

Name: _____

Date: _____

Geology Jeopardy

Earthquakes

10 What is the name for an area around the Pacific Ocean where there are many subduction zones on the edges of the continents?	
20 Put the locations in order of less likely to more likely that an earthquake will occur. A. In the middle of a tectonic plate far from any hotspots or plate boundaries B. On the boundary between two converging tectonic plates. C. In the middle of a tectonic plate near a hotspot D. On the boundary of two diverging tectonic plates	
30 Which three of the following locations are likely to have an earthquake occur? A. Deep in the Earth's crust in a subduction zone. B. In the middle of a tectonic plate far from any hotspots or plate boundaries C. In a subduction zone near the surface. D. Along a transform plate boundary E. Ohio	
40 Explain the geologic process that results in volcanoes forming in the Pacific Northwest? (use "oceanic plate," "continental plate" & "subduction" in your answer).	
50 How could pumping water deep into Earth cause earthquakes?	

Scientific Inquiry

10 Question: How does underground oil drilling affect the number of earthquakes along fault lines in Italy? Identify the missing part(s) of this conclusion: The deeper the drilling and the more oil drilling that happens, the more earthquakes. Breaking up parts of the Earth's crust, particularly in regions close to fault lines, can cause tectonic plates to move, resulting in earthquakes.	
20 In a study asking this, "How does the depth of oil drilling affect the magnitude of earthquakes?" What is the independent variable?	
30 In a study asking this, "How does the depth of oil drilling affect the magnitude of earthquakes?" What is the dependent variable?	
40 In a study asking this, "How does the depth of oil drilling affect the magnitude of earthquakes?" What is a controlled variable?	
50 Write a scientific conclusion: How does the depth of oil drilling affect the magnitude of earthquakes? <u>Depth of Drilling Earthquake Magnitude</u> 100 meters deep 0.8 average magnitude 500 meters deep 2.1 average magnitude 900 meters deep 3.4 average magnitude	

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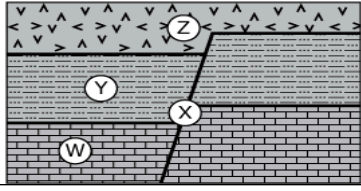
Geologic Processes

10 What are the different rock types, and how is each made?	
20 Give two examples of how one rock type can change to another rock type.	
30 Explain each of these types of tectonic activity. A. Divergent plate boundary B. Convergent plate boundary C. Transform plate boundary D. Hotspot	
40 What is evidence for the theory that earthquakes and volcanoes are the results of tectonic plate interactions?	
50 Explain what happens in a subduction zone, including at least three catastrophic events that can result.	

Volcanoes

10 Which is more likely to erupt, a volcano that has erupted 12 times in the past 4,000 years, or one that erupted once in that same time frame?	
20 Put the locations in order of less likely to more likely that a volcano will occur. A. In the middle of a tectonic plate far from any hotspots or plate boundaries B. Near a subduction zone between two converging tectonic plates. C. In the middle of a tectonic plate right above a hotspot D. On the boundary of two diverging tectonic plates	
30 Using the same letters as above, what describes Hawaii?	
40 Using the same letters as above, what describes Mt. Rainier?	
50 How is the shape of a volcano determined by the viscosity of the lava?	

Miscellaneous

10 Rock layers W, Y and Z and fault X are shown. The rock layers and the fault were formed at different times. Put them in order of formation from oldest to youngest.		
20 Match the part of the rock cycle with the geologic process. 1. Sedimentary <input type="checkbox"/> Metamorphic 2. Igneous <input type="checkbox"/> Sediments 3. Magma <input type="checkbox"/> Igneous 4. Metamorphic <input type="checkbox"/> Magma	A. Weathering B. Heat & pressure C. Crystallization D. Melting	
30 Which of the following three items are evidence that support the theory of plate tectonics? A. The seafloor is spreading apart and new seafloor is forming where it is spreading. B. Continental ice sheets advanced and melted (retreated) many times in the past. C. There are mountain ranges on all continents. D. Evidence of fossils from the same organisms are found on continents an ocean apart. E. The shape of continents like South America and Africa seemed to fit together.		
40 Explain the geologic process that results in new seafloor crust forming? (use "convection currents," "divergent boundary" & "spreading" in your answer).		
50 What are ways that humans cause earthquakes?		

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