Unit 1/Week4

Title: Ellen Ochoa, Astronaut

Suggested Time: 4-5 days (30-45 minutes per day)

Common Core ELA Standards: RI.3.1, RI.3.2, RI.3.3, RI.3.4, RI.3.5, RI.3.10; RF.3.3, RF.3.4; W.3.2, W.3.4, W.3.10; SL.3.1, SL.3.6; L.3.1, L.3.2, L.3.4, L.3.5

Teacher Instructions

*Refer to the Introduction for further details.*

**Before Teaching**

1. Read the Big Ideas and Key Understandings and the Synopsis. Please do **not** read this to the students. This is a description for teachers, about the big ideas and key understanding that students should take away **after** completing this task.

Big Ideas and Key Understandings

If you work hard, you can accomplish anything.

Synopsis

This is a biography of Ellen Ochoa, the first Hispanic woman astronaut. As a young girl, her mother encouraged her to work hard and said if she did this, she could be anything she wanted to be. This motto carried her through her successes and disappointments, even when discouraged by others. She excelled in school. She became an engineer, an inventor, a musician, and a pilot. Her hard work eventually led to her ultimate dream of becoming an astronaut.

1. Read entire main selection text, keeping in mind the Big Ideas and Key Understandings.
2. Re-read the main selection text while noting the stopping points for the Text Dependent Questions and teaching Vocabulary.

**During Teaching**

1. Students read the entire main selection text independently.
2. Teacher reads the main selection text aloud with students following along.

(Depending on how complex the text is and the amount of support needed by students, the teacher may choose to reverse the order of steps 1 and 2.)

1. Students and teacher re-read the text while stopping to respond to and discuss the questions and returning to the text. A variety of methods can be used to structure the reading and discussion (i.e., whole class discussion, think-pair-share, independent written response, group work, etc.)

Text Dependent Questions

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| **Text Dependent Questions** | **Answers** |
| What does Ellen’s mother tell her? What does this phrase mean? | Her mother told her to “reach for the stars”. To reach for the stars means to do the best you can and set high goals for yourself. Nothing is out of your reach, not even the stars. |
| What did Ellen’s mother believe was the result of hard work? | She believed that if people worked hard, they could be anything they wanted to be. |
| In the section with the heading “The Early Years”, how does the author show that Ellen was good at many things? | The author lists things Ellen did well: she did well in her classes, played the flute, played in the band, excelled in math, and had the highest grades in her class.  Teachers may note that the author used text features, such as headings and captions, to organize the events of Ellen’s life. |
| The author states, “She didn’t let those people *hinder* her learning.” What is the meaning of the word *hinder* and what are the context clues that help you know the meaning? | Hinder means to make something difficult or impossible. The context clues that help us know the meaning are “Some people told her that girls were not good math students.” And “She always did her best.” |
| What did Ellen help invent, or create? | Ellen helped invent robots that used special tools to “see” things around them.  Suggestion for teacher: Invent is not used in the text, but the vocabulary words invention and inventor are in the text. This is a good opportunity to teach this word as part of a word family. |
| Why did the author put the word “see” in quotation marks? | The author put the word see in quotation marks because the robots do not actually see with eyes as we do.  Teachers may note that the author is using personification on this page. |
| How can you tell that the author wants readers to know that music is important to Ellen Ochoa? | The author states that music was an important part of her life and playing the flute made her feel happy. She even played music in space. The author also included pictures of Ellen playing the flute, both when she was younger and when she was in space. This helps to show that she enjoyed playing when she was younger and when she was older. |
| In 1985, Ellen did not get accepted to the space program. How did Ellen react to this news? | She remembered what her mother had always told her: If she worked hard, she could be anything she wanted to be. |
| What did Ellen accomplish, or do, while waiting to become an astronaut? | She joined a space research center and helped astronauts learn more about space. She also learned how to fly a plane.  Teachers should ensure that students understand what a research center is. |
| How does the author show that Ellen had only a small chance of being chosen for the astronaut program? | Of more than 2,000 people who applied, only 22 were chosen. |
| Using information from the section with the heading “Astronaut Training”. List what Ellen learned as part of her astronaut training. | She learned to use computers, special tools, and eat in space; as well as to work with a team of other astronauts. |
| How does Ellen’s earlier work with robots on page 122 help her with her work on the Discovery voyage? | She used what she had learned earlier about robots to control the robot arm on Discovery. |
| What about Ellen made her voyage into space so historic and important? | Ellen was the first Hispanic woman to travel into space. (Teachers should ensure that students understand what it means to be Hispanic.) |

Vocabulary

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|  | **KEY WORDS ESSENTIAL TO UNDERSTANDING**  **BIG IDEAS OF TEXT**  Words addressed with a question or task | **WORDS WORTH KNOWING**  Words to be part of systematic vocabulary instruction, not essential for understanding the big ideas of the text |
| **TEACHER PROVIDES DEFINITION**  not enough contextual clues provided in the text | Hispanic | Engineer  Difficult  Invention, (inventor)  Remained  Research  Robot arm  Satellite  Strap  Deliver |
| **STUDENTS FIGURE OUT THE MEANING**  sufficient context clues are provided in the text | Reach for the stars  Hinder  Disappointed | Explore  Talented  Apply, (Applied)  Space shuttle |

Culminating Task

* Re-Read, Think, Discuss, Write

*Ellen Ochoa’s mother instilled in her the idea that if you work hard, you can accomplish anything. Write a well-developed paragraph that explains how Ellen Ochoa demonstrated this to be true throughout her life. Use at least three specific examples from the text to support your answer.*

Answer: Ellen’s mother taught her that if she worked hard, she could be anything she wanted to be. Ellen demonstrated her belief in what her mother taught her throughout her life. For example, Ellen did her best in school and was a top student. She graduated top of her class and studied hard to become an engineer. Ellen worked hard becoming an inventor and musician. She learned to fly a plane and worked on a research team to learn more about space. Another example of how Ellen showed that she believed if she worked hard, she could be anything she wanted was when she was not accepted into the space program. Rather than give up, Ellen worked even harder to achieve her goal. Her dream of becoming an astronaut finally came true. Astronaut training was hard, but Ellen never gave up. Ellen became the first Hispanic woman to go into space.

Additional Tasks

* Have students use a Venn diagram to compare and contrast life in space versus life on Earth.

Differences may include: There is no gravity in space. Meals come in special packaging. It requires special exercise machines. Astronauts have to strap themselves down for work, exercise, and sleep. Similarities may include: People still do work in space, people still eat and exercise in space even though they have to do it differently than if they were on Earth, etc.

Note to Teacher

* It is important to include discussion about text features, such as headings and captions. Be sure to help the students discover the importance of the author’s use of headings to organize the events in Ellen’s life.
* Be sure to point out the example of irony at the beginning of the text. The author states that her mother told her to “reach for the stars” and later in life Ellen becomes an astronaut.
* Be aware of opportunities for students to respond orally as well as in writing. Also, consider which questions would be appropriate for partner talk. Look for good stopping points each day and chances to check in on student understandings before proceeding further.
* The author puts the word see in quotation marks. Your students may need some discussion on the why the author chose to do that.
* It is important to note that Ellen Ochoa was the first Hispanic woman to go into space. Discuss with students why the author might have felt this was significant enough to mention twice. Students may need a definition of Hispanic: a word used to describe people whose ancestry, or family history, can be traced back to Latin America or Spain.