

Seafloor Magnetic Stripes Plotting Exercise

Name _____

Procedure:

1. In the lower grid, plot the 20 points listed in the Data Table on the right.
2. In the box above the grid, draw a Geomagnetic Reversal Timescale from the data plotted on the grid. To do this, use the data plotted on the grid to estimate the distances where the magnetic field switched its polarity (hint: every time the VGP latitude crosses 0 is a change in polarity). Shade in periods of Normal Polarity black, and let periods of Reverse Polarity be white. (Note: in the next lecture we will learn that distance corresponds to seafloor age).

Questions:

1. If magnetic reversals are recorded in the seafloor, what kind of rock must the seafloor be made of?
2. What do you notice about the magnetic stripe pattern on each side of the Oceanic Ridge?
3. What does this pattern suggest about how the seafloor forms?

Data Table

Distance from Oceanic Ridge (km)	VGP Latitude (deg.)
-156	82.9
-133	-88.5
-125	-80.5
-109	71.1
-85	-82.9
-76	12.7
-52	38.8
-39	86.9
-19	82.2
-8	60.4
10	58.4
21	84.0
38	87.4
60	40.2
76	9.6
87	-83.2
111	69.7
128	-78.8
136	-87.8
159	81.3

