

# Chemistry of Water

1. polar covalent bond:
  - a. Polar molecules and ionic compounds
  - b. A covalent bond in which electrons are not shared equally
  - c. dissolved in water
2. Polarity:
  - a. Neutral
  - b. Dissolved in water
  - c. Unequal sharing of electrons that leads to partial charges.
3. hydrogen bond:
  - a. tendency of water to rise against gravity in a thin tube
  - b. Weak bond between a slightly positive hydrogen atom and a slightly negative atom
  - c. Polar molecules & ionic compounds
4. Acid:
  - a. Any compound that forms  $H^+$  ions into an aqueous solution
  - b. An attraction b/w molecules of different substances
  - c. Allows water to stabilize the climate
5. Aqueous:
  - a. Tendency of water to rise against gravity
  - b. Neutral
  - c. dissolved in water
6. base:
  - a. A substance that releases  $OH^-$  ions into a solution
  - b. Alkaline
  - c. Neutral
7. Hydroxide:
  - a. Neutral
  - b. High heat
  - c. A negatively charged ion composed of one Oxygen atom and Hydrogen atom
8. Ph:
  - a. A measure of how acidic or basic an aqueous solution is
  - b. Neutral
  - c. Cool down
9. A solution with a pH of 7 is:
  - a. Too hot
  - b. Neutral
  - c. Cold
10. A solution with a pH of 9 is:
  - a. alkaline
  - b. neutral
  - c. cold
11. Nonpolar:
  - a. a molecule with no partial charges, in which electrons are shared equally between atoms
  - b. neutral
  - c. Southern
12. Water is capable of dissolving:
  - a. acids
  - b. polar molecules and ionic compounds
  - c. atoms and cells
13. Cohesion:
  - a. Dissolved in water
  - b. Neutral
  - c. Attraction between molecules of the same substance
14. Adhesion:
  - a. Living things don't heat up
  - b. An attraction between molecules of different substances
  - c. Tendency of water to rise
15. Hydrogen bonds are caused by:
  - a. Attraction between polar molecules
  - b. Alkaline
  - c. High heat
16. Surface tension:
  - a. Cool down
  - b. Resistance to external force caused by cohesion between the molecules of a liquid
  - c. Cold
17. Ice floats because:
  - a. hydrogen bonding spaces the molecules farther apart, creating a less dense structure
  - b. Neutral
  - c. Alkaline
18. Water has:
  - a. nitrogen
  - b. a high specific heat compared to other substances
  - c. neurons

19. The specific heat of water is important to life because:
- High heat
  - It ensures that living things don't heat up or cool down too fast
  - Neurons rub together and cause friction
20. The specific heat of water is important to the climate because:
- It cools everything
  - Alkaline
  - It allows water to stabilize the climate by regulating the temperature of the planet.
21. Solvent:
- High solidity
  - A liquid substance capable of dissolving other substances
  - Combines molecules to create one atom
22. capillary action:
- high heat
  - tendency of water to rise against gravity in a thin tube
  - cool down
23. The fact that ice floats is important to aquatic organisms because:
- Alkaline
  - Neutral
  - A layer of ice acts like a blanket to keep the lower layers of water warm, so organisms at the bottom don't freeze