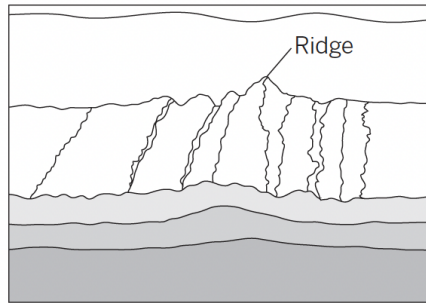


Scientists find a new mid-ocean ridge forming along an underwater mountain range. What can scientists assume based on this finding?



- a. The plates are converging in this area.
- b. Crust is being pushed back down to the mantle here.
- c. New ocean floors have stopped being produced at the ridge.
- d. The crust near the ridge is newer than the crust farther from the ridge.

Jess is explaining to her sister how sedimentary rocks are formed. She explains how sediments undergo cooling to become sedimentary rock.

Her explanation is not correct. How would you change it so it is accurate?

- a. Sediments undergo compaction and cementation to become sedimentary rock.
- b. Sediments undergo cooling and cementation to become sedimentary rock.
- c. Sediments undergo heating and then cooling to become sedimentary rock.
- d. Sediments undergo heat and pressure to become sedimentary rock.



An engineer is designing a new bridge in an area that is likely to experience earthquakes. Before she begins designing the bridge, she does research on how earthquakes have impacted bridges in this area in the past, and different types of materials for the bridge. The engineer decides to design a prototype with some ideas in mind: keeping costs of materials low, and allowing the least amount of damage possible during an earthquake.

Which of the following components of her plan describes the criteria? Select **all** that apply.

- a. Research on earthquakes
- b. Keeping costs low
- c. Testing the prototype
- d. Allowing the least amount of damage possible