

electrons if the element is reactive.

10. Explain the three types of chemical bonds we discussed, and how these bonds form. Which electrons of an atom are most involved in bonding?

The three types of chemical bonds are covalent bonds, ionic bonds, and hydrogen (H) bonds. Covalent bonds form by switching different bonds with other atoms. Ionic bonds are formed by two ions with oppositely charged particles attracting to each other. ( Like a magnet ). A Hydrogen bond is the weakest bond between one atom and a hydrogen atom. The valence electrons are the most involved in bonding. (Valence meaning the outermost electrons)

11. Explain how an ion is different from an atom. Give a few examples of common ions. Distinguish between cations and anions.

An ion is formed when an atom is positively or negatively charged in one way or another. An atom is not positively charged nor negatively charged. Commons ions include.  $\text{Na}^+$   $\text{Cl}^-$  and so on. Cations are when an ion is positively charged and an anion is when an ion is negatively charged.

12. Which of the three bond types is the strongest? Which is weakest?

The covalent bond is the strongest bond, while the hydrogen bond is the weakest. The order goes from Covalent>Ionic>Hydrogen.

13. Water contains polar covalent bonds. What does that mean?

A polar covalent bond is when there are unequal sharing of electrons or different electronegativity.

14. How is the attraction (pull) of electrons related to polar covalent bonds in water?

The pull of electrons is when another electron pulls on the atoms electrons it is paired with. The polar covalent bond is when an atom shares electrons, but shares them unequally or with different electronegativity.

15. Describe how the hydrogen bonding between water molecules give water so many unique physical and chemical properties, including cohesion and adhesion, surface tension, and high boiling temperature.

Hydrogen bonds allow water to have the properties of hydrogen and oxygen. Cohesion is when make the water molecules stick together. Adhesion allows one substance to cling on to another. Surface tension allows for pressure on top of the water without breaking it.

16. Explain why sweating lowers the body temperature.

Sweating helps cool off the body temperature by releasing some of the heat through a