

Name \_\_\_\_\_

## The Symphony of Life: Exploring Biodiversity

### Open-Ended Response Answer Key

1. Biodiversity is important for the health and stability of ecosystems because it provides ecosystem services like pollination, nutrient cycling, and water purification. These services support life on Earth by ensuring the availability of resources and maintaining the balance of ecological processes.
2. One benefit of biodiversity mentioned in the passage is its role in providing food, medicine, and other resources that humans depend on. For example, many of the foods we eat, such as fruits and vegetables, are derived from diverse plant species. Likewise, numerous medicines, including antibiotics and cancer treatments, are derived from natural compounds found in plants, animals, and microorganisms.
3. Human activities can threaten biodiversity in various ways, including habitat destruction, pollution, climate change, and overexploitation of natural resources. These threats can lead to the loss of species and ecosystems, disrupt ecological processes, and reduce the resilience of ecosystems to environmental changes and disturbances.
4. Individuals and communities can contribute to biodiversity conservation by participating in conservation efforts, supporting sustainable practices, and advocating for policy changes. For example, individuals can volunteer for wildlife conservation organizations, reduce their ecological footprint by conserving resources and minimizing waste, and educate others about the importance of biodiversity conservation. By taking these actions, individuals and communities can help protect biodiversity and ensure a sustainable future for all life on Earth.

