

HOME/SCHOOL CONNECTION

Investigation 3: Mapping Earth's Surface

You have been studying two volcanoes, Mount Shasta in California and Mount St. Helens in Washington. Where are other volcanoes in the world?

For this you will need a copy of the world map and data on the locations of active volcanoes.

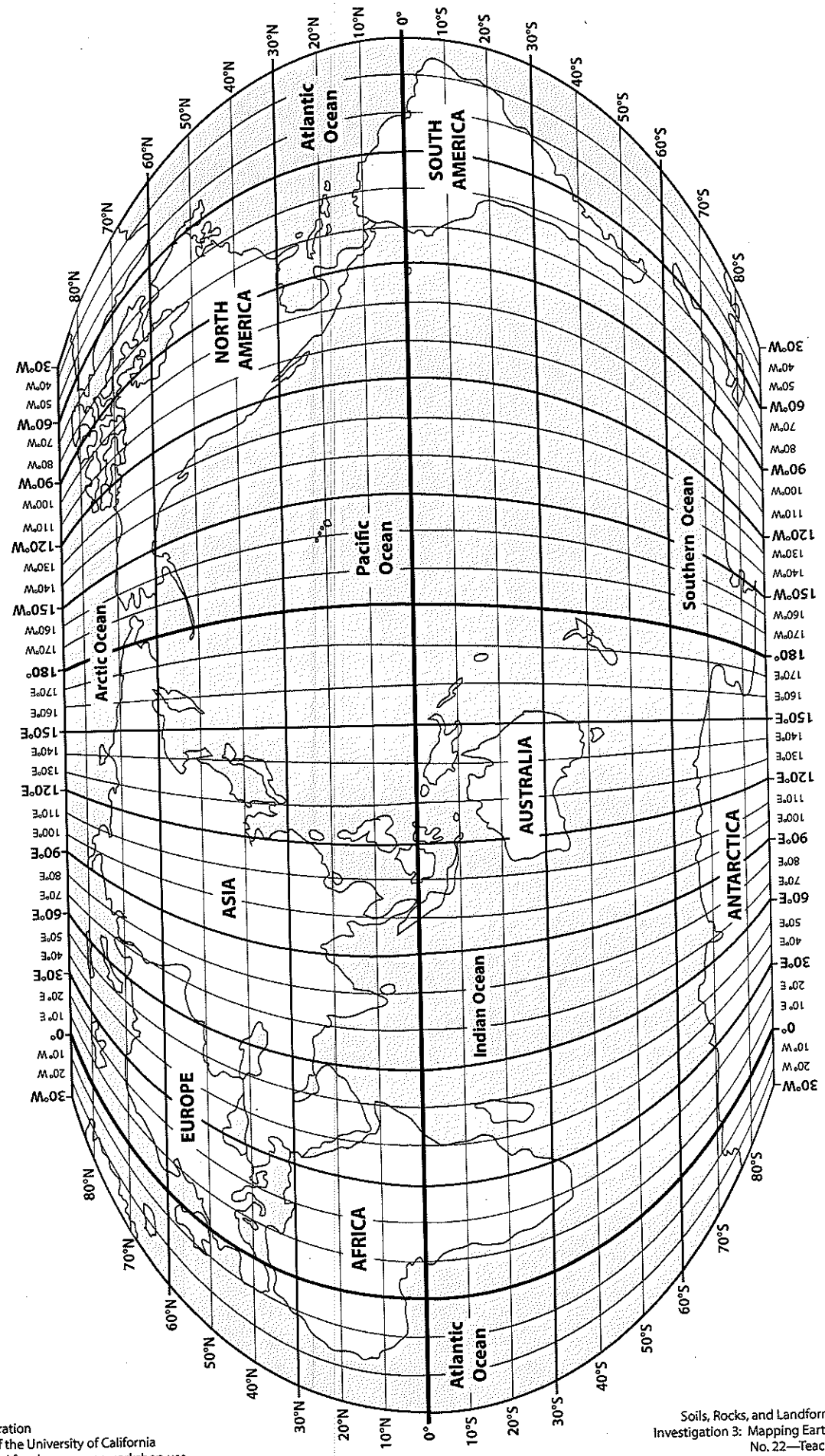
Study the names on the world map provided. Review the names of the continents and the parts of the ocean. Find your home on the map. Look at the **latitude** lines on the map. They are like rungs on a ladder (side to side) and show where the location is north or south of the equator. **Longitude** lines run up and down and show where the location is east or west. Now you are oriented to the map.

Review the list of the 20 volcanoes that are active around the world. Figure out how to plot the location of each of the volcanoes using the longitude and latitude provided.

After mapping the 20 volcanoes, plot the location of the 20 largest earthquakes to shake Earth. Plot those on the map using a different color.

After mapping the volcanoes and earthquakes, look for patterns. Describe in writing the pattern you observe. Write down any questions that you have.

WORLD MAP



20 ACTIVE VOLCANOES AND THE 20 LARGEST EARTHQUAKES

20 Active Volcanoes from around the World

Name	Location	Latitude	Longitude
Etna	Italy	35°N	15°E
El Chichón	Mexico	15°N	95°W
Yasur	Vanuatu	20°S	170°E
Ichinsky	Russia	55°N	160°E
Tinakula	Solomon Islands	10°S	165°E
Erta Ale	Ethiopia	15°N	40°E
Villarrica	Chile	40°S	70°W
Sabancaya	Peru	15°S	70°W
Bagana	Papua New Guinea	5°S	155°E
Mount Agung	Indonesia	10°S	115°E
Mayon	Philippines	15°N	125°E
Dukono	Indonesia	0°	130°E
Tarawera	New Zealand	40°S	175°E
Suwanosejima	Japan	30°N	130°E
Santa María	Guatemala	15°N	90°W
Poás	Costa Rica	10°N	85°W
Sangay	Ecuador	0°	80°W
Erebus	Antarctica	80°S	165°E
Mt. St. Helens	United States	45°N	120°W
Kilauea	Hawaii	20°N	155°W

The 20 Largest Earthquakes to Shake Earth

Magnitude	Location	Date (UTC)	Latitude	Longitude
9.5	Chile	1960	35°S	70°W
9.2	Alaska	1964	60°N	145°W
9.1	Sumatra	2004	5°N	95°E
9.1	Japan	2011	40°N	140°E
9.0	Russia	1952	55°N	160°E
8.8	Chile	2010	35°S	75°W
8.8	Ecuador	1906	0°	80°W
8.7	Alaska	1965	50°N	180°E
8.6	Tibet	1950	30°N	95°E
8.6	Sumatra	2005	0°	95°E
8.6	Indonesia	2005	0°	100°E
8.6	Alaska	1957	50°N	175°W
8.6	Alaska	1946	55°N	165°W
8.5	Banda Sea	1938	5°S	130°E
8.5	Chile	1922	30°S	70°W
8.5	Kuril Islands	1963	45°N	150°E
8.4	Russia	1923	55°N	160°E
8.4	Indonesia	2007	5°S	100°E
8.4	Peru	2001	15°S	75°W
8.4	Japan	1933	40°N	145°E

NOTE: Latitude and longitude data rounded to nearest 5°