

Name \_\_\_\_\_

## Understanding the Threats to Ocean Ecosystems and Biodiversity

### Open-Ended Response Answer Key

1. The interconnectedness of threats to ocean ecosystems means that addressing one issue can have positive effects on others. For example, reducing pollution can improve water quality and benefit marine life, while also helping to mitigate climate change by reducing greenhouse gas emissions from land-based sources.
2. As a marine biologist, I would investigate the impact of climate change on coral reefs and the associated biodiversity. This research would involve studying coral bleaching events, assessing the resilience of coral species, and developing strategies to protect these vital ecosystems.
3. Marine protected areas (MPAs) play a crucial role in conserving ocean biodiversity by providing safe havens for marine life to thrive. Examples include the Great Barrier Reef Marine Park and the Papahānaumokuākea Marine National Monument. MPAs help protect species, preserve critical habitats, and support sustainable fishing practices, ultimately contributing to healthier oceans.
4. Individuals and communities can take several steps to preserve ocean ecosystems and biodiversity, such as reducing plastic use, supporting sustainable seafood choices, participating in beach cleanups, advocating for marine conservation policies, and raising awareness about the importance of oceans in our daily lives. These actions collectively contribute to a more sustainable future for our oceans.

