

## Polar Currents Answer Key

1. Antarctica
2. The strongest winds on the planet create powerful waves and waters.
3. Answers may include emperor penguins, leopard seals, or blue whales.
4. Because it absorbs heat and carbon from the atmosphere, helping regulate Earth's climate.
5. Sample answer: It is colder, stormier, and has stronger currents than other oceans.
6. It moves water continuously around the globe without being blocked by land.
7. It helps them understand how heat and carbon move through the ocean and atmosphere.
8. Answers will vary.

### Teacher's Guide

- Grades 3 to 5: Read the passage aloud or in partners. Support students with guided questioning.
- Grades 6 to 8: Have students annotate the passage and cite text evidence.
- Grades 9 to 12: Encourage deeper analysis focusing on climate regulation, ocean currents, and global systems.

### Differentiation Tips

- Provide sentence starters for younger learners.
- Allow oral responses for students needing language support.
- Offer an optional glossary for words like circumpolar, regulate, or atmosphere.

### Extension Activities

- Write a short informational paragraph about one Southern Ocean animal.
- Research how climate change is affecting the waters around Antarctica.
- Create a travel journal entry pretending to be an explorer crossing the Southern Ocean.