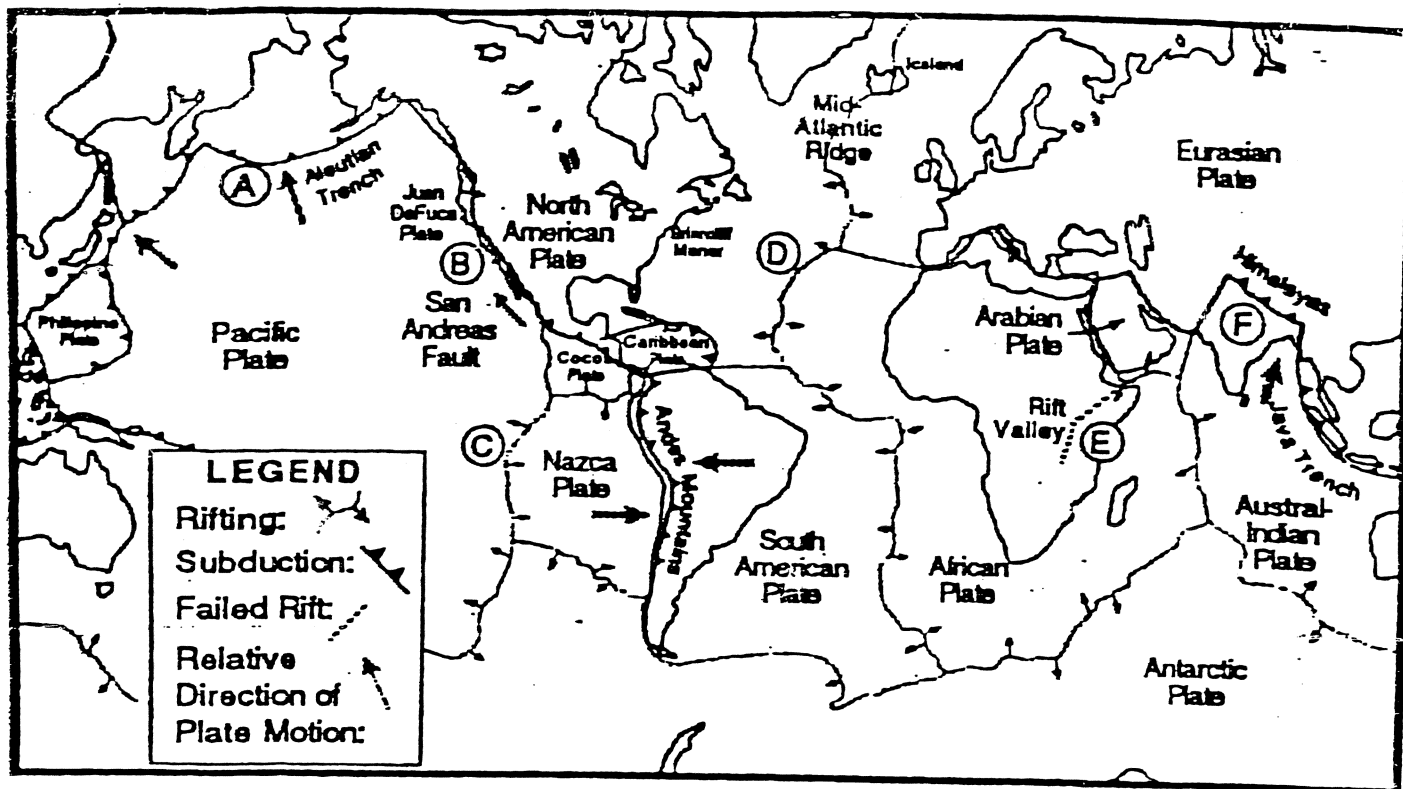


This map is a modern interpretation of the relative motions at Earth's plates.



Earth's Major Crustal Plates

1. Label each of the lettered plate boundaries on the map above according to the relative motion that is occurring there: Rift, Subduction, Transform or Inactive. (See the map key for symbols.)

- A. Subduction      B. Transform      C. Subduction  
 D. Rift      E. Inactive      F. Subduction

2. Which type of plate boundary creates new crust?

Rift

3. What kind of crust is nearly always created at a rift zone? (Circle one.)

Continental or Oceanic

4. Which kind of plate boundary destroys part of the crust?

Subduction

5. Which kind of crust is usually destroyed in subduction?

Oceanic

6. Which kind of boundary has many earthquakes, but neither creates nor destroys the crust?

Transform

7. According to the map above, the Pacific Plate is moving toward the...

NW

8. According to the Reference Tables (page 5), on which plate is India?

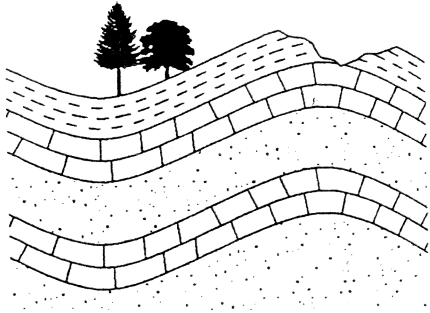
Austral-Indian Plate

9. The idea that the Earth's surface is composed of a number of rigid pieces that can slide apart, together and past one another is known today as the theory of

Plate Tectonics

Name \_\_\_\_\_

1. The diagram below shows a cross section of sedimentary rock layers.



Which statement about the deposition of the sediments best explains why these layers have the curved shape shown?

- (1) Sediments were deposited in horizontal layers and later disturbed by crustal activity.
  - (2) Sediments were deposited on an uneven curving seafloor.
  - (3) Sediments were deposited after widespread volcanic eruptions.
  - (4) Sediments were deposited between two diverging oceanic plates.
2. Fossils of marine plants and animals are found in the bedrock of mountains many thousands of feet above sea level. The most likely reason for this observation is that
- (1) the mountains were part of a mid-ocean ridge
  - (2) the ocean level has dropped several thousand feet
  - (3) forces within the Earth caused uplift
  - (4) transported materials were deposited at high elevations

3. Which features are commonly formed at the plate boundaries where continental crust converges with oceanic crust?

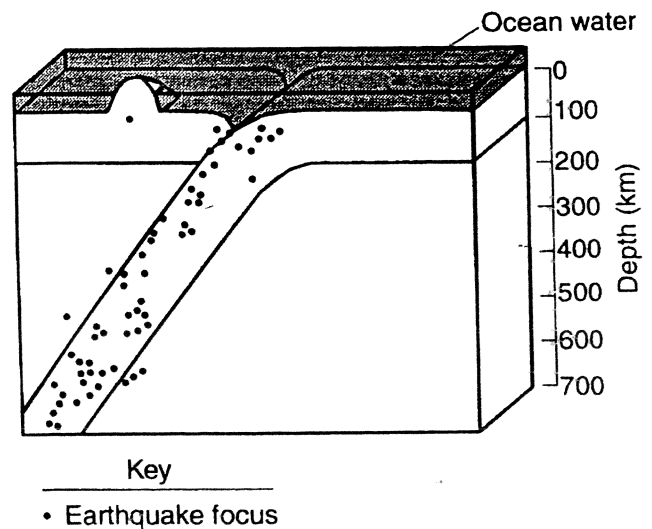
- (1) large volcanic mountain ranges parallel to the coast at the center of the continents
- (2) a deep ocean trench and a continental volcanic mountain range near the coast
- (3) an underwater volcanic mountain range and rift valley on the ocean ridge near the coast
- (4) long chains of mid-ocean volcanic islands perpendicular to the coast

4. Base your answer to the following question on the *Earth Science Reference Tables*.

The continent of Iceland would be closest to the

- (1) Mid-Atlantic Ridge
- (2) Mid-Indian Ridge
- (3) South-East Indian Ridge
- (4) East Pacific Ridge

5. The cross section below shows the location of earthquakes near a plate boundary.



This distribution of earthquakes near the plate boundary is most likely caused by

- (1) a transform fault
- (2) a mantle hot spot
- (3) subduction of a crustal plate
- (4) divergence of crustal plates