



# Ellen Ochoa

## HIDDEN HERO OF HISTORY

**Listen to the story:** <https://jonincharacter.com/ellen-ochoa/>

**Dr. Ellen Ochoa was an astronaut, engineer, scientist, the Deputy Director of NASA's Johnson Space Center, and the first Latina woman to go to space.**

Dr. Ellen Ochoa grew up in a town called La Mesa, California. She wasn't really into science as a kid but she did love reading, playing the flute, and math. She was also an excellent student.

When she was 11 years old, astronauts landed on the moon for the very first time. She was fascinated just like everybody else in the world, but she never thought she could be an astronaut because, at the time, they were all men. It was hard for her to imagine that a little girl like her could grow up and go to space.

Dr. Ochoa kept to her studies at school and by the time she graduated, she had the highest grades and was named Valedictorian of her class. She went on to San Diego State University to major in physics, which is the study of the physical world around us. Ellen learned about things like how sound, heat, and light travels, and the tiny atoms that make up the universe.

She continued her education at Stanford University where she achieved advanced degrees—a Master's and a doctorate—in electrical engineering. While she was working hard on her doctorate, a woman named Dr. Sally Ride became the first American woman to go to space.

Sally went to Stanford and studied physics, just like Ellen. Having these similarities convinced Ellen that she could also go to space one day. She joined the National Aeronautics and Space Administration, or NASA, as a research engineer, and in 1985, she applied to become an astronaut.

It took Ellen two years to get an interview, and she wasn't selected to be a part of the astronaut program. She didn't give up, deciding to boost her chances of being admitted by getting her pilot's license. When she reapplied a few years later, she got in!

Going into space is serious business, so Ellen and her fellow astronauts had to go through more advanced education and training.

They studied different sciences like orbital mechanics—how planets, moons and satellites move.

They learned how to operate a robotic arm on a spacecraft, fly high-performance jets, land using parachutes on both land and water, signal a helicopter, and experience what it feels like to eject from an aircraft.



After their training was complete, it was time to go to space and, over the span of her career, Dr. Ellen Ochoa went to space four times.

On her first two flights, Ellen studied the Earth's atmosphere. She also operated the space shuttle's robotic arm to release and capture the Spartan Satellite, which was a machine studying the sun's atmosphere.

On Ellen's third and fourth flights up to space, she helped form the International Space Station (ISS). The ISS is a floating science lab 250 miles above the planet. There are astronauts who live, sleep, eat, and conduct experiments on it to this day.

Dr. Ellen Ochoa spent almost 1,000 hours in space. After she retired as an astronaut, she became the deputy director of NASA's Johnson Space Center—the second woman to ever do so. Her work paved the way for future generations to explore the cosmos and make their mark on humanity's greatest frontier.

## Give it Some Thought

- What was Dr. Ellen Ochoa's dream, and how did she work to achieve it?
- What are some of your own dreams or goals? How do you think you could take steps to achieve them?
- Why do you think Dr. Ellen Ochoa is considered a role model for so many people?
- Who inspires you, and why do you look up to them?
- What's the biggest lesson you learned from Ellen Ochoa's story?
- If Ellen were talking to you, what advice do you think she'd give about following your dreams?
- Ellen worked hard to learn new things and improve her skills. What's one thing you'd like to practice or learn more about?
- How can you use what you've learned from Ellen's story to help you when things get tough?

## Glossary

**Astronaut** – A person trained to travel and work in space.

**Engineer** – Someone who designs, builds, or fixes machines, structures, or systems.

**Valedictorian** – A student with the highest academic standing in their graduating class.

**Doctorate** – The highest academic degree that a student can earn in any field of study.

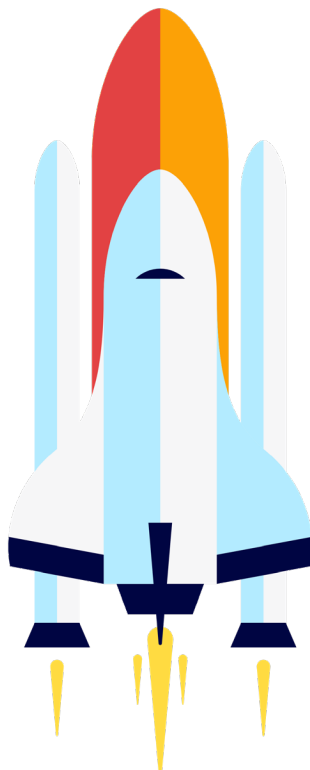
**Space Shuttle** – A spacecraft that can carry people and cargo into space and return to Earth to be used again.

**National Aeronautics and Space Administration (NASA)** – The United States government agency responsible for exploring space and developing space technology.

**Satellite** – An object that orbits around a planet, like the Moon around Earth, or a man-made object used to collect information or send signals.

**Orbit** – The path one object takes as it moves around another, like the Earth around the Sun.

**International Space Station (ISS)** – A large spacecraft that stays in orbit and serves as a home and workplace for astronauts.



## Use Your Imagination

Choose one or all these activities to help you understand and connect with Ellen Ochoa's story.

### Write or Draw “A Day as an Astronaut”

Imagine what a day in the life of an astronaut would be like. Write a story or draw pictures about your astronaut's space adventure, including challenges they might face and discoveries they'd make.

### Dream Big Vision Board

Ellen Ochoa had a dream to become an astronaut and worked hard to achieve her dream. Create your own vision board of your dreams and goals. Use magazines, drawings, or write words that will inspire you.

### Create a Thank You Letter

Write a letter thanking Ellen Ochoa for her contributions to science and space exploration, expressing what you learned and what inspires you about her story.

### Invent a New Mission Patch

Astronauts wear mission patches for their spaceflights. Design your own patch that represents Ellen's achievements or your own dreams of space exploration.

### Explore Dr. Ochoa's Legacy at the Library

Dr. Ellen Ochoa's inspiring story doesn't end here! Visit your school or public library to find a book about Ellen Ochoa. Make a list of three interesting facts or lessons you learned about Ellen after reading the book. You can even share your findings with your friends or class.

