| In the 1910s, Wegener begins his pursuit of finding evidence to support his theory about moving continents. |
| Wegener’s continental drift theory is rejected by the scientific community. |
| The seafloor is explored and surveyed extensively during the 1940s and 1950s. A continuous underwater mountain range is discovered. This global mid-ocean ridge is over 50,000 km long, making it the longest mountain range in the world. It practically circles the entire Earth. |
| In the early 1960s, Harry Hess and Robert Dietz propose seafloor spreading. Hess believes molten rock rises from the mantle along the mid-ocean ridges, forcing the crust to move in opposite directions and creating a new seafloor in the process. |
| Hess also believes that crust is being destroyed as it sinks into deep ocean trenches in a process called subduction. |
| Based upon the discovery of seafloor spreading and subduction of ocean crust, a new and more encompassing theory is proposed—plate tectonic theory. |
| The plate tectonic theory differs from continental drift. Plate tectonic theory states that the entire crust moves, not just the continents. |
| In 1963, Vines, Matthews, and Morley identify alternating bands of magnetized rock on both sides of the mid-ocean ridges. |
| These alternating bands in the rock have symmetrical patterns and provide strong evidence to support seafloor spreading. |
| In 1968, the expedition vessel Glomar Challenger samples the age of rocks in the Atlantic ocean. The samples show that younger rocks are located along the ridges and the oldest rocks are located near or along the continental edge. This provides nearly conclusive evidence of seafloor spreading. |