

Name: _____

Date: _____



Meet the Goddess Pele

Materials needed:

- pencil
- Map of the world (attached)
- Internet connection (optional)

In 1943, a farmer was working in his corn fields in Mexico. He noticed some smoke at one end of his land. The farmer was sure that some of his crops were on fire. When he arrived at the source of the smoke, he was surprised to see hot lava coming out of the ground. Within ten weeks, he had a 375-meter (1,230-foot) volcano on his land. The name of the volcano, which erupted until 1952, is "Paricutín."



Hawaiian people have lived, for thousands of years, in fear of "the Goddess Pele." They believe that she is a spirit who lives in Kilauea volcano. The people are afraid that when she gets angry, she will cause a volcano to erupt. The volcanoes on Hawaii have been known to destroy many houses.

There is probably no place on Earth that is totally *safe* from volcanic eruptions. However, volcanoes seem to erupt most often in certain areas of the Earth's surface. In this activity, you will see just where the Earth's "hot spots" are.



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You will be instructed how to obtain a list of the most recent volcanic eruptions. Your job is to plot points on the world map attached showing the locations of each volcano. They are listed by latitude and longitude.

When plotting the points on your map, remember that the latitude lines are those that run from left to right across the map. Latitude is a measure of distance north or south of the Equator. Numbers of degrees of latitude get higher as you travel from the Equator (0°) to the North Pole (90° N). They also get higher from the Equator (0°) to the South Pole (90° S). Make sure you notice whether the latitude is north or south of the Equator.

Longitude lines are those that run from the top to the bottom of your map. Longitude is a measure of distance east or west of the Prime Meridian. The Prime Meridian runs through a town in England, named Greenwich. Longitude numbers get higher as you travel from the Prime Meridian (0°) eastward or westward. The maximum longitude is the International Date Line, which is 180° away.

B. When you have completed plotting the points representing volcanic activity, answer the following questions.

Questions:

1. Describe the patterns (if any) as shown on your map:

2. Which parts are the world are probably the most at risk?

3. Which of the following tend to be the 'safer' places to be: a)the edges of continents, or, b)the middle of continents? What evidence do you have to support this?

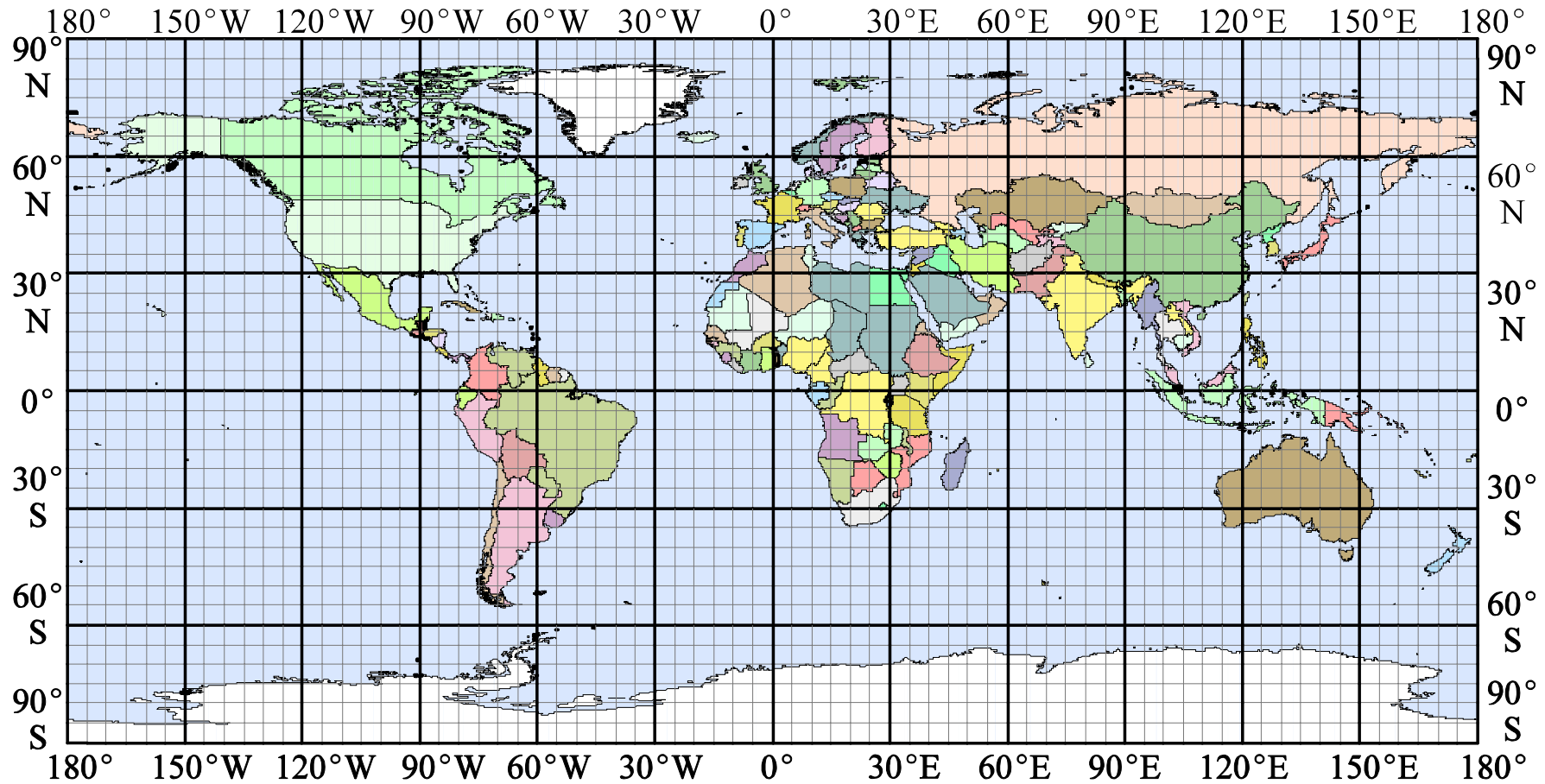


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Procedure:

A. Plot each active volcano on your list with a small dot, and label its code number.



Paula Messina



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4. Above are three pictures taken of Mount St. Helens, before, during, and after its violent eruption in 1980. The volcano's coordinates are: 46.5° North, 122° West. Does this volcano fall into one of your discovered "hot zones?"

5. Locate where you live on the world map. Draw a star at your approximate latitude and longitude. Given the information you have recorded, are you at risk for volcanic activity? Give an explanation of why you think you are—or why you think you are not.

5. How does this map compare to the one showing the earth's earthquakes?

6. How can you explain the correlation between the location of earthquakes, and the location of volcanoes?

