

## Lesson 6: Plotting Earthquakes by Depth

**Purpose:** To plot earthquakes by depth and identify any patterns that exist.

**Guiding Questions:** How do scientists learn about earth's interior?

**Instructions:** Plot the following locations on the map on the next page. Use the correct colors as indicated on the table.

Table 1 Earthquake Data

Earthquake Focus*	Distance From Mainland (km)	Depth (km)
Blue	450	25
Blue	520	50
Red	50	650
Red	200	500
Green	320	300
Blue	450	90
Green	450	200
Blue	610	20
Blue	575	80
Green	375	250
Red	100	575
Blue	550	40
Green	425	275
Red	250	425
Green	500	125
Green	375	325
Blue	475	70
Green	310	350
Green	525	175

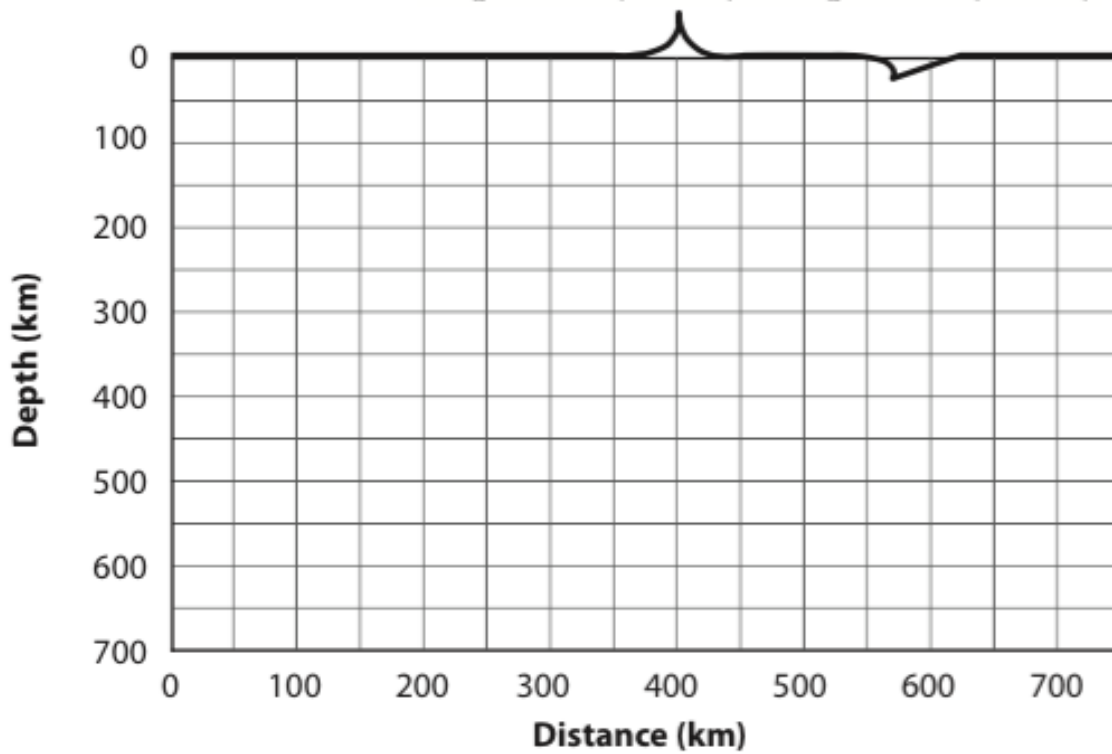
\*Blue = shallow-focus earthquake    Green = medium-focus earthquake

Red = deep-focus earthquake

### Plotting Earthquake Data

Tonga Islands (400 km)

Tonga Trench (575 km)



#### Analyzing.

1. Using a straight line, try to line up the earthquake data points (draw a line of best fit).
2. Write a brief description of what the data reveals. *Don't explain anything. Just write out what the data reveals.*
3. What do you think is causing this line of earthquakes beneath the Tonga Trench?

