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| ***Chapter 2 Section 1 Properties of Water***  **The Structure of Water**  Polar Molecule  Describe the arrangements of water molecule.  **Key Properties of Water**  Capillary Action  Surface Tension  Universal solvent      a)Solvent  b)Solute  Specific Heat   1. How does this affect climate?   b )Why does water have a high specific heat?  Finish the rest of Ch 2 Sec 1. | H2O – two Hydrogen atoms (each has a positive charge) bonded to one Oxygen atom ( with one negative charge)  A molecule with electrically charged areas  The positive hydrogen ends of one water molecule attract the negative oxygen ends of nearby water molecules. So water molecules stick to each other.  (Draw a picture.)  The combined force of attraction among water molecules and with molecules of surrounding materials (Water molecules stick to materials they touch and to each other ) Example: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_)  The tightness across the surface of the water cause by polar water molecules pulling on each other. Example: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.  Many substances dissolve in water so its called the Universal Solvent. This is because of the unbalanced charges on water molecules. They help substances dissolve in water. Example: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.  The substance that does the dissolving. Example: water  The substance that gets dissolved. Example: sugar, salt, food color  The amount of heat needed to increase the temperature of a certain mass of a substance by 1 degree Celsius.  Compared to other substances, water requires a lot of heat energy to heat.  At the coast, ocean water stays cool in the spring and cools the air above it. The land heats more quickly and heats the air above it. Cool air from the ocean cools the air over the coastal land. The opposite happens in autumn  This is because water molecules hold on to each other and make it hard for heat to penetrate water. |