

Name _____

Antarctica: The Frozen Frontier

Short Answer Key

1. The Southern Ocean plays a crucial role in Antarctica's climate and ecosystem by regulating temperatures, providing nutrients, and supporting the abundance of krill, which forms the basis of the food web.
2. Possible answer: The Weddell seal is found in Antarctica and adapts to extreme conditions by having a thick layer of blubber, specialized blood vessels, and the ability to fast for long periods.
3. The Antarctic Treaty is an international agreement that designates Antarctica for peaceful purposes only, bans military activity, mineral mining, and nuclear testing, and promotes scientific cooperation. It contributes to the protection of Antarctica by ensuring its preservation for future generations.
4. Studying Antarctica's ice cores is essential for understanding Earth's climate because they provide a historical record of past climate conditions, including temperature and atmospheric composition. Analyzing ice cores helps scientists trace the history of climate change.
5. Possible answer: I would like to have the experience of visiting a research station in Antarctica to learn about ongoing scientific studies, witness the unique wildlife, and immerse myself in the continent's extreme but beautiful environment.

