

Plotting and Analyzing Earthquakes

1. Pre-lesson assessment (Formative)
 - a. Have students make predictions and use their background knowledge about earthquakes, how earthquakes occurs, where they are most likely to occur, and what causes earthquakes.
 - i. See Earthquake Prediction Handout
2. Activity assessment
 - a. Earthquake Plotting Data- Students were given a teacher-made table of recent earthquake data (location, latitude/longitude, magnitude) from this website: <http://earthquake.usgs.gov/earthquakes/map/>
 - i. See attached Our World's Most Recent Earthquakes Table
 - ii. See attached World Map
 - b. Using the latitude and longitude coordinates, students plotted dots on world map to represent epicenter of earthquakes.
3. Post-assessment: Analyzing Earthquake Data (Formative)
 - a. Students analyzed their world map and compared it to the tectonic plate map to draw conclusions about earthquakes.
4. Conclusions (Summative)
 - a. Students write a paragraph concluding where earthquakes occur and why.

**Attached are modified versions for special education students

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Plotting and Analyzing Earthquakes Rubric

	3	2	1
Pre-assessment	Student predicts and explains the causes and locations of earthquakes.	Student somewhat attempts to predict and explain the causes and location of earthquakes.	Student attempted
Plotting Earthquake Data	Student accurately plotted all/most coordinates on world map.	Student accurately plotted some coordinates on world map.	Student attempted
Analyzing Earthquake Data	Students accurately describes the relationship between plate boundaries and earthquakes.	Student somewhat accurately describes the relationship between plate boundaries and earthquakes (few misinterpretations).	Student attempted
Post-assessment	Student explains the causes and locations of earthquakes.	Student somewhat attempts to explain the causes and location of earthquakes.	Student attempted
Conclusion	Student accurately determines where the most earthquakes are occurring and why.	Student somewhat accurately determines where the most earthquakes are occurring and why.	Student attempted