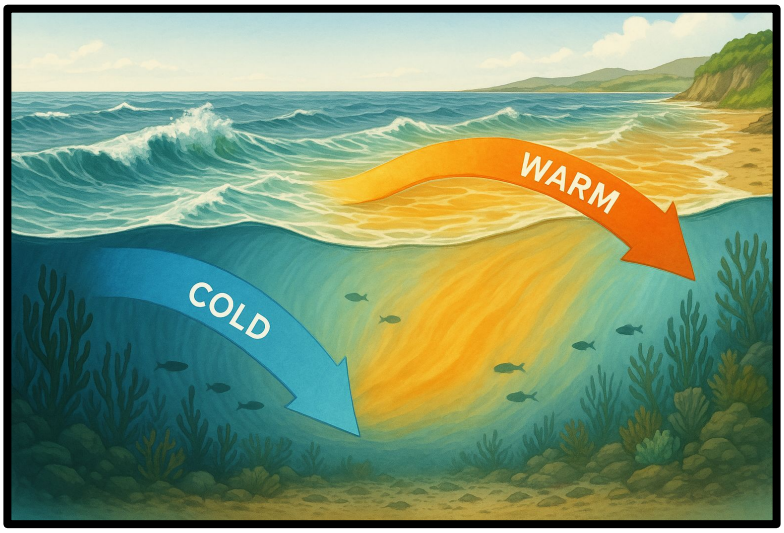
Reading Comprehension Worksheet: Explain Connections in Information

Read the short story and answer each question.



Ocean Currents and Climate

If you've ever stood on a beach and felt the ocean breeze, you've already experienced the power of the ocean. But far below the surface, **ocean currents** are moving massive amounts of water across the globe—and they play a major role in shaping Earth's **climate**.

Ocean currents are like underwater rivers. Some are warm, while others are cold. These currents are caused by a combination of wind, Earth's rotation, and differences in water temperature and salt levels. As they move, they carry heat from one place to another.

For example, the **Gulf Stream** is a warm current that flows from the Gulf of Mexico across the Atlantic Ocean toward Europe. It helps keep parts of Europe warmer than other places at the same latitude. Without it, winters there would be much colder.

In contrast, cold currents like the **California Current** cool the air near the western United States. These currents also affect weather patterns, making some areas foggy or dry.

The relationship between ocean currents and climate is complex. But scientists study this connection to understand and predict changes in Earth's environment. If ocean currents slow down or change direction, it can lead to rising sea levels, stronger storms, or even droughts.

The ocean doesn't just shape coastlines—it helps shape the weather all around the world.

Name:

Ocean Currents and Climate

1. What is the relationship between ocean currents and climate?

A. Ocean currents move heat and help control weather and temperature around the world.

B. Ocean currents only affect animals living in the sea.

C. Climate and currents have no connection to each other.

D. Currents only form in the summer and disappear in winter.

2. How do warm and cold currents affect the land they pass by?

A. Warm currents bring heat, while cold currents bring cooler, drier air.

B. Both types of currents always cause storms.

C. Warm currents freeze the water near land.

D. Cold currents turn into icebergs near the coast.

3. Fill in the blank:

The _____ Stream carries warm water from the Gulf of Mexico to Europe.

4. How do ocean currents help explain why some coastal places have warmer or colder climates than others?

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5. What details in the text show how changes in ocean currents could impact weather and the environment?

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Parent and Teacher Guide

Guide Reading Level: U
Lexile Level: 925L-1075L
Grade Level: 5th Grade, Middle of the Year
Genre: Informational – Earth Science

Introducing the Text

"This passage explains how ocean currents interact with Earth's climate. Students will analyze the cause-and-effect relationship between warm and cold currents and the weather conditions they influence. They'll also examine how these systems impact global climates and why scientists study them."

Vocabulary: ocean current, climate, Gulf Stream, California Current, environment

Before Reading Discussion Questions

1. What do you think makes some coastal places warmer or cooler than others?
2. Why might scientists want to study ocean water movement?
3. What do you know about how the ocean affects the air or weather?

During Reading Discussion Questions

1. How does the Gulf Stream affect Europe's climate?
2. What causes ocean currents to move around the world?
3. How does the passage connect ocean movement with climate change?

After Reading Discussion Questions

1. How are ocean currents and climate connected?
2. What specific events or examples show this connection in action?
3. Why is it important to understand how the ocean affects our weather?

Activity Idea

Have students draw a world map showing the Gulf Stream and California Current. Then, label nearby areas and explain how the current affects each region's climate. Students should include a brief paragraph explaining how these interactions support the main idea of the passage.