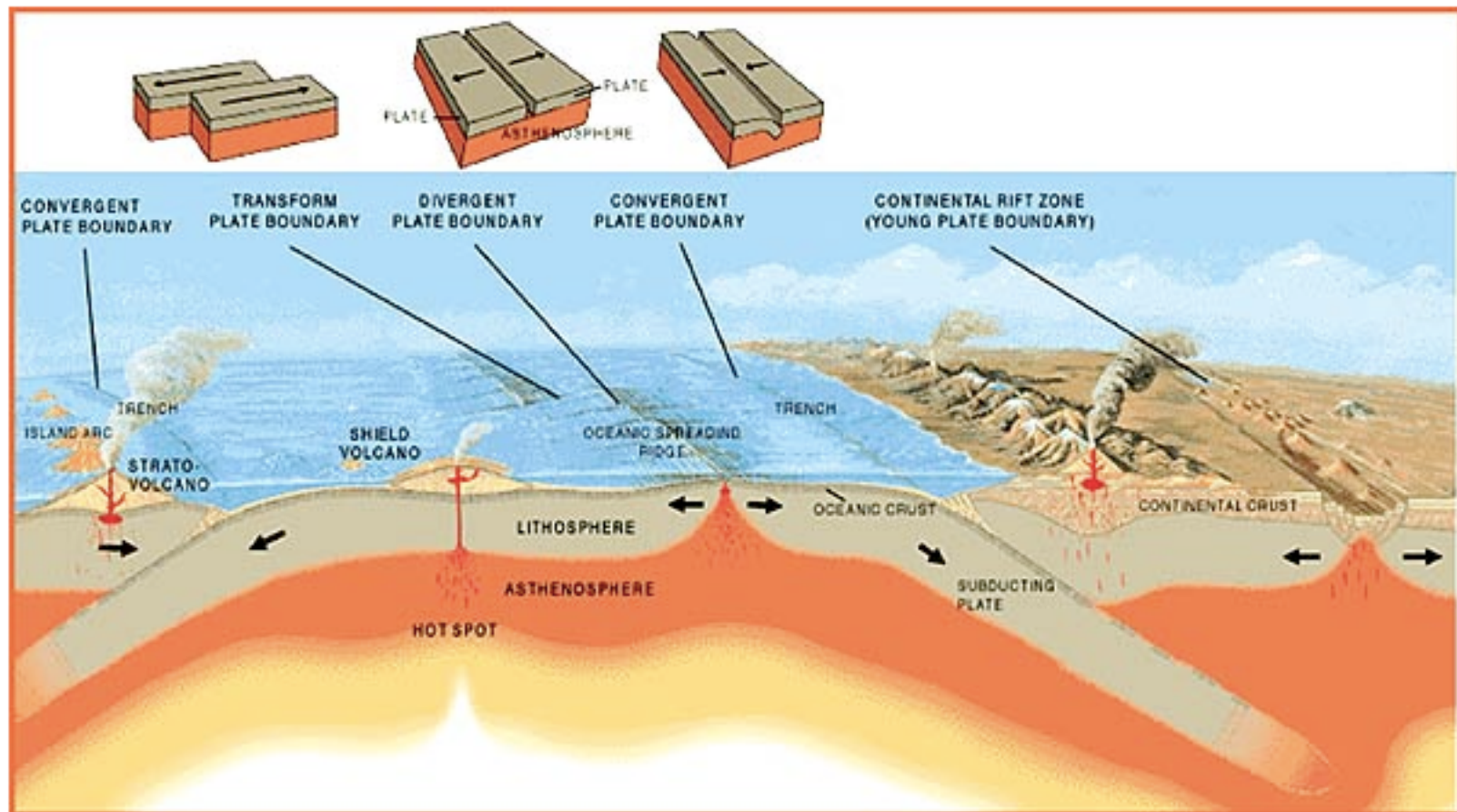




Most submarine volcanoes occur where tectonic plates are either moving apart or colliding. This image shows the many types of plate boundaries: convergent, transform, divergent, and continental rift zone. The Explorer Ridge is a divergent plate boundary at an ocean spreading ridge in the eastern Pacific, where new oceanic crust is formed. The Mariana Island Arc, on the other end of the conveyor belt in the western Pacific, was formed by the melting of the subducting Pacific Plate. (Image courtesy of [USGS website](#). Cross section by Jose F. Vigil from *This Dynamic Planet*.)