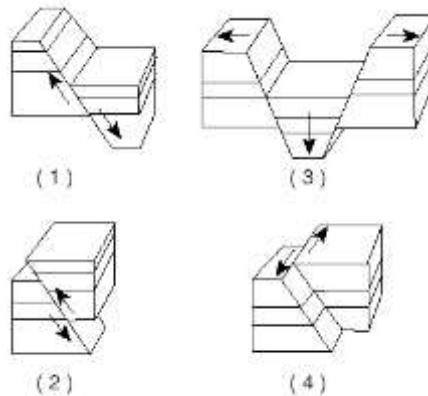


PLATE TECTONICS REVIEW

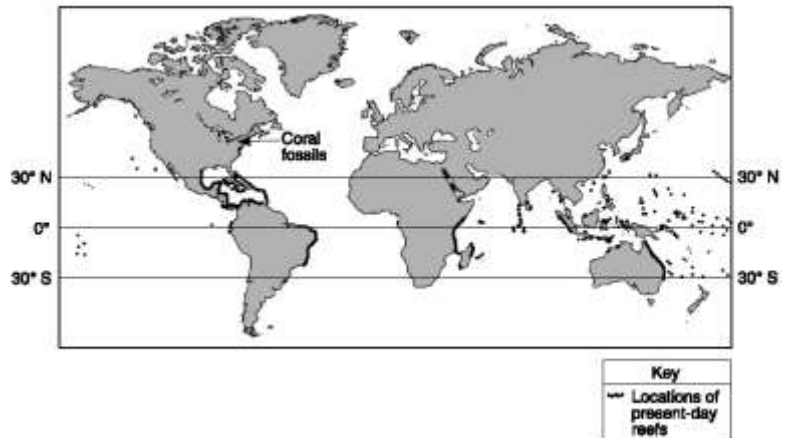
- Active volcanoes and large earthquakes are most abundant along the
 - edges of tectonic plates
 - 23.5° N and 23.5° S parallels of latitude
 - eastern coastline of continents
 - equatorial ocean floor
- At which plate boundary is one lithospheric plate sliding under another?
 - Nazca Plate and Antarctic Plate
 - Pacific Plate and Indian-Australian Plate
 - Indian-Australian Plate and Antarctic Plate
 - Nazca Plate and Pacific Plate

- Which block diagram best shows a transform fault?



- Which statement best supports the theory that all the continents were once a single landmass?
 - marine fossils can be found at high elevations above sea level on all continents
 - fossil and rock evidence match where the continents appear to fit together
 - rocks of the ocean ridges are older than those of the adjacent sea floor
 - great thicknesses of shallow-water sediments are found at interior locations on some continents

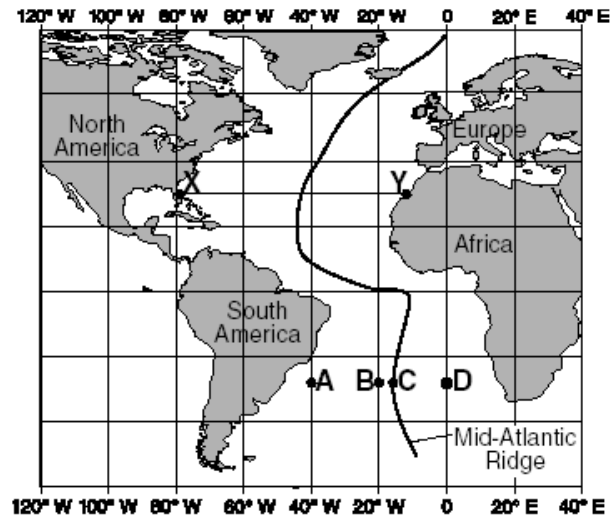
- On the map, the darkened areas represent locations where living corals currently exist. The arrow points to a location where coral fossils have been found in Devonian-age bedrock in New York State.



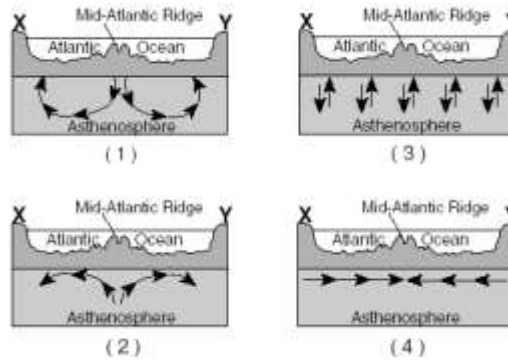
Devonian-age coral fossils found in some New York State bedrock are *not* located in the same general region that present-day corals are living because during the Devonian Period

- corals migrated to New York State
- corals lived everywhere on Earth
- New York State was closer to the equator
- New York State had a colder climate

Base your answers to **questions 6-7** on the map of the Mid-Atlantic Ridge shown below. Points *A* through *D* are locations on the ocean floor. Line *XY* connects locations in North America and Africa.



6. In which cross section do the arrows best show the convection occurring within the asthenosphere beneath line *XY*?



7. Samples of ocean-floor bedrock were collected at points *A*, *B*, *C*, and *D*. Which sequence shows the correct order of the age of the bedrock from oldest to youngest?

- (1) $D \rightarrow C \rightarrow B \rightarrow A$ (3) $C \rightarrow B \rightarrow D \rightarrow A$
 (2) $A \rightarrow D \rightarrow B \rightarrow C$ (4) $A \rightarrow B \rightarrow D \rightarrow C$

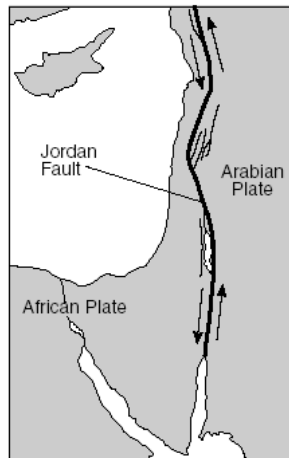
8. Which two tectonic plates are separated by a mid-ocean ridge?

- (1) Indian-Australian and Eurasian (3) North American and South American
 (2) Indian-Australian and Pacific (4) North American and Eurasian

9. Why does the oceanic crust sink beneath the continental crust at a subduction boundary?

- (1) The oceanic crust has a greater density.
 (2) The oceanic crust is pulled downward by Earth's magnetic field.
 (3) The continental crust has a more mafic composition.
 (4) The continental crust is pulled upward by the Moon's gravity.

10. The map below shows the northern section of the boundary between the Arabian Plate and the African Plate. Arrows show the relative direction of plate motion.

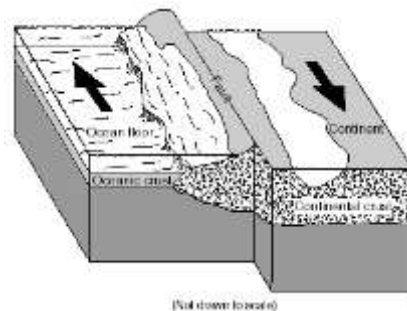


Which type of plate boundary is located at the Jordan Fault?

- (1) divergent
 - (2) subduction
 - (3) convergent
 - (4) transform
11. The movement of tectonic plates is inferred by many scientists to be driven by
- (1) tidal motions in the hydrosphere
 - (2) density differences in the troposphere
 - (3) convection currents in the asthenosphere
 - (4) solidification in the lithosphere
12. Which coastal area is most likely to experience a severe earthquake?
- (1) east coast of North America
 - (2) east coast of Australia
 - (3) west coast of Africa
 - (4) west coast of South America
13. Arrows in the block diagram below show the relative movement along a tectonic plate boundary.

Between which two tectonic plates does this type of plate boundary exist?

- (1) Nazca Plate and South American Plate
- (2) Eurasian Plate and Indian-Australian Plate
- (3) North American Plate and Eurasian Plate
- (4) Pacific Plate and North American Plate

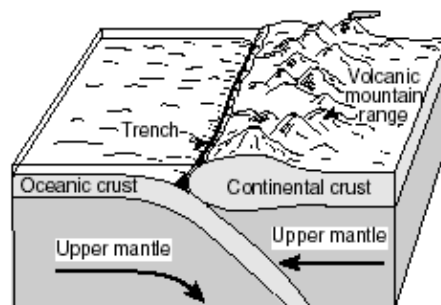


14. According to tectonic plate maps, New York State is presently located
- (1) at a convergent plate boundary
 - (2) above a mantle hot spot
 - (3) above a mid-ocean ridge
 - (4) near the center of a large plate

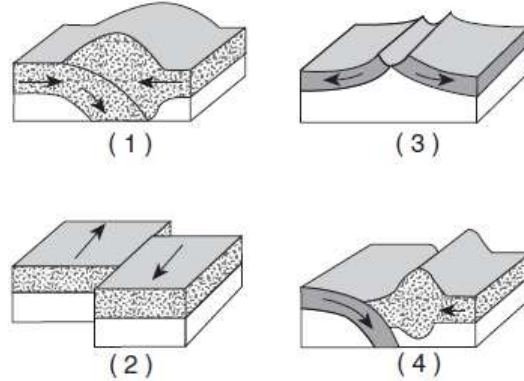
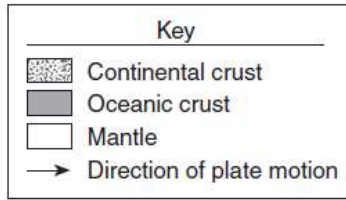
15. The diagram below shows the interaction of two tectonic plates.

The type of plate boundary represented in the diagram most likely exists between the

- (1) Antarctic Plate and the African Plate
- (2) Antarctic Plate and the Indian-Australian Plate
- (3) South American Plate and the Nazca Plate
- (4) South American Plate and the African Plate

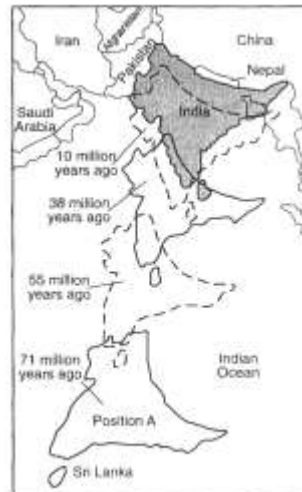


16. Which cross section below best represents the crustal plate motion that is the primary cause of the volcanoes found at mid-ocean ridges?



17. The Mariana Trench was most likely created by the
- (1) convergence of the Pacific and Philippine Plates
 - (2) divergence of the Eurasian and Philippine Plates
 - (3) sliding of the Pacific Plate past the North American Plate
 - (4) movement of the Pacific Plate over the Hawaii Hot Spot

The map to the right represents the movement of tectonic plates that resulted in the collision of India with Asia. Scientists believe that 71 million years ago, India was at position A.



18. Which present-day geologic feature in Nepal resulted from this collision?
- (1) a large transform fault
 - (2) an oceanic ridge
 - (3) a rift valley
 - (4) a mountain range

19. The Indian-Australian tectonic plate is moving
- | | |
|------------------------------------|--------------------------------|
| (1) away from the Philippine Plate | (3) away from the Fiji Plate |
| (2) toward the Pacific Plate | (4) toward the Antarctic Plate |

20. As the distance from a mid-ocean ridge increases, the age of rock in the ocean crust
- (1) increases
 - (2) decreases
 - (3) remains the same