

Name \_\_\_\_\_

## Bonding Wonders: Everyday Substances and Chemical Bonds

### Short Answer

1. Explain the role of covalent bonds in the formation of methane ( $\text{CH}_4$ ).
2. Provide an example of a substance held together by ionic bonds and explain how these bonds work in that substance.
3. How do metallic bonds contribute to the electrical conductivity of metals like copper ( $\text{Cu}$ )?
4. Describe the characteristics of Van der Waals forces and their importance in non-polar molecules.
5. What role do hydrogen bonds play in the properties of water ( $\text{H}_2\text{O}$ ), and why are they important?

