**Big Idea**

**Waves, Currents, and Tides**.

**S6E3. Obtain, evaluate, and communicate information to recognize the significant role of water in Earth processes.**

d.  Analyze and interpret data to create graphic representations of the causes and effects of waves, currents, and tides in Earth’s systems

**WAVES**

* caused by wind transferring energy to the water
* Move up and down
* Four main parts- crest, trough, wave height and wave length
* Tsunamis-caused by undersea volcanoes, undersea earth quakes and landslides

**CURRENTS**

* Carry
* Surface currents: caused by prevailing winds, coriolis effect

Surface currents affect climate

* Deep water currents: caused by changes in temperature and salinity

Global conveyor belt moves water all over the Earth.

**TIDES**

* Caused by gravitational pull of moon, sun.
* Moon, sun, and Earth aligned at right angle= Neap tide- smallest range
* Moon, Sun, Earth aligned straight angle= Spring tide- Largest range