

Volcanoes • Skills Lab

Mapping Earthquakes and Volcanoes

Problem

Is there a pattern in the locations of earthquakes and volcanoes?

Materials

outline world map showing longitude and latitude

4 pencils of different colors

Procedure

1. Use the information in the data table on the next page to mark the location of each earthquake on the world map that follows the data table. Use one of the colored pencils to draw a letter E inside a circle at each earthquake location.
2. Use a pencil of a second color to mark the locations of the volcanoes on the world map. Indicate each volcano with the letter V inside a circle.
3. Use a third pencil to lightly shade the areas in which earthquakes are found.
4. Use a fourth colored pencil to lightly shade the areas in which volcanoes are found.

Analyze and Conclude

Write your answers on a separate sheet of paper.

1. How are earthquakes distributed on the map? Are they scattered evenly or concentrated in zones?
2. How are volcanoes distributed? Are they scattered evenly or concentrated in zones?
3. From your data, what can you infer about the relationship between earthquakes and volcanoes?
4. Suppose you added the locations of additional earthquakes and volcanoes to your map. Would the overall pattern of earthquakes and volcanoes change? Explain in writing why you think the pattern would or would not change.

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Earthquakes		Volcanoes	
Longitude	Latitude	Longitude	Latitude
120° W	40° N	150° W	60° N
110° E	5° S	70° W	35° S
77° W	4° S	120° W	45° N
88° E	23° N	61° W	15° N
121° E	14° S	105° W	20° N
34° E	7° N	75° W	0°
74° W	44° N	122° W	40° N
70° W	30° S	30° E	40° N
10° E	45° N	60° E	30° N
85° W	13° N	160° E	55° N
125° E	23° N	37° E	3° S
30° E	35° N	145° E	40° N
140° E	35° N	120° E	10° S
12° E	46° N	14° E	41° N
75° E	28° N	105° E	5° S
150° W	61° N	35° E	15° N
68° W	47° S	70° W	30° S
175° E	41° S	175° E	39° S
121° E	17° N	123° E	38° N

More to Explore

On a map of the United States, locate active volcanoes and areas of earthquake activity. Determine the distance from your home to the nearest active volcano.



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Mapping Earthquakes and Volcanoes (continued)

