**polarity:**

**cohesion:**

**Adhesion**:

**capillary action:**

**surface tension:**

**specific heat:**

**hydrogen bond:**

1. Circle the letter of each sentence that is true about water's structure.
a. Water is made up of atoms bonded to form molecules.
b. Water contains half as many hydrogen atoms as oxygen atoms.
c. Water molecules tend to push away from each other.
d. The chemical formula for water is H20.

2. One side of the water molecule has a positive charge, while the other side has a negative charge. What do the charges indicate about the molecule?

a. Water is a polar molecule.
c. Water is an ionic compound.
b. Water is a nonpolar molecule.
d. Water is an ion.

3. Bonds that form between water molecules are called Hydrogen bonds.

4. True or False? Hydrogen bonds are strong and require a lot of energy to break. False

5. The tendency for water molecules to stick to other water molecules is calledCohesion.

6. A force that acts on the particles of a liquid at the surface it called Surface Tension.

7. How does surface tension force the surface of water to curve? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Write the definition of each key term.**

8. The tendency for water molecules to be attracted and stick to other substances is called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

9. Circle the letter of each sentence that is true about water's surface tension.
a. It helps some insects "skate" across the surface of the water.
b. It refers to the tightness across the surface of the water.
c. It is caused by polar molecules repelling each other.
d. It causes raindrops to form round beads.

10. What is a curved surface in a graduated cylinder called? A \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

11. Circle the letter of each sentence that is true about capillary action.
a. It explains how water moves against the force of gravity.
b. It is due to the attraction among molecules of water and surrounding materials.
c. It prevents water from moving through materials with pores.
d. It causes clothing to stay dry.

12. How does capillary action allow water to climb up the sides of a straw? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

13. A mixture that forms when one substance dissolves another is called a(n)\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ . The substance that does the dissolving is called a(n) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ .

14. Why can water dissolve many substances? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

15. Circle the letter of each substance that dissolves in water. a. salt b. oil c. oxygen d. wax

16. A substance that hates, or “fears” water is called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

17. The amount of heat needed to increase the temperature of a certain mass of a substance by 1°C is its \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

18. True or False? Compared with other substances, water requires a lot of heat to increase its temperature.

19. Circle the letter of each sentence that is true about water's specific heat.
a. It is due to the many attractions among water molecules.
b. It makes large bodies of water heat up more quickly than nearby land.
c. It makes large bodies of water cool off more slowly than nearby land.
d. It leads to warmer air over land than over water on summer days.

20. How does the high specific heat of water affect your body? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Match the terms review.**

***\_\_*** 1. cohesion  \_\_2. capillary action ***\_\_*** 3. adhesion
\_\_4. polarity ***\_\_*** 5. hydrogen bond \_\_6. surface tension
***\_\_*** 7. specific heat

a. tendency to stick to other substances
b. tightness caused by the pulling of water molecules on each other
c. the amount of heat needed to raise 1kg of a substance 1o
d. weak bonds formed between water molecules
e. tendency to stick to other water molecules
 f. uneven distribution of charges in a molecule
g. tendency to climb up due to cohesion and adhesion properties of water