Plotting the Evidence

Problem:
What is the effect of convection currents on the location of the Earth's lithospheric plates?

Research: Plot the following activities (use blue for A and red B) according to their longitude and latitude coordinates.

Activity A	
50.7 N	175.3 E
6.7 N	126.8 E
10.4 S	118.6 E
58.5 N	153.4 W
71.7 N	2.5 W
62.9 S	158.0 W
33.5 N	22.9 E
53.6 S	140.9 E
44.7 N	9.5 E
39.0 N	74.9 E
13.5 N	125.6 E
40.3 N	29.8 W
0.1 N	66.9 E
25.2 S	17 W

Activity B	
37.7 N	15.0 E
6.1 S	105.4 E
19.5 N	155.3 W
63.1 N	19.4 W
0.90 S	91.42 W
46.20 N	122.18 W
35.3 N	139.0 E
15.2 N	120.2 E

Analysis of Research:

1. Look at the points that you plotted. What do you notice about them? (patterns, where they are located, proximity to each other/land/oceans etc.)

2. Make a hypothesis as to what the "Activity" points that you plotted represent.

Activity A = _____ Activity B = _____

3. Now, get an overlay of the Earth's plates from your teacher. Place it on top of the map you just created by lining up the 2 small "crossed circles" on both sides of the map. Does your hypothesis change? Think about what may be occurring along or near the plate boundaries. Rewrite your guess.

Activity A = _____ Activity B = _____

4. Analyze the location of your plotted points. Are the points that you drew on your map covered up by the boundary lines? If so, why could this be? If not, why wouldn't they don't match up?

5. Now, get a paper copy of the map with plate boundary lines. Use this copy to draw the plate boundary lines onto your map. Be sure to be as accurate as possible. As you finish, label each of the plates. We will be referring back to this map throughout the quarter, so make it neat and legible!

Mercator Projection Map

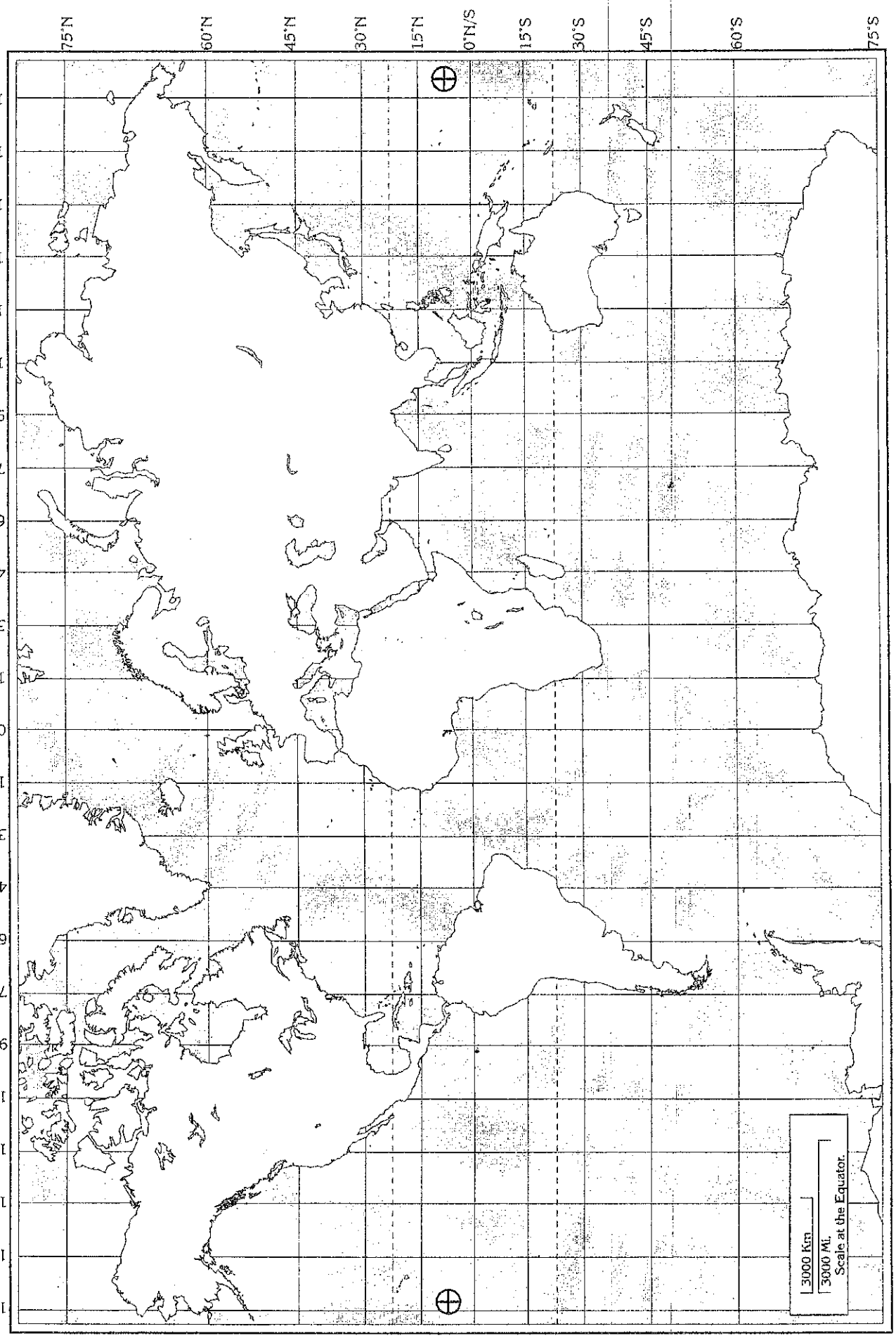

Plate Boundaries