

## Space conquest: The Need for Women in Stem – TEXT B -

Adapted from Margot Lee Shetterly's book *Hidden Figures: The American Dream and the Untold Story of the Black Women Mathematicians Who Helped Win the Space Race*, the film focuses on three real-life African-American female pioneers: Katherine Johnson, Dorothy Vaughan, and Mary Jackson, who were part of NASA's team of human "computers." This was a group made up of mostly women who calculated by hand the complex equations that allowed space heroes like Neil Armstrong, Alan Shepard, and Glenn to travel safely to space. Through sheer tenacity, force of will, and intellect, they ensured their stamp on American history—even if their story has remained obscured from public view until now.

Katherine Johnson, the movie's protagonist, was something of a child prodigy. Hailing from the small West Virginian town of White Sulphur Springs, she graduated from high school at 14 and the historically black West Virginia State University at 18. In 1938, as a graduate student, she became one of three students—and the only woman—to desegregate West Virginia's state college. In 1953, Johnson was hired by NACA and, five years later, NACA became NASA. (...)

While Johnson is the main character, *Hidden Figures* also follows the trajectories of Dorothy Vaughan and Mary Jackson as they work.

Vaughan was one of NACA's early computer hires during World War II. She became a leader and advocate for the "West Computers." In 1948, she became NACA's first black supervisor and, later, an expert programmer. Despite these successes and her capability, she was constantly passed over for promotions herself. Vaughan struggled with the same things all female computers did while at NASA. "The conflict of working outside of the home to provide the best life for your children and, yet, not physically being there. But she knew she was changing the world."

While Mary Jackson is also considered a "hidden figure," she certainly **stood out** during her time at NASA. After graduating with two degrees in math and physical science, she was hired to work at Langley in 1951. After several years as a computer, Jackson took an **assignment** in assisting senior aeronautical research engineer Kazimierz Czarnecki and he encouraged her to become an engineer herself. To do that, however, she needed to take after-work graduate courses held at segregated Hampton High School. Jackson **petitioned** the City of Hampton to be able to learn next to her white peers. She won, completed the courses, and was promoted to engineer in 1958, making her NASA's first African-American female engineer—and, perhaps, the only one for much of her career. "She knew she was changing the world."

Johnson would go on to work on the Apollo program, too, including performing trajectory calculations that assisted the 1969 moon landing. She would retire from NASA in 1986. In 2015, President Obama gave Katherine Johnson the Presidential Medal of Freedom. Last May, a NASA computational research facility in her hometown of Hampton, Virginia was named in Johnson's honor. And yet, despite the **accolades** and getting the Hollywood treatment, she told the audience in May that she was just doing her job and "it was just another day's work." Sometimes changing the world is just that.

### Another Day's Work

Matt Blitz, "The True Story of 'Hidden Figures' and the Women Who Crunched the Numbers for NASA", *popularmechanics.com*, Feb 3, 2017

**stood out** : *se faire remarquer* - **assignment** : *mission* - **petitioned** : *adresser une requete*  
**accolades**: *distinctions*