

Name _____

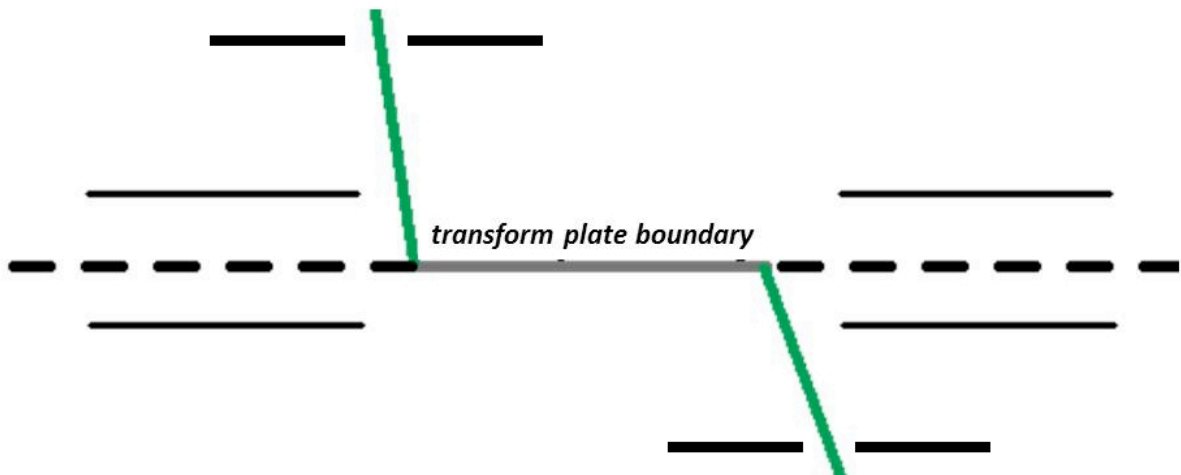
Investigation 5: What happens when plates move sideways past each other? Investigation Sheet

Answer the questions below in complete sentences.

1. What type of plate boundary separates mid-ocean ridge segments and is parallel (in the same direction) to the Charlie-Gibbs Fracture zone?
2. What type of plate boundary is perpendicular (in the opposite direction) to the Charlie-Gibbs Fracture zone?
3. What is the magnitude of the earthquake you clicked on?
4. Do you think earthquakes on oceanic transform boundaries, such as the Charlie-Gibbs Fracture zone, pose a major threat to cities?

Why?

5. Show how the lithosphere moves along each side of the Charlie-Gibbs Fracture zone outside of the divergent boundaries by labeling the top and bottom lines with arrowheads.



6. How does the lithosphere move at the divergent boundaries along the Charlie-Gibbs Fracture zone?
7. Look at your GIS map and the directional lines you drew immediately north and south of the transform plate boundary at the Charlie-Gibbs fracture zone. How does the lithosphere move at that location? (Does it move in the same or opposite direction?)
8. Describe the location of the transform earthquake epicenters relative to the rest of the Charlie-Gibbs Fracture zone.
9. On the GIS map, there is a purple outline that defines the fracture zone. Is the fracture zone a plate boundary? **Hint:** Click back to the Map Layers tab. Investigate plate names by clicking on arrowheads on opposite sides of the fracture zone.
10. How can you identify the fracture zones in the Atlantic Ocean?
11. Which plate next to the San Andreas Fault Zone is moving the fastest? **Hint:** Click on the map to find out the name of the plates.

