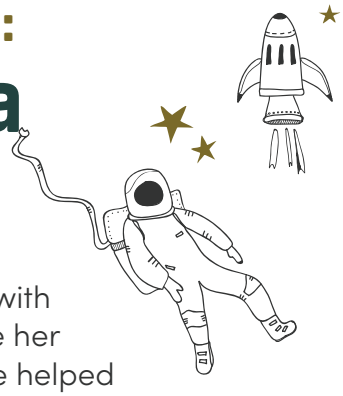
INFORMATIONAL READING COMPREHENSION:

Biography of Ellen Ochoa



Read the text below, and then answer the questions that follow.

1 In 1969, eleven-year-old Ellen Ochoa excitedly watched the television as the first man walked on the moon. That historic space mission, known as Apollo 11, captivated the world and inspired a generation of children to dream big, with many imagining themselves as astronauts one day. But not Ellen Ochoa. Watching those men land on the moon, she couldn't yet imagine her own future as an astronaut. It wasn't until many years later that Ochoa's ideas of her own **potential** expanded, opening the path for her to become the first Hispanic woman in space.

2 From a young age, Ochoa enjoyed math and science. However, when she started college in the mid-1970s, the fields of math and science were overwhelmingly led by men, and there were few opportunities for women. She was discouraged by the scarcity of women in her science classes and the low expectations of many of her teachers. One of her science professors at San Diego State University, though, encouraged her to stick to what she loved. Ochoa listened and went on to earn a degree in physics in 1980.

3 Ellen Ochoa's mother had always emphasized the importance of education; in fact, when Ochoa was younger, her mother would often talk about the college classes she was taking while Ellen and her siblings did their own schoolwork. So, with her science degree in hand, Ochoa decided to continue her studies. She went on to earn both a master's degree and a doctorate in electrical engineering from Stanford University.

4 While at Stanford, Ochoa became fascinated by the field of optics, the science that deals with the nature and properties of light. She focused her research in that area and worked with companies that could use her expertise. While there, she helped invent three devices to help robots "see." The first allowed robots to inspect objects for flaws; the second allowed them to identify different objects; and the third reduced distortion, or imperfections, in images of objects. Around that same time, Ochoa saw something that altered the course of her career: Sally Ride, a physics major who had also attended Stanford, became the first American woman in space.

5 Sally Ride's launch into orbit demonstrated that the times—and America's space program—were changing when it came to women's participation in scientific fields. These changes made it possible for the first time for Ellen Ochoa to truly picture herself as an astronaut. So, in 1985, Ochoa decided to apply to NASA's astronaut program. She was not accepted into the program at first. However, her continued work as a researcher and inventor at Sandia National Laboratories and at NASA's own Ames Research Center eventually earned her a spot in the 1990 class of astronaut candidates.

Pictured here playing her flute on a space flight, Ellen Ochoa once considered a degree in music before deciding to pursue science.

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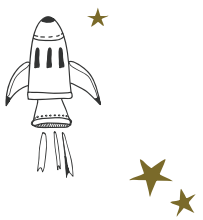
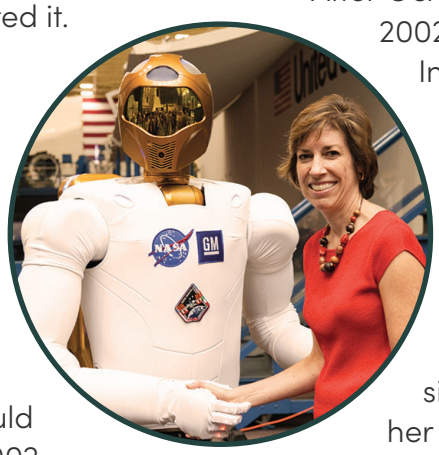


Continue reading, and then answer the questions that follow.

6 Ochoa officially became an astronaut in 1991. She went into space for the first time in 1993, serving as a mission specialist aboard the space shuttle *Discovery*. On this nine-day mission, she and the crew studied Earth's atmosphere and how the sun affected it. Ochoa went into space three more times, spending a total of over 40 days and nearly 1,000 hours in space. In 1999, she was a member of the first space shuttle crew to dock on the new International Space Station (ISS). The space shuttle carried supplies for other astronauts who would later live aboard the ISS and cranes that would be used to continue building it. In 2002, Ochoa returned to the ISS, where she operated robotic arms to help assemble the station.

7 On her 1999 mission, Ochoa brought an **artifact** with her into space to celebrate the contributions of women who paved the way and opened up new opportunities for women like herself. She and two fellow female astronauts displayed the banner of the National Women's Party (NWP), the group of women who had fought for and helped win the right to vote for American women in 1920.



8 After Ochoa's final mission into space in 2002, she continued to work for NASA. In 2013, she became the first Hispanic woman director of the Johnson Space Center in Houston, Texas. Ochoa has received numerous awards for her service, including the Distinguished Service Medal, NASA's highest award. At least six schools have been named in her honor, and she was inducted into the U.S. Astronaut Hall of Fame in 2017. Today, Ellen Ochoa's accomplishments inspire girls and women everywhere, Hispanic and non-Hispanic, to pursue their dreams in the fields of science and math.

Image: Ellen Ochoa, Deputy Director of NASA's Johnson Space Center, posing with Robonaut 2 in 2010.

Answer the following questions about the biography of Ellen Ochoa.

1. **Part A.** What is the most likely reason that, in 1969, Ochoa could not envision herself becoming an astronaut?

   A. She was not interested in math and science at that time in her life.

   B. She had never seen someone who resembled herself do anything like that.

   C. She thought it would be too scary and dangerous to go into space.

   D. She wanted to become a professor at San Diego State University.

1. **Part B.** Explain your answer choice to Part A, citing at least one piece of evidence from the text.

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2. What is the meaning of the word **potential** as it is used in paragraph 1?

   A. possibilities **B.** desires

   C. disappointments **D.** interests

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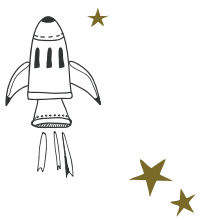

Answer the following questions about the biography of Ellen Ochoa.

3. Based on the information in paragraphs 2–5, why was Ochoa likely so inspired by Sally Ride? Cite specific evidence from the text to support your answer.

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4. Besides Sally Ride, who else helped inspire Ochoa on her path to becoming a successful astronaut? List three people or groups of people, and briefly explain the influence of each.

Person/Group	Influence

5. Paragraph 7 states that Ochoa brought an **artifact** with her on her 1999 mission. Based on context clues in the text, what kind of object is an artifact?

A. decorative **B.** useful

C. historical **D.** dangerous

6. Based on the text, what two "firsts" did Ochoa achieve in her career?

A. She was the first American woman in space.

B. She was the first Hispanic woman director of the Johnson Space Center.

C. She was the first woman inducted into the Astronaut Hall of Fame.

D. She was the first Hispanic woman to go into space.

E. She was the first Hispanic person to go into space on four separate missions.

7. Write a short summary of the passage, including the most important ideas.

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