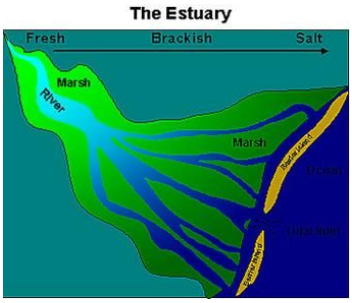
# Estuaries, Ocean Properties and Ocean Currents Notes

**Estuary -** A partially enclosed coastal body of _____water with one or more rivers flowing into it that connects to the _____.

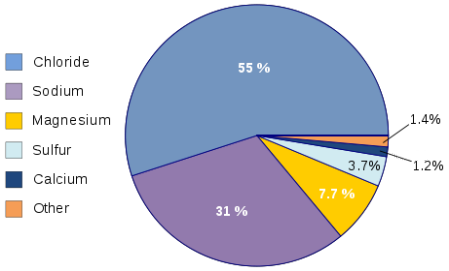



- Brackish water is a mixture of _____.
- The largest estuary in North Carolina is _____.

**Why are Estuaries Important?**

- Estuaries trap _____ traveling from the land by _____ and from the _____ brought in by the _____.
- Estuaries are one of the most diverse and productive _____ in the world.
- Humans harvest _____ from Estuaries.
- Humans rely on Estuaries to _____ the coastline during _____ and to reduce _____ inland.

## Ocean Properties




**Salinity** - The total amount of dissolved _____in a sample of water.

- How much of the water in the Ocean is salt? _____

**Where does the salt come from?**

- _____ Activity and Land _____ add many different _____ to the ocean.
- These minerals are mostly _____ and _____, and when combined make salt!

**Effects of Salinity**

- Salinity _____of water.
  - *Salt water takes _____ to freeze than fresh water!*
- Salinity _____of water
  - *It is easier to _____ in salt water than in fresh water!*

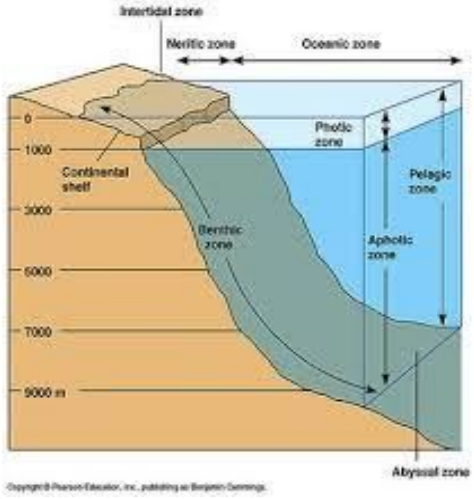
**Dissolved Gases in the Ocean**

- What 2 gases are found in the air AND in the ocean? _____
- *What is the SOURCE of Oxygen in the Ocean?* _____
- *What is the SOURCE of Carbon Dioxide in the Ocean?*_____

**Changes with Depth**

*How do each of the properties change as you go **deeper** in the ocean?*

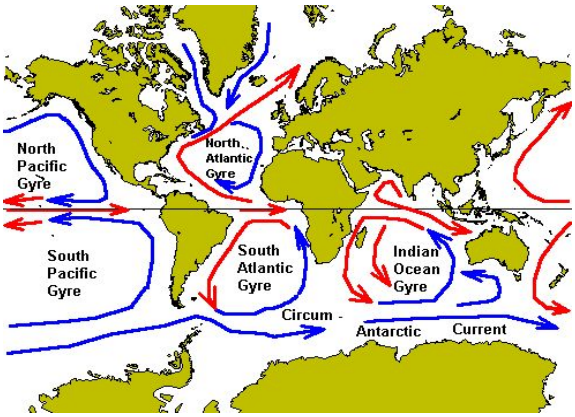
- **Temperature?**
- **Light?**
- **Salinity?**
- **Density?**
- **Pressure?**




## Ocean Currents

**Current** – A large stream of _____ that flows through the oceans.

- 2 Types of Currents:
  - _____ Currents
  - _____Currents




What are the surface currents of the ocean are driven by?

_____

**Ocean Temperatures at the Surface**

- Surface temperatures vary by _____ and season.
- Surface temperature is _____ near the _____ than near the poles.

**How do currents affect the climate?**

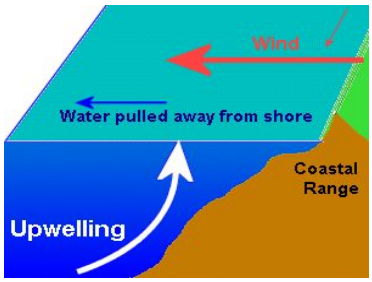
- The surface currents _____the air above it, and thus changes the climate.
- *Question: Alaska and Northern Europe are at the same latitudes. Why is it then that Alaska has a much colder climate than Northern Europe?*

**Deep Currents** - _____ water is moved across the ocean _____, deep below the ocean's surface.

- What causes deep currents?

**Upwelling** – The movement of _____ water _____ from the deep ocean.

- What causes an upwelling?




- Upwelling brings up _____.
- This supply of nutrients allows for many _____ to live in upwelling

zones.