1. What type of bond is formed between H₂O molecules? ____________________________

2. Explain some of the properties of water.
   - High surface tension ____________________________
   - High heat capacity ____________________________

3. Define: solvent ____________________________
   solute ____________________________
   solution ____________________________

4. Why is water an excellent solvent? ____________________________

5. When water moves in the body, it always follows a ____________.
   Give some examples. ____________________________

6. Water dissociates into _______ and _______.

7. In pure water (pH = 7), the [H⁺] _______ [OH⁻] (greater than, less than, equal to)

8. The pH of a solution tells you whether it is ____________ or ____________.

9. As [H⁺] increase, the [OH⁻] ____________ (increase or decrease); the pH is _______ (higher or lower) and the solution is ____________ (acidic or basic).

10. As [OH⁻] increases, the [H⁺] ____________ (increase or decrease); the pH is _______ (higher or lower) and the solution is ____________ (acidic or basic).

11. Define acid: ____________________________
    HCl is a strong acid that dissociates into _______ and _______.
    It adds _______ to the solution. This makes the solution ____________.

12. Define base: ____________________________
    NaOH is a strong base that dissociates into _____ and _____.
    The concentration of H⁺ decreases because they bind with _______ to form water.
    This makes the solution ______________.
    Another term for a basic solution is ______________________.

13. An acid plus a base form a ____________ and ____________.
1. hydrogen
2. High surface tension - hydrogen bonds between $\text{H}_2\text{O}$ are difficult to break
   High heat capacity - $\text{H}_2\text{O}$ absorbs a lot of heat before the molecules change to a gas (steam)
3. solvent - dissolving agent
   solute - substance being dissolved
   solution - mixture of solute and solvent
4. due to its polarity (it is attracted to oppositely charged sides of ions or polar substances that
   have positive and negative areas)
5. solute; salt or glucose
6. $\text{H}^+$ and $\text{OH}^-$
7. equal to
8. acidic; basic (alkaline);
9. decrease; lower; acidic
10. decrease; higher; basic
11. Acid - a solute that increases the $\text{H}^+$ concentration by donating $\text{H}^+$; $\text{H}^+$; $\text{Cl}^-$; $\text{H}^+$; acidic
12. Base - a solute that reduces the $\text{H}^+$ concentration by donating $\text{OH}^-$ to a solution which binds
    with $\text{H}^+$ taking them out of the solution; $\text{Na}^+$; $\text{OH}^-$; $\text{OH}^-$; basic; alkaline
13. salt; water ($\text{HCl} + \text{NaOH} \rightarrow \text{NaCl} + \text{H}_2\text{O}$)