NOTES: OCEAN WATER PROPERTIES CHAPTER 20-1 NAME \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Hr\_\_

1. Ocean water has \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ substances in it
   1. DISSOLVED \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ —the main dissolved gases are N \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, O\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, and CO2\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ dioxide. The ocean is considered a CARBON \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ because it has dissolved \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ more carbon dioxide than what the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ holds.
      1. Gases can come in from the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
      2. Gases can come in from \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ entering the ocean
      3. Gases can enter by \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ going off under water
      4. Gases can enter because \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ living in the oceans also release \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ affects the amount of dissolved gases
      1. The colder the water, the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ gases can dissolve in it
      2. The \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ the water, the less gases can dissolve in it
   3. Dissolved \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ —water is about 3.5% dissolved solids
      1. Most abundant solids- Cl\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, Na\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, Mg\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, S\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, C\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, K \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
      2. Source of the solids- solids are brought in by flowing \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ that empty into the ocean
         1. Volcanic \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
         2. Chemical \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
         3. Chemical \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ between sea water and new sea \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ —measure of the amount of dissolved solids in water
   1. What percent salt does our water have?
      1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ = .1% salt
      2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ = 3.5% salt
   2. Factors that change \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
      1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ - when water \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, only the water molecule sticks to the ice and the salt is left behind. The ocean is now more \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (more concentrated with salt)
      2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ - if the evaporation rate is greater than the precipitation rate, the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ increases. Water is flying up in to the air and the salt stays \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ in the water. The ocean is now more \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (more salty)
3. Ocean temperature layers
   1. What are the temperature \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ called?
      1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ - sea level down to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ meters- it’s all about the same temperature due to mixing, and the sun \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ reach down this far
      2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ - 300 meters down to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ m- temperature ranges from 22 degrees C down to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ C.
      3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ zone- 500 m to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of ocean- temperature is near \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ but doesn’t change much – \_\_\_\_\_\_\_ C to \_\_\_\_\_ C
   2. How does temperature affect density?
      1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ water \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ because it is more dense
      2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ water \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ because it is less dense