

Chapter 7

Water on Earth

Lesson 1 Notes: How Can Oceans be Described?

The Hydrosphere-

- The hydrosphere covers a little less than 3/4 of the Earth's surface.
- 3% of the hydrosphere is in other places.
- The Pacific Ocean is the largest, followed by the Atlantic Ocean and Indian Ocean
 - On the Map or Globe- you can see all oceans are connected in some way.
- The Pacific Ocean
 - Largest ocean
 - Deepest as well at about 4,000 meters

Salinity-

- **Salinity**: A measure of how salty water is.
- The oceans get salt from rivers. Rivers dissolve small amounts of salts from rocks and soil and carry the salts to the ocean.
- Most of this salt is sodium chloride—just like table salt.
- Places where rivers pour fresh water into the ocean have a low salinity. In warm areas, ocean water evaporates fairly quickly. Salt is left behind, and the ocean has a higher salinity.

Ocean Temperatures-

- Ocean water near the equator is about 30 degrees Celsius (86 degrees F)
- Near the poles, water can be as cold as -2 degrees Celsius (28.4 degrees F)

Ocean Resources-

- One way to get salt is by evaporating water.
- Magnesium and drinking water also come from ocean water. This is filtered which can be expensive.

Lesson 2 Notes: Where is Fresh Water Found?

Fresh Water-

- Drinking water is also called fresh water.
- Fresh water has some dissolved salts, but much less than seawater.
- Almost all Fresh Water starts off as rain or snow; some of it seeps into the ground.

Groundwater-

- Rain or snow that soaks into the ground is called groundwater.

- **Aquifer**: The layer of rock and soil that hold the groundwater.
- **Water table**: The top level of groundwater in an aquifer is called the water table.
 - The level of water changes throughout the year. It will rise when water is added by rain or snow; and will lower when there is a drought.

Rivers-

- Surface waters include: rivers, streams and lakes.

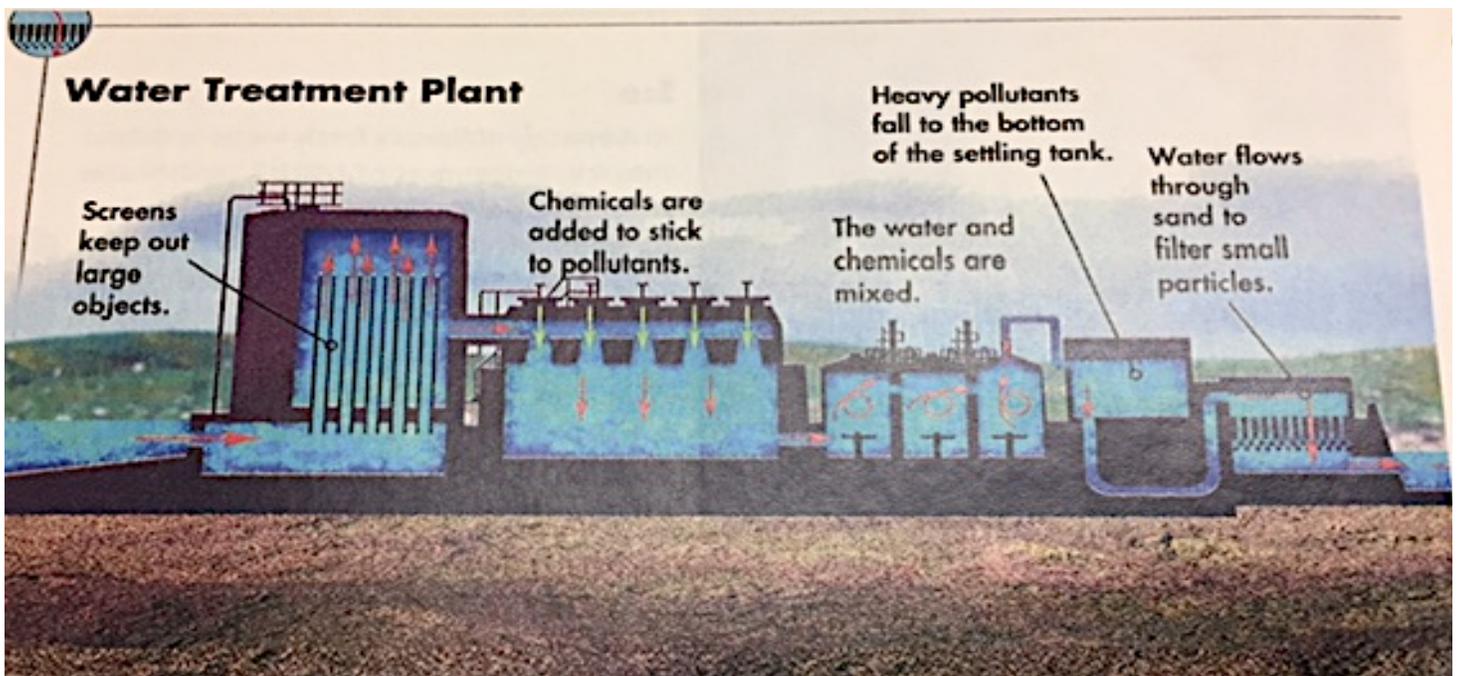
Lakes-

- **Reservoir**: is an artificial lake that forms behind a dam.

Ice-

- Much of the Earth's ice is on Greenland and Antarctica
 - Ice sheets in this area are several meters thick.
- The ice cap in the North Pole floats on the ocean.
- Glaciers and ice sheets are similar areas of ice.
 - Valley glaciers are found in valleys of high mountains. They flow slowly downhill. As they flow, they crush and move rock which changes the shape of the land.

Water Treatment Plant-





Part 2

Getting Water to Homes-

- Small towns in the United States get their water from water towers and ground water.
- Other towns may use surface waters which may contain bacteria and need to be filtered for safety.
- The process of treating water so that it is safe for usage is in the picture above.