Name:	Period:
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## Earthquake Depths

You learned earlier in this chapter that Earth's crust is broken into sections called plates. Movement of these plates generates stress within rocks that must be released. When the rocks pass the *elastic limit*, the release of stress is sudden and the *rocks break*, an earthquake occurs.

**Objectives:** Observe any connection between earthquake-focus depth and epicenter (the point on Earth's surface directly above the focus) location using the data provided below.

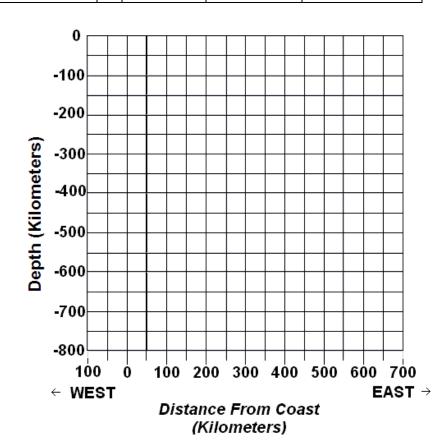
Describe any observed relationship between the earthquake-focus depth and the movement of plates at Earth's surface.

## Data:

Quake	Focus Depth	Distance of Epicenter from	Quake	Focus Depth	Distance of Epicenter from
	(Km)	Coast (Km)		(Km)	Coast (Km)
A	- 55	0	L	-45	95 east
В	-295	100 east	M	-305	495 east
C	-390	455 east	N	-480	285 east
D	-60	75 east	О	-665	545 east
Е	-130	255 east	P	-85	90 west
F	-195	65 east	Q	-525	205 east
G	-695	400 east	R	-85	25 west
Н	-20	40 west	S	-445	595 east
I	-505	695 east	T	-635	665 east
J	-520	390 east	U	-55	95 west
K	-385	335 east	V	-70	100 west

## **Plotting the Data:**

Plot the data in the table above.



		rs and the depth of earthquake foci. (In other words, compare the depth of the earthquakes areas east and west of the coast line?)
2.		the graph create a hypothesis about what is happening to the plates at Earth's surface in the of the plotted earthquake foci? (In other words, what is happening above the foci at the
3.		opinion, what process is causing the earthquakes plotted on your graph? (In other words, going on that is triggering these earthquakes?, support your answer)
4.	edge of t	the data you have plotted from the data table, is the continent located east or west of the the section of Earth's crust? (Hint: think about the density of continental and oceanic plate . 10, explain how you know your answer)
5.		size why none of the plotted earthquakes occurs below 700 km. (Support your answer, a definite answer for why no quakes occur that deep)
6.		n what you have observed and plotted, do all earthquakes occur at the same depth? (You wer "yes" or "no", but you must support your answer)
7.		n what you observed, is there a relationship between earthquake depth and the movement of Earth's crust? (In other words, explain the type of plate boundary and how you know)