# Vocabulary

* **Biome** – A major ecological community, classified according to the predominant vegetation and characterized by adaptations of organisms to that particular environment. For example, the world can be divided into at least five major biomes: aquatic, deserts, forests, grasslands and tundra.
* **Ecosystem** - a dynamic complex of plant, animal and micro-organism communities and their non-living environment, interacting as a functional, interdependent system
* **Polar Ocean** - There are two oceans in Earth's polar regions: The Arctic Ocean and Southern Ocean. The oceans that are in the polar regions are a bit different from other oceans on Earth. There is often sea ice at their surface, especially during the winter months. And those chilly waters are home to some unique marine life. Seawater from polar regions can be more dense than seawater from other places. This is because seawater in the polar oceans is cold, and this increases its density. It can also become saltier than other seawater during the winter. When sea ice freezes at the ocean surface removing some of the freshwater to make the ice, which concentrates the salts.
* **Temperate Ocean** - Temperate oceans are located from the Arctic Circle to the Tropic of Cancer and from the Tropic of Capricorn to the Antarctic Circle. Plants in the temperate oceans include seaweed, kelp, sea grasses, algae, and phytoplankton.
* **Tropical Ocean** - Tropical oceans encircle Earth in an equatorial band between the Tropic of Cancer (23.5° North latitude) and the Tropic of Capricorn (23.5° South latitude). The central portions of the Pacific and Atlantic Oceans and most of the Indian Ocean lie in the tropics. The warm tropical oceans play a critical role in regulating Earth's climate and large-scale weather patterns. Much of the planet's biological diversity resides in the tropics, and the global distribution of species and ecosystems depends on oceanographic and atmospheric processes that occur in the equatorial oceans.
* **Kelp forest** - Kelp forests occur in cold, nutrient-rich water and are among the most beautiful and biologically productive habitats in the marine environment. They are found throughout the world in shallow open coastal waters, and the larger forests are restricted to temperatures less than 20ºC, extending to both the Arctic and Antarctic Circles. A dependence upon light for photosynthesis restricts them to clear shallow water and they are rarely much deeper than 15-40m. The kelps have in common a capacity for some of the most remarkable growth rates in the plant kingdom. In southern California, the kelp can grow 30 cm per day.
* [*http://aquarium.ucsd.edu/Education/Learning\_Resources/Voyager\_for\_Kids/*](http://aquarium.ucsd.edu/Education/Learning_Resources/Voyager_for_Kids/) *kelpvoyager/forests2.html*
* **Coral reef** - Coral reefs are structures produced by living organisms, found in marine waters containing few nutrients. In most reefs, the predominant organisms are stony corals that secrete an exoskeleton of calcium carbonate. The accumulation of skeletal material, broken and piled up over time, produces a formation that supports the living corals and a great variety of other animal and plant life. Coral reefs most commonly live in tropical waters, but deep water and cold water corals exist on a much smaller scale.
* [*http://oceanservice.noaa.gov/education/kits/corals/media/supp\_coral05a.html*](http://oceanservice.noaa.gov/education/kits/corals/media/supp_coral05a.html)
* **Hydrothermal vent** - A hydrothermal vent is a fissure in the Earth’s surface from which geothermally heated water issues. Hydrothermal vents are commonly found near volcanically active places, areas where tectonic plates are moving apart, ocean basins, and hotspots. Under the sea, hydrothermal vents may form features called black smokers. Relative to the majority of the deep sea, the areas around submarine hydrothermal vents are biologically more productive, often hosting complex communities fueled by the chemicals dissolved in the vent fluids. Chemosynthetic organisms form the base of the food chain, supporting diverse organisms, including giant tubeworms, clams, limpets and shrimp.
* [*http://www.noc.soton.ac.uk/chess/education/edu\_htv.php*](http://www.noc.soton.ac.uk/chess/education/edu_htv.php)
* **Mangrove forests**- Mangroves are trees and shrubs that grow in brackish coastal waters in the tropics and subtropics. In these areas, the ecosystems may be called mangrove swamps and mangrove forests. The trees and shrubs that grow in these areas protect the coast from high-energy wave action.
* [*http://www.ecoworld.com/features/2005/04/06/mangroves-stop-tsunami/*](http://www.ecoworld.com/features/2005/04/06/mangroves-stop-tsunami/)
* **Estuaries** - Estuaries are places where freshwater rivers and streams flow into the ocean, mixing with the seawater. A wide variety of birds, fish, and other wildlife make estuaries their home. People also live, fish, swim, and enjoy nature in estuaries and the lands surrounding them.
* [**http://oceanservice.noaa.gov/facts/estuary.html**](http://oceanservice.noaa.gov/facts/estuary.html)