Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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| Latitude and Longitude: Using Surface Ocean Currents E.S.R.T. page 4 and Tectonics Plates, E.S.R.T. page 5 |

Materials: Your E.S.R.T.’s, colored pencils, ruler, and highlighter

**Introduction:** The Earth Science Reference Tables show latitude and longitude of the world on both pages 4 and 5. The map on page 4 shows the surface ocean currents around the world, and in addition has important lines of latitude labeled. The map on page 5 features the different tectonic plates around the world, and also has the latitude and longitude labeled.

1. **Directions:** Using the map on page 4 highlight the following lines of latitude: a) Equator b) Tropic of Cancer and Tropic of Capricorn c) Arctic and Antarctic Circle
2. Using a ruler and a red colored pencil draw in the Prime Meridian line, and also the International Date Line.

* **Check Point**

1. What is the value for the difference between latitude lines? \_\_\_\_\_\_\_\_\_\_\_\_\_
2. What is the highest latitude line shown on the map? \_\_\_\_\_\_\_\_\_
3. What is the tilt of the Earth? \_\_\_\_\_\_\_
4. Find the letter ‘A’ in Asia. What is the latitude and longitude of the letter ‘A’? Don’t forget to label your answer. \_\_\_\_\_\_\_\_\_\_ ° \_\_\_\_ and \_\_\_\_\_\_\_\_\_\_°\_\_\_\_\_\_
5. What continent are you in at 23.5° south and 130° east? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
6. Give the latitude and longitude for the Alaskan Current. \_\_\_\_\_\_\_\_\_° \_\_\_\_\_\_\_\_\_\_°
7. India lies between \_\_\_\_\_\_\_ ° and \_\_\_\_\_\_° latitude, and \_\_\_\_\_\_\_° and \_\_\_\_\_\_\_° longitude.
8. Name a current located on the Prime Meridian in the northern hemisphere. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
9. **Directions:** Using the map on page 5, Tectonic Plates, with a ruler and a red color pencil draw in the equator, prime meridian, and the International Date Line.

* **Check Point**

1. What is the latitude of the Equator? \_\_\_\_\_\_\_\_
2. What is the longitude of the Prime Meridian? \_\_\_\_\_\_\_\_\_
3. What is the longitude of the International Date Line? \_\_\_\_\_\_\_\_
4. What is the value on the map for the difference in latitude line? \_\_\_\_\_\_\_
5. What is the latitude and longitude of the Canary Islands Hot Spot? \_\_\_\_\_\_\_\_ ° \_\_\_\_\_ and \_\_\_\_\_\_\_\_\_ ° \_\_\_\_.
6. What is located at 25° north and 150° west? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
7. What is located at 50° South, and 0°? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
8. The Sandwich Plate lies between \_\_\_\_\_° and \_\_\_\_\_° south, and \_\_\_\_\_ ° and \_\_\_\_\_° west.
9. What is the latitude and longitude for the Iceland Hot Spot? \_\_\_\_ ° \_\_\_\_, and \_\_\_\_° \_\_\_
10. Name the two trenches located on the International Date Line. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
11. What tectonic plate are you on if you are at 30° north and 40° east? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
12. What is the altitude of Polaris for the Yellowstone Hot Spot? \_\_\_\_\_\_\_\_\_
13. If you are on the Mid Atlantic Ridge at 0° latitude and it is 2:00 p.m., what time is it on the Mid Atlantic Ridge at 30° south? \_\_\_\_\_\_\_\_\_\_\_\_\_
14. How many degrees of longitude apart is it from the Juan De Fuca plate to the Iceland hot spot? \_\_\_\_\_\_\_ using this answer if it is 10:00 a.m. on the Juan De Fuca plate, what time is it in Iceland? \_\_\_\_\_\_\_\_\_