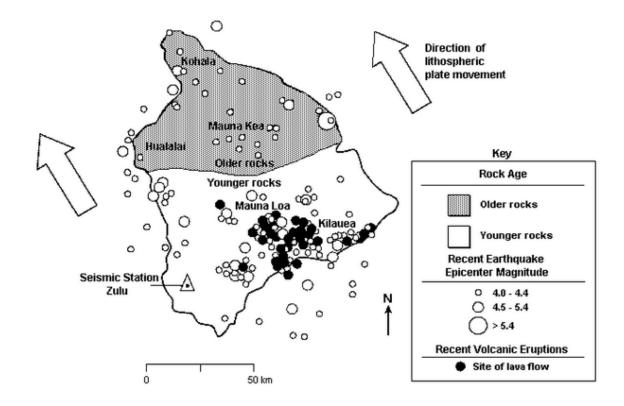
Review Selection #4: Plate Boundaries

1. The map shows the island of Hawaii (approximately 20° N 157° W) and the locations of recent volcanic eruptions and earthquake epicenters. The volcanic eruptions are inferred to be caused by the movement of the lithospheric plate over a hot spot in the mantle below.



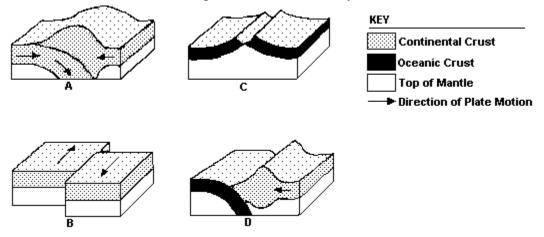
A scientist wants to film underwater volcanic activity that is forming a new island in the Hawaiian Island chain. In which direction from Hawaii should she concentrate her efforts?

1) northeast 2) northwest 3) southeast 4) southwest

2. Convection currents in the plastic mantle are believed to cause divergence of lithospheric plates at the

- 1) Peru-Chile Trench
- 2) Mariana Trench
- 3) Canary Islands Hot Spot
- 4) Iceland Hot Spot

3. The diagrams represent four kinds of plate movements that occur in Earth's crust. The arrows show the relative motions of the crustal plates at each boundary.



At present, the western part of California is moving northward relative to the rest of the state. Which diagram best represents this kind of plate boundary?

- 1) A 2) B 3) C 4) D
- 4. Seafloor spreading is occurring at the boundary between the
 - 1) North American Plate and the Pacific Plate
 - 2) Nazca Plate and South American Plate
 - 3) Indian-Australian Plate and the Antarctic Plate
 - 4) Indian-Australian Plate and Eurasian Plate
- 5. Which geologic feature is located at 20°N, 158°W?