Name _____

The Magical Connection: Understanding Chemical Bonds

Short Answer Key

1. Water (H2O)
2. In an ionic bond, one atom donates an electron, becoming positively charged (cation), while another atom accepts that electron, becoming negatively charged (anion). These opposite charges attract, forming a strong bond.
3. Metallic bonds involve the free movement of electrons among a sea of metal atoms, whereas covalent bonds involve electron sharing, and ionic bonds involve electron transfer.
4. DNA replication
5. During a chemical reaction, chemical bonds can break and new ones form, leading to the release or absorption of energy.