**Unit Review: Oceans**

**Earth Science, Mr. Lanik**

Ocean Literacy:

* Know and be able to explain the Seven Principles of Ocean Literacy
* Be able to provide an example of each of the Seven Principles
* Be able to describe how the ocean is an example of an “interconnected circulation system”
* Provide several examples that describe the important roles that the ocean plays in making the Earth habitable.

Ocean Zones:

* Recognize that ocean scientists use different methods of classifying the regions of the ocean: depth, temperature and pressure, ocean layers, amount of sunlight, types of sea life and life zones
* Understand the concept of ocean “productivity”, and how the physical characteristics of different ocean zones determine that productivity

Mapping:

* Know the difference between latitude and longitude
* Be able to plot points on a world map, given coordinates of latitude and longitude

Buoyancy, Temperature, Salinity, Density:

* Be able to define what density is, and to be able to calculate the density of a substance mathematically
* Describe what salinity is
* Describe how ocean salinity determines the buoyancy of the water
* Describe how ocean temperatures influence the buoyancy of the water
* Recognize that water divides itself into distinct units based on temperature and/or salinity
* Know that ocean currents are often the result of differences in water temperature and salinity

Giant Ocean Conveyor Belt:

* Use the idea of a “giant conveyor belt” to describe the movement of ocean currents around the entire Earth
* List the causes of ocean water movement
* Explain the scientific causes of ocean water movement