Discussion: The Solid Earth

HS Earth Space Sem B

**Discussion Topic**

Earth's surface is broken into large pieces that are slowly shifting. This gradual process, known as plate tectonics, accounts for movement of entire continents over time. During the past century, geologists have found multiple lines of evidence that support the theory of plate tectonics, including the mechanism that drives the plates' motion—sea floor spreading. As a result, sections of Earth's crust are constantly being pulled apart or pushed together. This movement creates many of Earth's landforms, such as mountains, rift valleys, and volcanoes.

According to the theory of plate tectonics, 250 million years ago all of Earth's landmasses were clustered into one supercontinent, known as Pangea.

Based on the past and current movements of Earth's plates, predict how the location of the continents might shift during the next 250 million years.

Do you think they'll spread out, cluster together, or move in a combination of the two?

What types of landforms do you anticipate forming as a result?

What effect, if any, do you anticipate this movement will have on life on Earth?

Some websites that may or may not be helpful:

https://www.learner.org/wp-content/interactive/dynamicearth/tectonicsmap/index.html

https://www.age-of-the-sage.org/tectonic_plates/boundaries_boundary_types.html

https://geo.libretexts.org/Bookshelves/Oceanography/Book%3A_Introduction_to_Oceanography_(Webb)/04%3A_Plate_Tectonics_and_Marine_Geology/4.04%3A_Plates_and_Plate_Motions

https://spotlight.unavco.org/how-gps-works/gps-and-tectonics/gps-and-tectonics.html

https://www.forbes.com/sites/davidbressan/2022/06/09/new-map-shows-earths-tectonic-plates-in-unprecedented-detail/?sh=3f1e91c43d72

https://www.nationalgeographic.com/premium/article/explore-atlas-future-earth-supercontinent-pangaea-proxima?loggedin=true&rnd=1728707994642

https://www.scientificamerican.com/article/pangaea-ultima-the-next-supercontinent-may-doom-mammals-to-far-future-extinction/

https://mymodernmet.com/pangea-proxima-continents/