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** |
| On page 117, what does Ellen’s mother tell her? What does this phrase mean? (p. 117) | 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. |
| Reread page 118. What did Ellen’s mother believe was the result of hard work? (P.118) | She believed that if people worked hard, they could be anything they wanted to be. |
| Reread the section with the heading “The Early Years”. How does the author show that Ellen was good at many things? (p 118-121) | 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. |
| On page 121, the author says, “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.” |
| Reread page 122. What did Ellen help invent, or create?  (P. 122) | 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? (p. 122) | 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? (p. 123) | 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? Use clues from the text on pages 123 and 124 in your answer. | She remembered what her mother had always told her: If she worked hard, she could be anything she wanted to be. |
| Re-read pages 124-125. What did Ellen accomplish, or do, while waiting to become an astronaut? (p. 124-125) | 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? (p. 125) | 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? (p.128) | 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, pg. 128 | Engineer, pg. 121  Difficult, pg. 121  Invention, pg. 122 (inventor, pg. 124)  Remained, pg. 123  Research, pg. 124  Robot arm, pg. 128  Satellite, pg. 128  Strap, pg. 130  Deliver, pg. 130 |
| **STUDENTS FIGURE OUT THE MEANING**  sufficient context clues are provided in the text | Reach for the stars, pg. 117  Hinder, pg. 121  Disappointed, pg. 123 | Explore, pg. 117  Talented, pg. 120  Apply, pg. 123 (applied, pg. 125)  Space shuttle, pg. 128-129 |

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.
* On page 122, 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. The author states this two times: On pages 117 and 128. 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.

Supports for English Language Learners (ELLs) to use

with Basal Alignment Project Lessons

When teaching any lesson, it is important to make sure you are including supports to help all students. We have prepared some examples of different types of supports that you can use in conjunction with our Basal Alignment Project Lessons to help support your ELLs. They are grouped by when they would best fit in a lesson. While these supports reflect research in how to support ELLs, these activities can help ALL students engage more deeply with these lessons. Note that some strategies should be used at multiple points within a lesson; we’ll point these out. It is also important to understand that these scaffolds represent options for teachers to select based on students’ needs; it is not the intention that teachers should do *all* of these things at every lesson.

**Before the reading:**

* Read passages, sing songs, watch videos, view photographs, discuss topics (e.g., using the [four corners strategy](http://www.theteachertoolkit.com/index.php/tool/four-corners)), or research topics that help provide context for what your students will be reading. This is especially true if the setting (e.g., 18th Century England) or topic (e.g., boats) is one that is unfamiliar to the students.
* Provide instruction, using multiple modalities, on selected vocabulary words that are *central to understanding the text*. When looking at the lesson plan, you should note the Tier 2 words, particularly those words with high conceptual complexity (i.e., they are difficult to visualize, learn from context clues, or are abstract), and consider introducing them ahead of reading. For more information on selecting such words, go [here](https://achievethecore.org/page/3167/selecting-and-using-academic-vocabulary-in-instruction). **You should plan to continue to reinforce these words, and additional vocabulary, in the context of reading and working with the text. (See additional activities in the During Reading and After Reading sections.)**

**Examples of Activities:**

* Provide students with the definition of the words and then have students work together to create [Frayer models](http://www.theteachertoolkit.com/index.php/tool/frayer-model) or other kinds of word maps for the words.
* When a word contains a prefix or suffix that has been introduced before, highlight how the word part can be used to help determine word meaning.
* Keep a word wall or word bank where these new words can be added and that students can access later.
* Have students create visual glossaries for whenever they encounter new words. Then have your students add these words to their visual glossaries.
* Create pictures using the word. These can even be added to your word wall!
* Create lists of synonyms and antonyms for the word.
* Have students practice using the words in conversation. For newcomers, consider providing them with [sentence frames](https://achievethecore.org/page/3159/ell-supports-for-writing-and-discussion) to ensure they can participate in the conversation.
  + Practice spelling the words using different spelling practice strategies and decoding strategies. Students could take turns spelling with a partner.
* Use graphic organizers to help introduce content.

**Examples of Activities:**

* Have students fill in a [KWL chart](http://www.nea.org/tools/k-w-l-know-want-to-know-learned.html) about what they will be reading about.
* Have students research setting or topic using a pre-approved website and fill in a chart about it. You could even have students work in groups where each group is assigned part of the topic.
* Have students fill in a bubble map where they write down anything that they find interesting about the topic while watching a video or reading a short passage about the topic. Then students can discuss why they picked the information.

**During reading:**

* Read the text aloud first so that ELLs can hear the passage read by a fluent reader before working with the text themselves.
* Allow ELLs to collaborate in their home languages to process content before participating in whole class discussions in English. Consider giving them the discussion questions to look over in advance (perhaps during the first read) and having them work with a partner to prepare.
* Encourage students to create sketch-notes or to storyboard the passage when they are reading it individually or with a partner. This will help show if they understand what they are reading as they are reading it.
* Ask questions related to the who, what, when, why, and how of the passage. For students that may need a little more help, provide them with [sentence stems](https://achievethecore.org/page/3159/ell-supports-for-writing-and-discussion).
* Continue to draw attention to and discuss the words that you introduced before the reading.

**Examples of Activities:**

* Have students include the example from the text in their glossary that they created.
* Create or find pictures that represent how the word was used in the passage.
* Practice creating sentences using the word in the way it was using in the passage.
* Have students discuss the author’s word choice.
* Use graphic organizers to help organize content and thinking.

**Examples of Activities:**

* Have students fill in a chart to keep track of their 5ws while they read to help them summarize later and figure out the central idea of a passage.
* It may again be beneficial to have somewhere for students to store new words that they encounter while reading the text. Students could use a chart to keep track of these new words and their meanings as they read.
* If you had students fill in a KWL, have them fill in the “L” section as they read the passage.
* Utilize any illustrations or text features that come with the story or passage to better understand the reading.
* Compare/contrast the passage with what the illustrations convey about the passage. Have students consider if the illustrations look the way they visualized the passage in their own minds or if the passage matches their predictions based on the illustrations.
* Identify any text features such as captions and discuss how they contribute to meaning.

**After reading:**

* Present directions for any post-reading assignments orally and visually; repeat often; and ask English Language Learners to rephrase.
* Allow ELLs to use English language that is still under development. Students should not be scored lower because of incorrect spelling or grammar (unless the goal of the assignment is to assess spelling or grammar skills specifically). When grading, be sure to focus on scoring your students only for the objective(s) that were shared with students.
* Scaffold questions for discussions so that questioning sequences include a mix of factual and inferential questions and a mix of shorter and more extended responses. Questions should build on each other and toward inferential and higher-order-thinking questions. There are not many factual questions already listed in the lesson instructions, so you will need to build some in as you see fit. More information on this strategy can be found [here](https://achievethecore.org/aligned/creating-sequencing-text-dependent-questions-support-english-language-learners/).
* Reinforce new vocabulary using multiple modalities

**Examples of activities:**

* Using the words that you had students work with before reading, have students write sentences in reference to the passage that you just finished reading.
* Require students to include the words introduced before reading in the culminating writing task.
* For newcomers, print out pictures that represent the words that you focused on and have students match the words to the pictures.
* Based on different features of the words, have the students sort them into different categories and explain their choices. For example, the students could sort the words by prefixes, suffixes, connotation, etc.
* After reading the passage, continue to examine important sentences (1–2) in the text that contribute to the overall meaning of the text. Guide students to break apart these sentences, analyze different elements, and determine meaning. More information on how to do this, including models of sentence deconstruction, can be found [here](https://achievethecore.org/page/3160/juicy-sentence-protocol).
* Provide differentiated scaffolds for writing assignments based on students’ English language proficiency levels.

**Examples of Activities:**

* For all students, go over the prompt in detail, making sure to break down what the prompt means before having the students get to work. Then have the students explain the directions back to you.
* Have students create an evidence tracking chart during reading, then direct them to look back over their evidence chart and work with a group to see if their evidence matches what the rest of the class wrote down. If some of the chart does not match, students should have a discussion about why.
* For students who need more support, model the proper writing format for your students and provide them with a properly formatted example for reference.
* For newcomers, you may consider creating sentence or paragraph frames to help them to write out their ideas.
* To further discussion about the passage, have students create their own who, what, when, where, why, and how questions related to the passage to ask each other and have students pair up and practice asking each other the questions. If available, pair students of the same home language to support the use of language still under development.