

Name _____

The Magical Dance of Atoms: How They Combine to Form Molecules

Multiple Choice Questions

1. What is the most common type of chemical bond that allows atoms to share electrons?

- a) Ionic bond
- b) Covalent bond
- c) Metallic bond
- d) Hydrogen bond

2. How many electrons are typically found in the outermost energy level of an atom, following the octet rule?

- a) 2 electrons
- b) 4 electrons
- c) 6 electrons
- d) 8 electrons

3. In an ionic bond, what happens between the atoms involved?

- a) They share electrons.
- b) They form covalent bonds.
- c) They transfer electrons.
- d) They attract protons.

4. Which of the following is NOT an example of a molecule?

- a) Water (H₂O)
- b) Oxygen gas (O₂)
- c) Sodium chloride (NaCl)
- d) Helium (He)

5. What allows atoms to combine in numerous ways to create diverse molecules?

- a) The octet rule
- b) Ionic bonds
- c) Covalent bonds
- d) Their atomic number

