

## Lesson 6: Plotting Volcanoes

**Purpose:** To plot volcanoes on our maps, look for patterns, and infer what the volcanoes' locations tell us about earth's interior.

**Guiding Questions:**

- How does the pattern of volcanoes compare to other patterns we have observed?
- How do the volcanoes' locations help scientists study earth's interior?

**Instructions:** Plot the following volcanoes on your large, laminated maps. Use the orange stickers. Label each sticker with the corresponding number on the table below. Replicate the large map onto your personal map (handout 65).

*Table 1 Longitude and Latitude of 20 Volcanic Eruptions*

Volcano Number	Latitude	Longitude
1	1.5° S	29.2° E
2	2.9° S	38.1° E
3	13.2° N	123.8° E
4	19.3° N	155.5° W
5	0.2° S	77.5° W
6	16.2° S	71.8° W
7	18.1° N	145.8° E
8	70.4° S	168.1° E
9	6.3° S	130.0° E
10	35.4° N	138.2° E
11	63.6° N	18.9° W
12	52.3° S	73.5° W
13	34.1° S	69.9° W
14	38.5° N	28.2° W
15	0.4° N	126.4° E
16	71.0° N	8.1° W
17	13.6° N	40.6° E
18	33.4° N	126.5° E
19	1.3° N	125.0° E
20	8.2° S	118.0° E

**Reflecting.** Answer the following questions.

1. Describe the pattern (if any) of where the volcanoes are found.
2. Does this pattern correlate with any other patterns we've seen? If so, state which other pattern(s) it matches.
3. Offer a hypothesis (a testable statement) that could explain why the volcanoes are found in their locations.
4. How might scientists use the location of the volcanoes to learn about earth's interior?
5. In lesson 5 we learned that the earth's crust (lithosphere) is solid and the asthenosphere is solid, but weaker, bendable rock. Yet, none of it is liquid. Volcanoes are made from molten (liquid) rock erupting through the earth's surface. Where do you think this liquid rock comes from if the upper portions of earth's interior are solid?