**Name:**

**Date:**

**Instructor:**

**Course:**

1. What is the plate tectonic theory? Explain the types of plate boundaries, and provide 1 example for each type of plate boundary.
2. Visit the USGS Advanced National Seismic Station (ANSS) list of ANSS stations at: <https://earthquake.usgs.gov/monitoring/operations/network.php?virtual_network=ANSS>. Identify the station closest to where you live. You can use the “Ctrl + F” command to search for a state name if you do not want to scroll through the whole list. Remember though, that a station in a bordering state may be physically closest to you.

Provide the following:

|  |  |
| --- | --- |
| Name of station |  |
| ANSS designation |  |
| Latitude and longitude |  |
| Elevation (meters) |  |
| Distance from you (in miles) |  |
| Date station commenced operation (year, day of year) |  |

1. Now visit the USGA Earthquake Fault Map at: <https://earthquake.usgs.gov/hazards/qfaults/map/#qfaults>. Find the approximate location of your ANSS station on the map. Click on a colored line closest to your station (this is a fault). A pop-up window should appear. Use it to provide the following information:

|  |  |
| --- | --- |
| Name of the fault |  |
| Age of the fault |  |
| Slip rate (this is how fast one side of the fault moves past the other) |  |

1. How do geologists determine the age of a fault line? What types of evidence specifically are used?
2. Now, visit the National Geographic MapMaker Interactive Plate Tectonic map at: <http://mapmaker.nationalgeographic.org/3HAuN6mlVI6HWdsaiPJ8Z/>. Be sure you are on the “Plate Tectonics” map. Provide the following:

|  |  |
| --- | --- |
| Name of the plate on which you live |  |
| Closest neighboring plate(s) to you |  |

1. Lastly, use the interactive map found here: <https://www.learner.org/interactives/dynamicearth/plate.html>. Use the map identify the type of plate boundaries that are present between your plate and the closest neighbor(s) you identified.