



# Teaching with Ellen Ochoa: Breaking Barriers in Space

## CONNECTION TO STANDARDS

Students will identify the front cover, back cover, and title page of a book. (CCSS.ELA-LITERACY.RI.K.5)

## DIFFERENTIATION FOR ESL

- Review these additional vocabulary words in context: *affect, developing, research, astronaut, invented, devices, mission, exploration, inspire.*
- Have students choose one of the vocabulary words and write it in a new sentence.
- Provide each student with sticky notes. While reading, encourage students to put a sticky note next to any phrase or word in the text that they find confusing. After reading, pair students with a partner and allow them to help each other clarify the words' or phrases' meanings.



Lexile: 760  
Words: 570

GRL: TK

## BEFORE READING

### Build Background Knowledge:

- Ask students to imagine what it would be like to go to space. Would it be scary? Fun? Exciting? Have students raise their hands if they would want to go to space.
- Invite students to share what qualities they feel someone must have to be an astronaut. Answers may include things like “brave”, “smart”, and “adventurous”.
- Tell students that they’ll be reading about former astronaut Ellen Ochoa, the first Hispanic woman to ever go to space.

### Preview

- Show the cover of the book. Read the title and ask students if they know who Ellen Ochoa is. If not, have them read the subtitle and look at the illustration to see if they can figure it out. If necessary, help students determine that Ellen Ochoa is a former astronaut.
- Point out the word “barriers” in the subtitle. Explain that a barrier is something that makes something else difficult or impossible. Tell students that as they read the book, they will learn how Ellen broke barriers in space.
- Lead students in a brief picture walk of the book, exploring the illustrations and photos on each page. Have students identify one or two details in each illustration or photo.

## Predict:

- Ask students to predict some of the things they will learn about Ellen Ochoa in the book. Have students support their predictions with evidence they discovered while previewing the book.

## Vocabulary:

- Turn to page 23 (“Words to Know”). Read each vocabulary word. Invite students to raise their hands if they know the word and to define it for the class. Then read the definition provided. Ask students to consider whether the provided definition matches their understanding of the word.
- Strengthen understanding of words students do not know well by modeling how to use the word in a sentence. Create sentences with rich context clues, then review how the context clues help students understand the meaning.

## Skill Introduction:

- Review the cover of the book and point out its various elements. The **title** tells readers what the book is about. The **subtitle** provides more information about the title. “Beginner Biography” (at the top) is the name of the book series, and “LOOK Books!” (at the bottom) is the name of the product group.
- Turn to page 1 and explain that this is the “title page”. Ask students the following questions:
  - *What do you see on the title page that’s also on the cover?* (the title, the subtitle, and the names of the book series and product group)
  - *What do you see on the title page that’s not on the cover?* (a different illustration; the names of the author, illustrator, and publisher; the publisher’s location)
- Explain that a book’s title and subtitle, its author and illustrator names, its publisher, and the publisher’s location are always included on a title page.
- Turn to the back cover of the book and point out all of its elements. Read the book summary aloud. Explain that a book’s summary on its back cover tells readers what the book is mainly about. Have students raise their hands if the summary makes them want to read more about Ellen Ochoa.

## DURING READING

**Check for Understanding:** Ask students the following questions as they read.

- pp. 6-9, *Was Ellen a good student?* (Yes) *What sentences from the text support your answer?* (She worked hard and got very good grades. She decided to study physics. After college, Ellen went to another university to study engineering.)
- pp. 10-12, *How many times did Ellen apply to be an astronaut before she got the job?* (Three)

- pp. 12-14, *How did Ellen make history in April 1993?* (She became the first Hispanic woman ever to go to space.) *How many times total did Ellen go to space?* (Four)
- p15, *What are some things Ellen did in space?* (She operated a robotic arm to place satellites in orbit. She did science experiments. She worked on the International Space Station. She exercised. She played the flute.)
- p. 16, *What important job did Ellen have after she finished going to space?* (She was the first Hispanic director of the Johnson Space Center.
- p. 18, *What are some honors Ellen has received?* (She earned NASA's highest award, the Distinguished Service Medal. She was inducted into the U.S. Astronaut Hall of Fame. She has six schools named after her.)

### **Reinforce Vocabulary:**

- p. 8: Review the definition of *matter*. Invite students to call out examples of things that are matter. Eventually, the class will reach the conclusion that *everything* is matter.
- p. 14: Go over the definition of *orbit*. Invite two volunteers to come to the front of the classroom. Have one act out orbiting the other in a circular shape, and then have them switch places. Invite two more volunteers to the front, and have them take turns orbiting each other in an oval shape. Explain that Earth orbits the sun in this oval shape.

### **AFTER READING**

#### **Theme:**

- Explain that one theme of the book is that Ellen had to work very hard to become an astronaut, and that she didn't give up even though she was turned down the first two times she applied. Ask students to share some of the things Ellen did to become an astronaut, such as studying physics in college and working at NASA as a research engineer.
- Invite students to share something they have accomplished that they had to work hard and/or keep trying for, like making a sports team or getting a good grade on a test.

#### **Skill:**

- **CREATE A BOOK COVER:** Have students draw and color an alternate cover for the book with its own unique subtitle.
- On the back of that page, have them write their own three-sentence summary for the back cover.
- Display the students' book covers side-by-side to compare and contrast!

You and your students can see the International Space Station from Earth. Go to [Spotthestation.NASA.gov](http://Spotthestation.NASA.gov) to see when the ISS will fly over your city and the best times to see it in the sky.