



2017 BE INSPIRED Essay Contest | Age Group: Grades 8-9

2nd Place Winner: Claire Shao

Age: 8th Grade

School: Marshall Middle School (North Allegheny)

Change is always occurring, but the greatest developments come from innovative minds like NASA mathematician Katherine Johnson's that lead with strength and fight for equality. The movie "Hidden Figures" perfectly exemplifies how women like Johnson are paramount in rewriting societies' rulebooks.

Similar to how Maya Angelou advocated for civil rights through her literary works and philanthropy, Katherine Johnson promoted the role of women in STEM through her math and science contributions to NASA. Aptly nicknamed the "human computer", Johnson checked calculations and determined the orbit of the spacecraft that helped America win the race to the moon. Despite her crucial job, Johnson battled sexism and racism. She realized that the women around her were not given equal opportunities as the men, but her profound interest and curiosity drove her to pave the way for women, allowing them to succeed.

In the movie, Johnson displayed many character traits that I would like to have replicated in my own life. Like Maya Angelou, Johnson had never-ending passion for mathematics that drove her to be the best in her field. As Johnson once said, "Math. It's just there... You're either right or you're wrong. That's what I like about it." Johnson was also curious both in and out of the classroom. She realized that the women around her just did what they were told and never questioned anything. Johnson, on the other hand, was different from the rest of her coworkers. She yearned to gain an explanation and desperately wanted to know the reasoning behind her tasks. Her profound interest and curiosity drove her to contribute great things to NASA and the STEM field in general.

Outside of her field, Katherine Johnson still faced many adversities. In 1939, Johnson was chosen to be one of the first African American students to be intermixed at West Virginia University. Although the faculty and students at this school made a huge effort to be accepting to African American students, not all schools were as welcoming as West Virginia University. Later, when Johnson had to transfer to another school, not everybody accepted her differences. At a time when segregation was still rampant across America, Johnson faced backlash and non-acceptance at school. Being African American and "different", Johnson experienced many challenges throughout

her education that she had to rise up to overcome. The STEM field is still largely dominated by males, but Johnson was able to open a new door of opportunities for women through her determination and fearlessness.

Although Angelou is not famous for the same field of work that Johnson is famous for, their experiences have both taught me a lot. Today, Angelou is well-recognized for her literary works, and although she has passed away, she has gained a huge following for it. However, in the past, she also had to overcome struggles of her own. Since she was raped early on in life, she went through a period of time where she didn't speak. Writing gave her a way to develop her voice throughout the years and allowed her to grow stronger as a person. In addition, since Angelou is African American, she faced a lot of prejudice during her life. Before people even got to know Angelou, they would already have pre-existing thoughts embedded in their minds, and oftentimes those thoughts were negative ones. It required for Angelou to persevere throughout her whole life for the hard work to pay off in the end.

When I heard about Johnson and her story, I could immediately relate. Johnson had many instances in her life where she was surrounded by males. Although Johnson has done a lot to help females in the STEM field, I can also experience what she once had to go through. As an avid lover of both science and math, I am constantly participating in activities in and out of school. From the experiences that I have gathered throughout my middle school years, I have also come to a shocking realization—the science and math competitions are always dominated by males. For my science bowl team at my school, 2017 was the first time in many years when the first team was mainly composed of girls. Furthermore, I also went to the state Mathcounts competition. Although I did well, the top ten places were all held by males. The startling gap between males and females in the STEM fields, although lessening, is still very disproportionate, and I believe it is up to my generation to carry out Johnson's dream and make a difference.

Both Angelou and Johnson's past actions have shaped me and inspired me to become the person I am today. They have taught me to be fearless and have proven that it is okay to defy the public's social stereotypes. During Johnson's life, she was brave and chose to take the risk to pursue a field of work with a gender imbalance. Although she was aware of the limited opportunities, she stuck with it and eventually went on to create her own opportunities. Her example has also played a big role in my past and will continue to inspire me in the future.

Ever since I was very young, I have been interested in math and science, but if it weren't for powerful women like Angelou and Johnson, I would not have the encouragement to stay interested. Angelou and Johnson have already made a profound impact on their worlds, and I am determined to do the same in my own. They have paved the way for other young girls, like me, to continue making a difference and to further the cause that they advocated for. Their past actions have provided

me with the confidence I need to pursue my interests in the future and to fill their shoes with my actions.