

Name \_\_\_\_\_

## Unlocking Mysteries with Phase Diagrams: Understanding Substance Behavior

### Open-Ended Response Questions

1. Discuss the practical applications of phase diagrams in scientific research and industrial processes.
2. Compare and contrast phase transitions represented on a phase diagram, such as melting, boiling, and sublimation, and explain how they relate to changes in temperature and pressure.
3. Explore the role of the triple point in ensuring the accuracy and consistency of temperature measurements and its impact on scientific research and technological advancements.
4. Explain why phase diagrams are essential tools for understanding and predicting the behavior of different substances under varying conditions of temperature and pressure.

