

Transform Plate Boundaries

Name _____ date _____

Background Information: We have learned that earth's crust is broken up into many pieces called plates. Due to convection, the plates are moving causing earthquakes and other features. Could there be any other types of motion? Could the plates slide side by side (not coming together or apart)? If the plates are moving side by side, what types of surface features would be found? In this activity, you will investigate data in order to determine the direction and average rate of movement of neighboring plates (North American and Pacific) at the San Andreas Fault Line.

Objective: Using the provided data (pictures of the San Andreas Fault Line), determine the direction and average rate of movement of the Pacific and North American plates at the San Andreas Fault Line.

Image #1 (northwest is up and 0.9km)

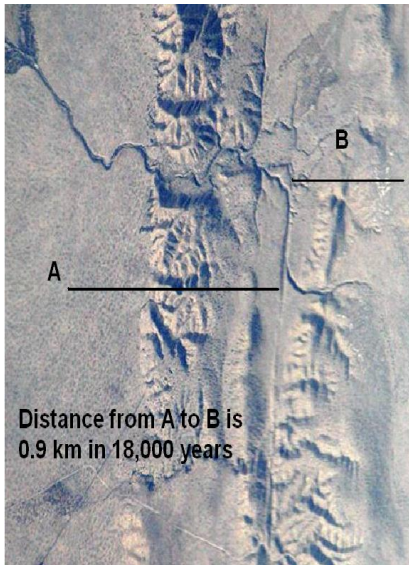


Image #2 (northwest is UP and 1.2km)

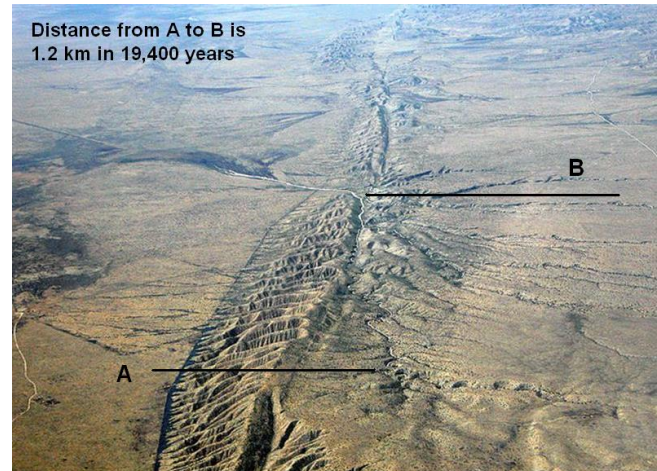


Image #3 (northwest is UP and 0.62km)

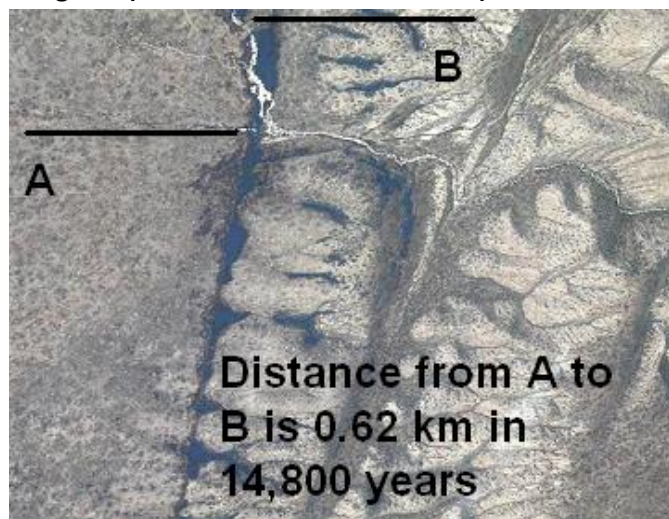


Image #4 (northwest is RIGHT total time is 108 years)

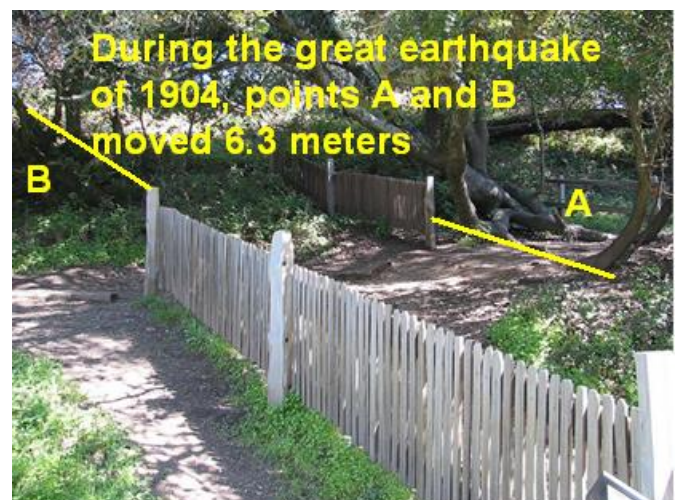
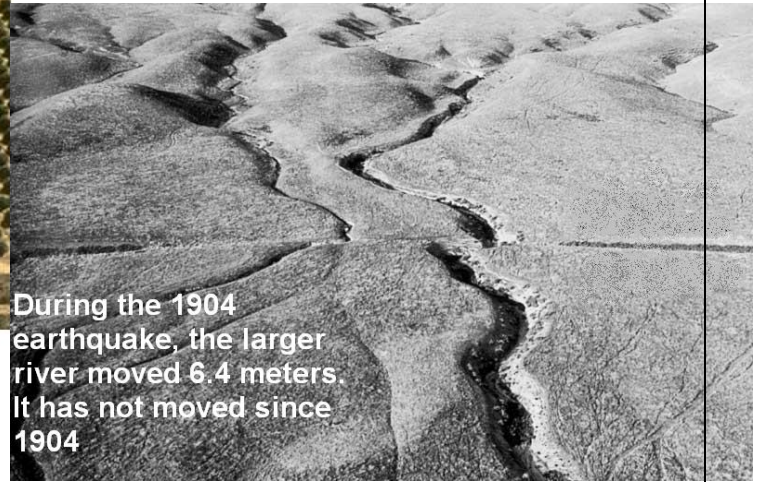


Image #5 (North is UP, 3.14m and total time is 64 years)



The trees above were planted in 1948. In 1986, an earthquake occurred in which they moved 3.14 meters

Image #6 (northwest is LEFT, 6.4m and total time is 108 years)



During the 1904 earthquake, the larger river moved 6.4 meters. It has not moved since 1904

Conclusion: Use the map to the right to determine the relative motion (which direction is the Pacific plate moving?) and average rate of movement of the crustal plates. Which way do you think the North American plate is moving?

Justify your conclusion in a well written paragraph (cite pictures for evidence)



Outcome (what will be graded!):

Your conclusion and data table (justified with evidence from pictures)