at SSU in preparation for your future?

atherine Johnson is most recognized for her work on the trajectory for the first human spaceflight by Alan Shepard, which involved calculating the launch window, the rocket's speed and orbit, and the exact location of the spacecraft at any given time during the flight. Johnson's soft skill of attention to detail through her mathematical expertise was crucial in determining the precise trajectory required, ensuring the safety and success of the mission.

Johnson worked on the path for the Apollo 11 mission that landed the first humans on the moon. She developed backup navigation charts and helped verify the computer calculations that guided the spacecraft to the moon's surface.

In addition to her work in aerospace engineering, Johnson was also a trailblazer for women and people of color in Science, Technology, Engineering and Mathmatical (STEM) fields. She faced discrimination and segregation throughout her career but persevered and became a respected and celebrated figure in her fields. In 2015, she was awarded the Presidential Medal of Freedom by President Barack Obama, and in 2016, the movie *Hidden Figures* brought her story and the contributions of other African

American women mathematicians to the forefront.

Born Creola Katherine Coleman, Katherine Johnson was the youngest of four children. She counted everything from items in the cupboard to the number of steps to a destination. After a move by the family in order to acquire greater education opportunities, she was able to excel by entering high school at 10, graduating at 14, entering West Virginia state the following year and completing all required math courses within two years. Classes beyond that point were conceived by her mentor, William Waldron Schieffelin Claytor, only the third African American person to earn a doctorate in mathematics from a university in the United States. He told her then that she would make an excellent researcher and prepared her for that field. Katherine graduated summa cum laude in 1937 and found no research opportunities available for 10 years before becoming one of the "computers" who worked for NASA. Her contributions to the field of aerospace engineering are remarkable due to her exceptional attention to detail.

Scan the QR code to learn more.