Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Bell: \_\_\_\_\_\_\_\_\_\_\_\_\_

**Review Properties of Water**

1. Why is water such an important molecule to living things?

2. Describe the chemical makeup and type of bonding found in water molecules.

3. Explain why the hydrogen and oxygen atoms don’t share electrons equally in a water molecule.

4. What is the effect of this uneven sharing of electrons in water?

5. Sketch a molecule of water showing the charges of the molecule.

6. Water’s polarity makes it very effective in \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ other substances, making it the universal solvent.

7. Water molecules are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to other water molecules.

8. What type of bonding holds 2 or more water molecules together?

9. Are hydrogen bonds strong or weak bonds? Can they be easily broken?

10. Water molecules **attracting other water molecules** is called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

11. Cohesion of water molecules produces \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ tension making water seem like it has a “skin” on it. Surface tension enables some \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to walk across the surface of the water.

12. Water molecules attracting **other types** of molecules is called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

13. Adhesion and cohesion together enable water molecules to move through narrow tubes against the force of gravity, this property of water is called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

14. Give an example of an organism using capillary action.

15. What must be true for water to change temperature?

16. What effect does heat have on water?

17. Explain why water resists evaporation.

18. Give an example of how this water property helps organisms in the environment.

19. Explain what happens to water as it dissociates into an acid and base.

20. On the back of this worksheet, create a line graph with the following data table below, (remember TAILS).

|  |  |  |
| --- | --- | --- |
| Effect of Temperature( ⁰C) on Fresh and Salt Water Overtime | | |
| Time (years) | Fresh Water | Salt Water |
| 2008 | 20 | 23 |
| 2009 | 24 | 27 |
| 2010 | 25 | 29 |
| 2011 | 27 | 30 |
| 2012 | 28 | 29 |
| 2013 | 30 | 32 |

