

# The Star, Mae Jemison

"It's part of the imagination. All of science, all of space exploration - everything we do in the world is about imagination and using your creativity to expand beyond your normal boundaries."

- Mae Jemison

## Introduction

Have you ever used your imagination to make something happen? Like, fly down the stairs to the dinner table, or wave a magic wand to clean your room? Well, you're not alone in using your imagination. Doctor Mae Jemison

imagined herself in space as a child, and she is now famous for making that dream come true.



As an astronaut for NASA, she became the first African American female to fly into space. While on the space shuttle Endeavour in 1992, she was a mission specialist who studied how living things react to being in space. She is also a doctor, researcher, teacher, and a businesswoman.

## Early Life and Education

Mae was born in Decatur, Alabama on October 17, 1956, but grew up in Chicago, Illinois. Her mother was an elementary school teacher, and her father was a carpenter. She has two older siblings, a sister and a brother.

When Mae was younger, she liked to dance and she liked science. In her mind, her love for dance supported her love of science. With the encouragement of her uncle, it was in Chicago that her love for science grew. She learned more about science, specifically astronomy, by helping her brother and sister with their science projects and reading many books at the public library. She wanted to go to space, and never had any doubt that she would get there.

Mae won a scholarship to Stanford University in California. She was only 16 years old, but she thrived both in her studies in science and in the arts. She double majored in chemical engineering and Afro-

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American studies, where she learned to speak Swahili. While on campus, she planned and performed in dance productions. Torn between her love for dancing and science, she eventually chose science as a career path. After graduating from Stanford in 1977, she continued her education at Cornell University Medical College in New York. In 1981, Mae became a doctor.

During summer breaks, Mae went to Cuba and Kenya to learn about medical care in other countries. In 1983, at the age of 27, she served in the Peace Corps for two and a half years. She wanted to use her medical degree to help others. During her time as a medical officer in the Peace Corps, she was able to use her knowledge of Swahili while working in West Africa. Not only does Mae speak English and Swahili, but she speaks Russian and Japanese, as well.

## Launching Her Way into the History Books

Over the years, Mae continued to think about her dream to go to space, so she applied to be an astronaut for NASA. Even though Mae's first application was denied because NASA stopped accepting new astronauts at the time, she didn't give up! She applied a second time, and in 1987, she was one of fifteen people chosen to become an astronaut out of 2,000 applicants.



Five years later, she worked on the STS-47 mission to study life in space, flying in the space shuttle *Endeavour*. NASA had a joint mission with Japan for this flight, so the first Japanese national to fly in space, Mamoru Mahri, was on *Endeavour* as the payload specialist. Mae studied in space for seven days, twenty-two hours, thirty minutes, and thirty-three seconds. Her experience of being in space was so impactful that she wanted to encourage more space travel.

## Continuing Her Scientific Work

After leaving NASA, Mae started her own businesses. One business was a camp called The Earth We Share. It started through the Dorothy Jemison Foundation for Excellence, named after Mae's mother in honor of her work as an educator. The camp helps kids learn more about science. Kids go to the camp from around the world. At the camp, young scientists get to use their imagination and share their ideas about future missions.

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Dr. Jemison currently lives in Houston, Texas. There she is leading the 100 Year Starship (100YSS) initiative through the United States Defense Advanced Research Projects Agency (DARPA). The goal of this DARPA program is to make sure human space travel to another solar system is possible within the next 100 years. Mae's team won a grant in 2012 to continue research on how to travel to other stars.

## Education Advocate for Arts and Science

Mae also has an artistic side. She is trained as a dancer, choreographer, and actor. Using her training, she has appeared on television over the years. When she was younger, she looked up to Uhura, a female officer in the television show *Star Trek*. Her real life blurred with her childhood imagination as she guest starred in the television show *Star Trek: The Next Generation*. Mae jumped at the opportunity to play Lt. Palmer in one episode. This was yet another example of a childhood dream coming true, and another experience that cemented the importance of the arts in expanding her imagination.

In her TED talk in 2002, Mae said, "We need to revitalize the arts and sciences right now in 2002." She advocates for teaching the arts and science together, and not valuing one over the other. She even goes as far as to say that understanding the arts can help young learners understand science better. Her advocacy for science and the arts in education is important in this era where schools are cutting back on music and art classes. She ended her TED talk by saying, "I like to think of ideas as potential energy. They're really wonderful, but nothing will happen until we risk putting them into action."

There is no doubt that Mae used her imagination and worked hard to go beyond her normal boundaries. She is still trying to go beyond her earthly boundaries. The world, and maybe even a new star, is her oyster.

**Directions: Answer the questions using evidence from the text.**

1. What are some things Mae Jemison liked to do?

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2. Why is Mae Jemison famous?

3. What is a challenge Mae Jemison had in her life?

4. What does Mae Jemison mean when she says, "I like to think of ideas as potential energy. They're really wonderful, but nothing will happen until we risk putting them into action." Use information from the text to support your answer.

5. Reread the last section of the biography. Do you think teachers should teach arts and science together? Why or why not? Do outside research to support your answer.

6. In all of the journeys in her life, whether they were on earth or outer space, Mae Jemison used her scientific knowledge to help others. Write about a career you would like to try that can help people, too.

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## Possible Answers

Dr. Jemison currently lives in Houston, Texas. There she is leading the 100 Year Starship (100YSS) initiative through the United States Defense Advanced Research Projects Agency (DARPA). The goal of this DARPA program is to make sure human space travel to another solar system is possible within the next 100 years. Mae's team won a grant in 2012 to continue research on how to travel to other stars.

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**Directions: Answer the questions using evidence from the text.**

1. What are some things Mae Jemison liked to do?

Mae liked science and she liked to dance. She also enjoyed the television show *Star Trek*.

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## Possible Answers

2. Why is Mae Jemison famous?

She was the first African American woman to enter space. She has a camp where kids come from around the world. She also guest starred on the show Star Trek: The Next Generation.

3. What is a challenge Mae Jemison had in her life?

It took Mae two tries to get into NASA. She went to medical school and became a doctor. She worked in Africa as a doctor. She is trying to get to another star and was awarded a grant to fund her research.

4. What does Mae Jemison mean when she says, "I like to think of ideas as potential energy. They're really wonderful, but nothing will happen until we risk putting them into action." Use information from the text to support your answer.

Student answers will vary, but should include evidence from the text.

5. Reread the last section of the biography. Do you think teachers should teach arts and science together? Why or why not? Do outside research to support your answer.

Student answers will vary, but should include evidence from the text and at least one outside source.

6. In all of the journeys in her life, whether they were on earth or outer space, Mae Jemison used her scientific knowledge to help others. Write about a career you would like to try that can help people, too.

Student answers will vary.