

Name \_\_\_\_\_

## Before and After: Aftershocks and Foreshocks of Earthquakes

### Open-Ended Response Answer Key

1. Answers will vary depending on the historical earthquake event discussed. Include details about the event, its mainshock, foreshocks, and aftershocks, as well as their impacts.
2. Some earthquakes come with foreshocks due to the complex nature of tectonic interactions, stress buildup, and release. Scientists are researching patterns and stress indicators to improve foreshock predictability.
3. Monitoring aftershocks is essential to assess ongoing seismic activity and potential hazards. This information helps communities plan recovery efforts, secure infrastructure, and ensure safety.
4. Predicting earthquakes remains challenging due to the dynamic nature of the Earth's crust. Preparedness measures include creating emergency plans, securing structures, and educating the public about earthquake safety. Community and government involvement is crucial in disaster planning and response.

