

Name _____

What is the Law of Conservation of Mass, and How Does It Apply to Chemical Reactions?

Open-Ended Response Questions

1. Imagine you have a container with 100 grams of a substance, and you perform a chemical reaction inside it. After the reaction, you find that the container still contains 100 grams of material. Explain how this observation supports the Law of Conservation of Mass and what might have happened at the atomic level.

2. Think of a real-world example where understanding the Law of Conservation of Mass is essential for solving a problem or making a process more efficient. Explain the scenario and its significance.

3. Discuss the environmental benefits of applying the Law of Conservation of Mass in waste management and resource conservation.

4. Suppose you are a chemist studying a new chemical reaction. How would you use the Law of Conservation of Mass to ensure accurate measurements and calculations in your experiments?

