

# Katherine Johnson

*“Take all the courses in your curriculum. Do the research. Ask questions. Find someone doing what you are interested in!  
Be curious!”*

Katherine Johnson is an American mathematician. She made important contributions to the space program during her career at NASA and made great strides for women in STEM fields. Her work helped send astronauts into space. Learn more about Katherine Johnson in this monthly patch!

Complete 3-Daisy, 4-Brownie, 5-Junior, 6-Cadette,  
and 7-Senior/Ambassador steps to earn your patch.

All monthly patches are custom designed patches. Once we get the final number of patches after the 15<sup>th</sup> of each month, we place an order. Patches take about a month to create and then we mail them to you. You will get a confirmation email once the patches are headed your way.

*Order patch on-line by May 15, 2019 at*

**GETYOURGIRLPOWER.ORG**

## Discover

1. Katherine Johnson had an early love of math. When she started school she advanced to second grade immediately and was in high school by the time she was 10 years old. This was truly an amazing accomplishment in a time where people of color did not typically attend school past 8<sup>th</sup> grade. She then finished high school by age 14 and college by age 18. Discuss with your troop what you think it would

be like to go through school so fast. How hard do you think Katherine had to work to do this?

2. Through Katherine's work with the space program she blazed a trail for women in STEM. Learn more about what is included in the STEM field and what types of jobs were available to women in the 1950's. How was this different for women of color?
3. In 1953 Katherine began working at NACA (National Advisory Committee for Aeronautics), NASA's predecessor program. She helped with many noteworthy space launches. Learn more about how important space travel was to the USA in the 1950's, 60's and 70's. Discuss with your troop the major advances that happened because of space travel and the space race between the US and the Soviet Union.
4. Katherine is quoted as saying "You are as good as anyone in this town, but you are no better than any of them." Discuss what this means. How do you think Katherine embodied this throughout her life?

## Connect

5. Katherine Johnson loved to count. From an early age she counted everything, from how many steps it took her to get to school to how many dishes she washed. Count things in your life, like how many stuffed animals you have or how many steps it takes to get to your mail box. Play a counting game with your troop. How many girls in your troop are wearing red, have blonde hair etc... Talk about how math plays a part in everyday life.
6. Katherine helped make so many advances in space travel possible. Check out some space activities you can do with your troop. Make moon dust, make a space shuttle, or make a constellation flashlight...whatever you do make sure you are having fun and learning

more about space <https://homemadeforelle.com/20-space-activities-for-kids/>

7. Books and movies have been written about Katherine Johnson and the other African American women that helped with space travel at NASA. A book later made into a movie called Hidden Figures, portrays what Katherine Johnson's life was like. If you have time as a troop watch the movie. If you do not have time, read what the movie is about and then discuss it with your troop. Why do you think the book/movie is named Hidden Figures? Who were some of the other influential women that made history at NASA? What are some of the things they had to overcome to be successful?
8. Coincidentally Katherine Johnson was born on Women's Equality Day; August 26<sup>th</sup>. Although it is April, have a Women's Equality Day celebration in honor of Katherine Johnson or plan what you can do in August for your celebration. Discuss how Women's Equality Day came about and what women have had to overcome to gain equality and how we continue to fight for equal rights today.
9. Take a look at the stars! Visit a local planetarium or plan an outside event to check out the constellations and talk about zodiac signs. See if you can find your zodiac constellation or spot a planet!

## Take Action

10. Even after Katherine retired from NASA she has worked hard to promote STEM careers to young people. She has gone to many conferences and speaks to students about her own STEM career in hopes to inspire them. Is there a topic you feel especially passionate about? Inspire someone younger than you to take up a hobby that you

are passionate about or to study a certain subject that you think is very important. With your troop, discuss an activity/hobby/subject that you could promote to a group of girls younger than you.

11. Katherine never gave up. The first time she applied to work at NASA she was not accepted; but she kept trying and got the job the second time she applied. Think of a time you worked hard and never gave up. What would you tell someone that is going to give up on their dreams? Come up with a plan to map out your dreams. Make a vision board or a list with all the steps you need to take to reach your goals. Talk as a troop about your dreams and how you plan to achieve them one day.
  
12. For many years before Katherine was awarded the Presidential Medal of Freedom and before a book/movie was made about her, most of the work she and other women were doing at NASA was thankless and went unrecognized. Think of a local job that might be considered “thankless” how can your troop do something special for this profession to thank them for all their hard work.