

Name _____

Polarity Power: How It Shapes Molecule Magic

Multiple Choice Questions

1. What is electronegativity?
 - A. The ability of an atom to share electrons equally
 - B. The measure of an atom's charge
 - C. The ability of an atom to attract electrons
 - D. The number of protons in an atom

2. What type of bond results in a partial positive and partial negative charge on atoms?
 - A. Polar covalent bond
 - B. Metallic bond
 - C. Nonpolar covalent bond
 - D. Ionic bond

3. Which statement is true about the solubility of polar and nonpolar molecules?
 - A. Polar molecules dissolve in nonpolar solvents.
 - B. Nonpolar molecules dissolve in polar solvents.
 - C. Polar molecules dissolve in polar solvents.
 - D. Nonpolar molecules never dissolve in any solvent.

4. Why do polar molecules generally have higher boiling and melting points than nonpolar molecules of similar size?
 - A. Because they have weaker intermolecular forces
 - B. Because they have stronger intermolecular forces
 - C. Because they have weaker dipole-dipole interactions
 - D. Because they have no intermolecular forces

5. What property of polar molecules allows them to form hydrogen bonds with other polar molecules?
 - A. Electrical conductivity
 - B. Surface tension
 - C. Chemical reactivity
 - D. Solubility

