

Name \_\_\_\_\_

## The Ever-Changing Weather: Why Does It Change from Day to Day?

### Open-Ended Response Answer Key

1. (Local event required) Answers will vary based on the chosen weather event and region.
2. Weather forecasting is vital for making decisions in agriculture, transportation, emergency preparedness, and more. Accurate predictions can help individuals plan outdoor activities, farmers plant crops, and cities prepare for severe weather events like hurricanes or blizzards.
3. Steps for providing a reliable weather forecast may include collecting current data, analyzing weather models, monitoring satellite imagery, and considering local geography. Tools such as weather balloons and radar systems may be used. Data sources may include weather stations, satellites, and weather models.
4. Climate change can lead to more frequent and severe extreme weather events, such as heatwaves, hurricanes, and flooding. Adaptation measures may include improving infrastructure resilience, implementing water management strategies, and reducing greenhouse gas emissions to mitigate further climate change impacts.

