



Mae Jemison: Trailblazing Astronaut, Doctor, and Teacher

By: Linda Barghoorn

The first African American woman to travel in space, Mae Jemison has broken barriers in science and medicine to become one of the most admired

9-12

940L

Age Range Lexile® Measure



Contents

Introduction Space Dreams 4

Chapter 1 Reaching for the Stars 6

Chapter 2 Chasing a Dream 12

Chapter 3 The Road to NASA 18

Chapter 4 Advancing Science and Space
Exploration 24

Writing Prompts 30

Learning More.....31

Glossary 32

Index 32

Space Dreams

Every person's life is a collection of stories about their experiences. Stories about remarkable people, even if they are not well known, can inspire us as we think about our own lives. What makes someone remarkable? Maybe it is their bravery, imagination, or intelligence. Everyone has a different idea of what makes someone remarkable. As a child, Mae Jemison (JEH-mih-sun) loved to stare at the stars and dreamed of traveling to Mars. She grew up to follow those dreams right into space!

What is a Biography?

A biography is the story of a person's life. We read biographies to learn about a person's experiences and thoughts. Biographies can be based on many sources of information. Primary sources include a person's own words or pictures. Secondary sources include stories from friends, family, media, and research.



As you read Mae's story, think about the qualities she has that helped her achieve her dream.

Bold and Pioneering

Mae Jemison is passionate about science and learning. In kindergarten she knew she wanted to be a scientist. As a young African American, she faced many **racial barriers** to achieving her dreams. But she refused to be limited by other people's ideas. She is determined, daring, and confident.

? THINK ABOUT IT

Do you know someone who is remarkable? What qualities do they have that you find remarkable?

Mae's work is bold and pioneering. It inspires others to reach for their own dreams.



Reaching for the Stars

Mae Jemison was born in Alabama in 1956. She is the youngest of three children. Her father was a carpenter and her mother was a teacher. Her family moved to Chicago when Mae was three to find better opportunities for education. Mae's parents encouraged their children's individual talents and dreams. They taught them to believe in themselves and their rights as African Americans.

Equal Rights

Segregation was still practiced when Mae was a child. This meant that African Americans were sometimes kept separate from other Americans. They could not always use the same restaurants, bathrooms, buses, and schools. They did not have the same career opportunities. During the Civil Rights Movement in the United States, there were many protests to change this. As Mae grew older she understood that she deserved the same right to pursue her dreams as every American.



Civil Rights Movement

In the 1950's and 1960's, African Americans began to protest segregation. This became known as the Civil Rights Movement. Its goal was to provide equal rights to everyone regardless of their race, gender, or religion. In 1964, the president of the United States signed a law to ban segregation.

Civil rights protestors march from Selma to Montgomery, Alabama in 1965.

Fascinated by Space

Mae was a curious, imaginative child who was eager to learn. She loved to read and enjoyed books about the universe. Her favorite books featured female scientists and **heroines**. She also loved science and space. Mae eagerly watched the Apollo space missions on television. She imagined what it would be like to travel into space herself. This became her dream.



“

Growing up I always assumed I would go into space.

—Mae Jemison, *Makers*
Profile: Mae Jemison

”



8

The Apollo space missions aimed to land humans on the moon. Buzz Aldrin, an American astronaut, places a flag to celebrate the first moon landing on July 20, 1969.

A Love of Dance

Mae's curiosity and energy led her to explore many subjects. In eighth grade she convinced her mother to enroll her in dance classes. She loved dance because it gave her a chance to be creative. She trained in different dance styles such as ballet, jazz, and African dance. Dancing helped her improve her coordination and physical strength. It also taught her the importance of practice and hard work to achieve her goals. And, dance gave her the confidence to perform in front of others. Mae has continued to dance her whole life.

? **THINK ABOUT IT**

Why was dance important to Mae?
What did it teach her?



African dance celebrates the life and culture of a community. Above, dancers and musicians in South Africa perform for tourists.



9

Arts and Science

Mae loves both the arts and science. She insists they are equally important to help us build a better world. She believes science helps us better understand the physical world around us. We can use science to continue to improve our lives on Earth. The arts let us share our unique and personal views of the world with others. This gives us many different and exciting ways of looking at the world, as well as many ways to share it effectively with each other.



“

The arts and the sciences provide a fuller understanding of the universe around us.

—Mae Jemison. PBS: *The Secret Life of Scientists and Engineers*, The Cosmic Dance Interview, 2016.

”



10

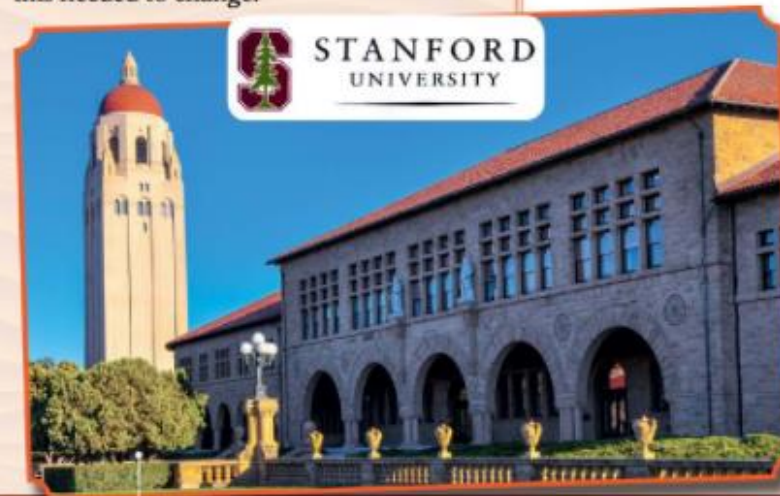
Mae attended Morgan Park High School as a teenager. She joined school principal Earl Bryant in a ceremony in 1992 to honor her achievements.

University at Sixteen

When she was just 16, Mae Jemison received a scholarship to Stanford University in California. Following her love for science and art, she studied Chemical Engineering and African American studies. She also learned to speak Russian, Japanese, and **Swahili** (*swah-HEE-lee*), and took part in dance and theater productions. While at university, she realized that women and **minorities** were not given the same opportunities to enroll and be successful in science programs. Mae felt strongly that this needed to change.

Chemical Engineering

Chemical engineering uses science to solve real world challenges by turning chemicals into useful things.



Stanford University is one of the most respected schools in the United States.



11

Chasing a Dream

When she was a young girl, Mae was often told she couldn't pursue her dreams of traveling to space. Some people believed women and minorities didn't have the necessary skills and intelligence to pursue challenging careers. In the 1960s, few women became scientists, and even fewer were African American. Women were encouraged to pursue careers in only a limited number of fields such as nursing and teaching.

? THINK ABOUT IT

What was one of the biggest challenges Mae faced in pursuing her space career?

“

Never be limited by other people's limited imaginations.

—Mae Jemison, Annual Biomedical Research Conference for Students, 2009

”

Overcoming Barriers

People suggested that Mae should pursue a career more suitable for a girl. They were surprised by her determination to be a scientist. Mae's intelligence and confidence in her abilities helped her to believe in herself. She refused to let anyone stand in the way of her dreams. As she grew older, she continued to challenge barriers for women and minorities. She has been a strong supporter for equal rights throughout her career.



Mae Jemison participates in a program where successful women talk with high school students about achieving their dreams.

Role Models

Mae Jemison was inspired by many people as she took bold steps to follow her dreams. Her parents, family, friends, and teachers all played a part in her success. They taught her about strength of character and personal values. They encouraged her to always believe in herself and to stand up for change. Her mother inspired her belief in the importance of education and lifelong learning. She challenged Mae to take risks to reach her greatest potential and follow her dreams.

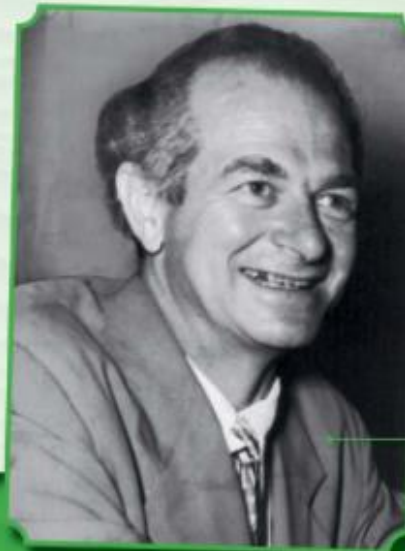
? THINK ABOUT IT

Who were Mae's role models as she grew up? How did they influence her?



A Science Hero

One of Mae's heroes was Linus Pauling (PAW-lihng), a great scientist and **humanitarian**. He won the Nobel Prize for Chemistry in 1954 and for Peace in 1962. He was the only person ever to receive two Nobel prizes on his own. Mr. Pauling was a dedicated and knowledgeable scientist. He was also committed to helping improve the lives of others, and he used science to do this.



Nobel Prize

Nobel Prizes are awarded each year to people who have done outstanding work in **Physics, Chemistry, Medicine, Literature, Economics or Peace**.



Linus Pauling inspired Mae to use science to help improve humanity.

Incredible Women

As a child, Mae didn't know about the incredible roles women had played in aviation and **aerospace**. She didn't think about what it would mean to be the first African American woman to travel to space. She just wanted to go to space. When she finally accomplished her goal, she realized she could be a role model for others. She believes it's important for women to support one another to achieve their goals.



“

It's important...for a little black girl growing up to know, yeah, you can become an astronaut because here's Mae Jemison.

—Mae Jemison, *New York Times* "Women in the News: A determined breaker of Boundaries – Mae Carol Jemison", 1992

”

An elementary student holds a picture of Mae Jemison as she celebrates African American History Month at school.

Rules for Success

Mae follows four rules for success:

1. Learn from fear. Push yourself to do things you're afraid of and try new things. This will make you stronger, more confident, and teach you new skills.
2. Help each other make a difference. Celebrate your successes to show others why they should also pursue their dreams.
3. Eliminate **prejudice**. Don't allow yourself to be limited by other people's opinions of what you can achieve.
4. Be **inclusive**. Include people of all genders, races, and religions to work closely with one another to build a better society.



Mae Jemison attends a "Celebration of American Women" at Drexel University in Philadelphia.