

Name \_\_\_\_\_

## Unlocking the Secrets of Elements: Exploring Chemical Properties

### Open-Ended Response Questions

1. Explore the connection between an element's electron arrangement and its reactivity. How does the number of electrons in an element's outermost energy level influence its reactivity?
2. Investigate the practical applications of understanding the reactivity of elements in industries like metallurgy and materials engineering. How can this knowledge be used to develop new materials?
3. Reflect on the significance of electronegativity in chemical bonding. How does the electronegativity of elements affect the nature of chemical compounds and their properties?
4. Discuss the importance of studying chemical properties in the context of environmental science. How can this knowledge help address environmental challenges and concerns?

