**9.3 – Ocean Shoreline**

**Waves, tides and currents cause shorelines to change constantly.**

**Shoreline Forces**

**Three major forces at work on the shoreline are waves, tides and currents.**

**Waves – crash against the shoreline and are a powerful force. They can erode and move large amounts of material in a short time.**

**Longshore Current**

**– Occurs when water that runs parallel to the shore collides with the shore at slight angles.**

**- Longshore Currents carry many metric tons of loose sediments and act like rivers of sand in the ocean**

**Tides**

* **Create currents that move at right angles to the shore**
* **Sediment is moved through tides**
* **Tides work with waves to create shorelines**

**Rocky Shorelines**

* **Rocks and cliffs are most common.**

**Sandy Beaches**

* **Beach – deposits of sediment that are parallel to the shore**
* **Made of different materials**
* **Hawaii – black sands – basalt**
* **Green sands – olivine**
* **Jamaica – white sands – coral and shell fragments**

**Barrier Islands – made of sand and are parallel to the shore, but are separated from the mainland**