The lithosphere or outer strong shell of the earth is some 75-100 km thick as determined seismically and thermally. It overlies the asthenosphere or weaker shell of the earth characterized by plastic flowage and the so-called Gutenberg seismic low velocity zone. The upper part of the lithosphere is called the crust which is 5-6 km thick beneath the oceans and 20-50 km thick beneath the continents. Differences between the thickness and physical properties of the oceanic and continental lithospheres are not yet clearly known. Flexural studies of the lithospheric plates based on the elastic response to loads indicate their elastic thickness is about 40-45 km. Thermal studies confirm that sea floor depths increase as the lithospheric plates contract with age as the plate spreads outward from such spreading centers as the Mid-Atlantic Ridge and East Pacific Rise. Global tectonic patterns indicate the lithosphere is broken into about eleven (11) major plates which are constantly in motion, being formed by magma injection at spreading centers from which they move outward in the process called sea floor spreading. Some plates are consumed by subduction at active margins, a process by which the plates plunge into the earth's interior causing oceanic trenches, earthquakes and volcanism. At passive margins, the continents and oceanic plates move together without subduction. The electrical structure of the lithosphere is almost unknown. The shallow oceanic crust is fairly conductive, i.e., $10^{-2}$-$10^{-3}$ Siemens/m. The lower crust, which is less fractured, may be more resistive than the shallow crust, as may be other parts of the lithosphere. A conductivity increase has been reported at about 70-75 km. This paper is to put the physical properties of the lithosphere into perspective and to emphasize those areas which need further study.