

Name \_\_\_\_\_

## Exploring Our Amazing Planet: Earth

### Open-Ended Response Answer Key

1. Human activities, such as deforestation, pollution, and burning fossil fuels, have a significant impact on Earth's environment. These activities contribute to climate change, habitat loss, and a decline in biodiversity. Conservation efforts are crucial to protecting ecosystems, preserving biodiversity, and ensuring a sustainable future.
2. The water cycle involves the continuous movement of water through evaporation, condensation, precipitation, and runoff. It is essential for life on Earth because it replenishes freshwater sources, provides moisture for plants, and regulates Earth's temperature by transferring heat.
3. Earth's atmosphere is crucial in maintaining a stable climate by trapping heat through the greenhouse effect. It prevents extreme temperature fluctuations between day and night, making Earth habitable for a wide variety of life forms.
4. Plate tectonics is responsible for the movement of Earth's lithospheric plates, leading to the formation of mountain ranges, earthquakes, and volcanic activity. While these processes can be destructive, they also contribute to the Earth's geological diversity and the creation of landforms.

