The Major Oceans

- Atlantic, Pacific, Indian and Arctic Oceans.
- Ancient Oceans Iapetus (father of Atlantis), Tethys, Proto-Pacific, proto-Iapetus.
- 2/3 of the planet is covered by water.

Locations of the Major Oceans
The Continental Shelf is made up of continental crust and is alternately inundated or exposed depending on global sea level.

The continental slope connects the continental shelf and the oceanic crust. It begins at the continental shelf break, or where the bottom sharply drops off into a seep slope. It usually begins at 430 feet (130 meters) depth and can be up to 20 km wide. The continental slope, which is still considered part of the continent, together with the continental shelf is called the continental margin.
Past the continental slope, we find the **continental rise**. As currents flow along the continental shelf and down the continental slope, they pick up and carry sediments along and deposit them just below the continental slope. These sediments accumulate (gather) to form the large, gentle slope of the continental rise.

**Abyssal Plains**

- The **abyssal plain** is the flat, deep ocean floor. It is almost featureless because a thick layer of sediment covers the hills and valleys of the ocean floor below it.
Mid-Ocean Ridges

- Huge Global Mountain Chain made up of volcanic edifices.
- They contain a rich marine ecosystem including some rather bizarre life forms that live near deep-sea hydrothermal vents.

Black Smoker Hydrothermal Vents

Black Smokers contain giant clams, tube worms and other exotic life forms that live as long as the black smoker is active.
Nearshore Environments

Intertidal Zone: Covered by the high tide, exposed during low tide. Has a rich ecosystem. Easily damaged.

Tides:

- Tides are caused by the gravitational pull of the Moon, and to a lesser extent by the Sun.
- Highest Tides: Spring tides
- Lowest Tides: Neap tides.