

A Teacher's Guide to
**SWIMMING
WITH
SHARKS**

The Daring Discoveries of
Eugenie Clark



Heather Lang

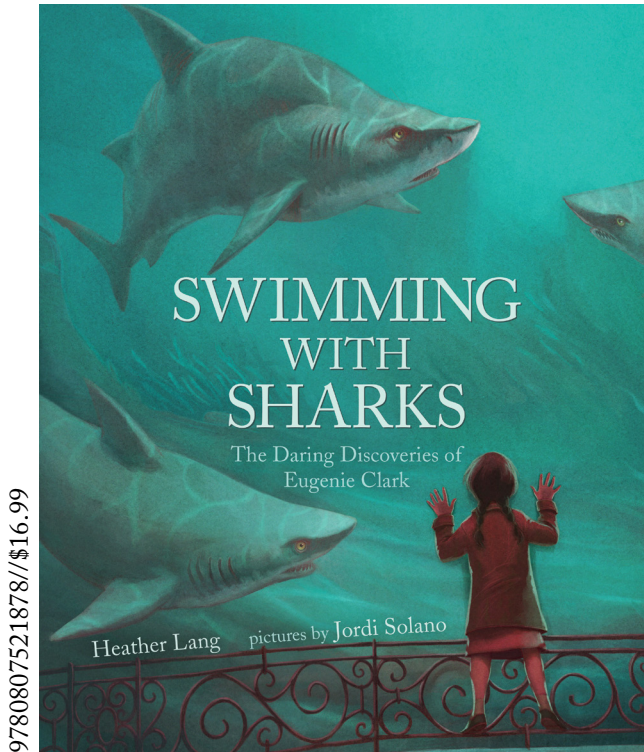
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Ages 4-8 // Grades PreK-3

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ABOUT SWIMMING WITH SHARKS



Before Eugenie Clark’s groundbreaking research, most people thought sharks were vicious, blood-thirsty killers. From the first time she saw a shark in an aquarium, Japanese-American Eugenie was enthralled. Instead of frightening and ferocious eating machines, she saw sleek, graceful fish gliding through the water. After she became a scientist—an unexpected career path for a woman in the 1940s—she began taking research dives and training sharks, earning her the nickname the “Shark Lady.”

About Heather Lang

Heather Lang is the author of several picture book biographies, including *The Original Cowgirl: The Wild Adventures of Lucille Mulball* and *Fearless Flyer: Ruth Law and Her Flying Machine*. She lives in Massachusetts.

About Jordi Solano

Jordi Solano never leaves home without a sketchbook and pencil. He lives in Spain.



BEFORE READING

Building Background Knowledge and Setting a Purpose for Reading

Discussion Questions

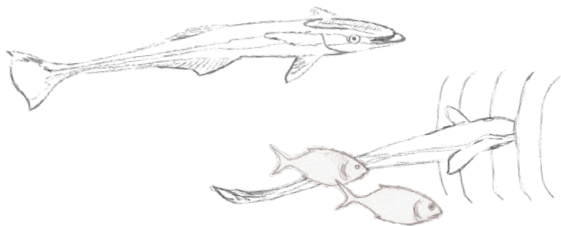
- What is a biography?
- How does it differ from other “text types”?
- What other biographies have you read?
- What can we learn from reading about the lives of others?
- How can a person’s decisions and actions change his/her life?
- In what ways do people impact others and the world?
- What do you know about the story by looking at the title and cover illustration?
- Who are you going to be reading about?
- What did this person do?
- What type of person do you think Eugenie Clark is?

Create a Class “KWL” Chart

What do you *know* about sharks?

What do you *want* to know about sharks?

Read to *learn* about sharks through the discoveries of Eugenie Clark.



Survey

Answer *yes*, *no*, or *don't know* to each statement or question below:

- All sharks are dangerous to people.
- Humans are dangerous to sharks.
- Sharks have been around since before the time of dinosaurs.
- We know about sharks because scientists study and observe their behaviors.
- Have you seen a living shark?
- Most countries have good regulations about shark fishing.
- Would you be afraid to swim in the ocean because of sharks?
- Do you want to learn more about sharks?

Collect the survey and revisit after reading *Swimming with Sharks: The Daring Discoveries of Eugenie Clark*.

DURING READING




Predicting, Inferring, and Inquiring



- What do you do when you come to a word or phrase that you do not understand?
- How do context clues help you to understand word meaning in the story?
- As you read, write down words that you do not know. For each word, look at the words around it. Predict the meaning of the word. Does it make sense to the story?

Ask and Answer Questions

- How do the illustrations enhance meaning?
- How do the illustrations enhance the tone of the story? What is the tone at certain points in the book?
- Who is the main character? 
- What are the thoughts, conversations, actions, and feelings of Eugenie Clark?
- Where does the story take place? How does the setting change throughout the book?
- What is the point of view of the book?
- Summarize each page as you read.
- How does the story change from the beginning to the end?
- How does Little Genie change as the plot develops?
- Analyze the impact of specific word choices used by the author, Heather Lang.
- What are the themes and central ideas of the book? How does the author develop the themes?
- After reading the author's note: What is the author's purpose for writing *Swimming with Sharks*?

AFTER READING

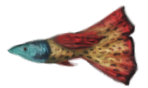
Constructing Meaningful Connections to the Text



Word Work

Create a class list of difficult vocabulary from the story. Create three columns. The first column has the surrounding words for context, the second column has the inferred meaning, and the third column is for the dictionary definition.

Discussion Questions



Use evidence from *Swimming with Sharks* to answer these questions:

- How was Eugenie Clark different?
- How did Genie's family support her interests?
- What challenges did she face? How was she discriminated against as both a woman and a Japanese American?
- Why was Eugenie Clark successful? Why did people ultimately listen to her?
- How did Eugenie Clark change the world?
- What significance does marine biologist William Beebe have in the story?
- What is an ichthyologist?
- Explore what the author meant by the following, then find other ways that the author uses figurative language.
 - "The ocean became her classroom"
 - "She jumped at the chance"
 - "The kelp welcomed her, waving back and forth with the underwater currents"
 - "She never stopped pressing her face against the glass and wondering"
- Why do you think the author added pictures of Eugenie Clark at the end of the book?

Science Connections

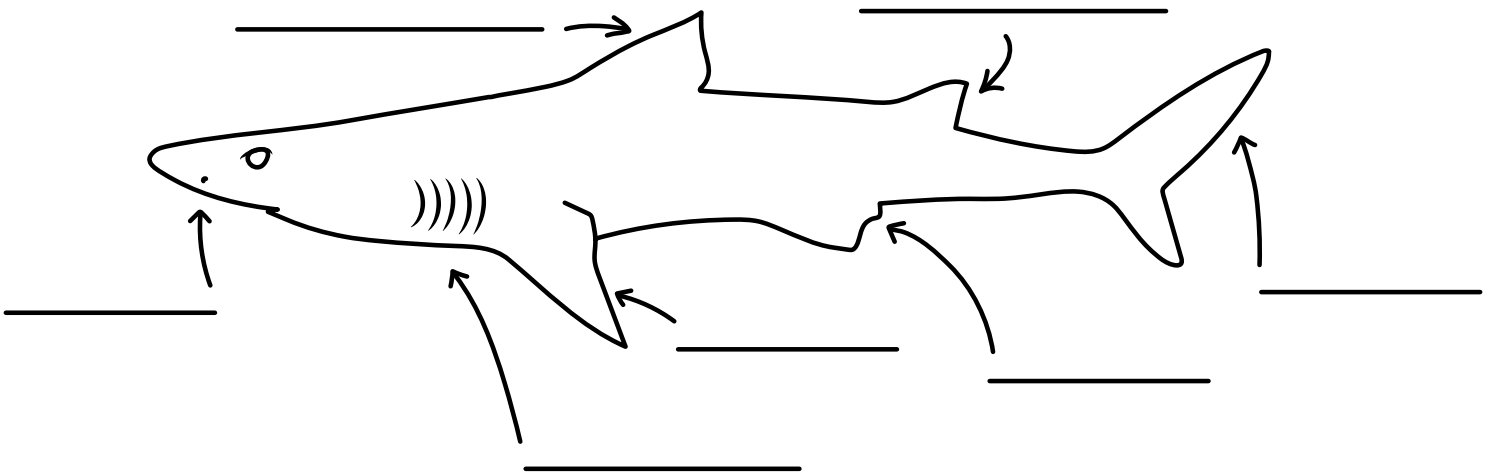
- What did Genie find out about sharks?
- What did she mean by “sharks are magnificent and misunderstood”?
- What role do sharks play in the ecosystem, and what benefits do they give to humans?
- What did you learn about sharks? Go back to the survey you took prior to reading the story. Are there any answers that you can change? Explain.
- What role do humans have in the destruction of shark populations?

Research

- How have sharks survived throughout time? Describe characteristics and adaptations that enable them to survive for so long.
- Investigate the laws protecting sharks in different areas around the world. Create a poster.
- Explore a shark breed that interests you, such as great white sharks, hammerhead sharks, blacktip sharks, dogfish sharks, lemon sharks, nurse sharks, bull sharks, and tiger sharks. Prepare a presentation using visual aids.

Cut here

FIND THE SHARK PARTS



WORD BANK

pectoral fin

second dorsal fin

pelvic fin

caudal fin

gill openings

nostril

first dorsal fin

- How do movies like *Jaws* and *Deep Blue Sea* affect people’s attitudes toward sharks? In small groups, discuss the “bad” reputation and stereotypes of sharks.
- Examine why sharks have been hunted in great numbers around the world. Do you think these are good reasons? Why or why not? What factors caused this to happen?
- The “golden age” for sharks was during the Carboniferous Period, about 360 million years ago. Compare and contrast a shark from the “golden age” with a shark from today that you have researched.
- Create a timeline of Eugenie Clark’s life and accomplishments. Create another timeline of marine biology and ocean research. Where do the timelines intersect?
- Explore how underwater diving technology that allowed Eugenie Clark to do her research changed from the 1940s to the 2000s.
- Compare and contrast Eugenie Clark with another successful woman known for making significant contributions in the field of science.
- Write the biography of Eugenie Clark in your own words. Use information from the story and two other sources. Include:
 - Details about this person’s life
 - Major events that affected this person’s life and why
 - How this person affected any personal, national, or world events
 - Specific contributions this person made that give her special status
 - Personality traits that helped this person achieve success and or fame
 - Obstacles this person has overcome in her life



Guided Reading Level: N
 This guide is designed for students in grades 3–5 who would like to explore this topic in depth, although the book is suitable for children as young as those in preschool.

Instructional alignments in this guide:
 RI.3-5.1,2,3,4,5,6,7,8,9,10
 RF.3-5.4,4a,4c
 W.3.1,2,4,6,7,8,10/4-5.1,2,4,6,7,8,9,10
 SL.3-5.1,4,5
 L.3-5.4a,4c,5,6

Next Generation Science Standards in this guide:
 3-LS2- Ecosystems: Interactions, Energy, Dynamics.
 3-LS3- Heredity: Inheritance & Variation of Traits
 3-LS4- Biological Evolution: Unity & Diversity
 4-LS1- From Molecule to Organism: Structures and Processes
 5-LS2- Ecosystems: Interactions, Energy, Dynamics.
 5-ESS3- Earth and Human Activity

Prepared by Marla Conn, a reading specialist, educational consultant and workshop presenter who specializes in creating meaningful connections to literature.