

Name _____
Date _____ Period _____

Modeling Water Answer Sheet

Describing your observations:

1. What atom does the red part of the water molecule represent? _____ What atom do the white parts of the water molecule represent? _____

2. What is the chemical formula of water? _____

3. What bond is holding the three atoms together in a water molecule? _____

NOTE: This bond is an *intramolecular* bond.

4. **Form a hypothesis:** What will happen when two water molecules bump into each other? _____

5. What is the name of the bond that is formed between two water molecules? _____

NOTE: This bond is an *intermolecular* bond.

6. Which bond is the stronger of the two? Explain how you know. _____

7. Water is a **polar covalent molecule**. In your own words, define that term. _____

8. Draw the five-water-molecule arrangement below. Be sure to label each hydrogen atom with an H and each oxygen atom with an O.

9. The blue ball represents which element? _____ The green ball represents which element? _____ Explain how you know. _____

10. Together these two atoms form sodium chloride. What is the common name for this compound?

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11. What is the **intramolecular** bond that holds these two atoms together? _____

12. **Form a hypothesis:** Will water interact with sodium chloride? How? _____

13. Are chloride ions positively or negatively charged? How do you know? _____

14. Are sodium ions positively or negatively charged? How do you know? _____

15. Sketch how sodium chloride is dissolved in water below.

16. In your own words, define cohesion. _____

17. In your own words, define adhesion. _____

18. In your own words, define capillary action. _____

19. In your own words, define surface tension. _____
