5th Grade Science Review: Chemical Change Mass Test

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Understanding the Conservation of Mass

Name: _____ Date: _____

Answer the following questions based on the lesson about chemical changes and the conservation of mass.

1. What happens to the total mass during a chemical reaction in a closed system?

- **A.** It increases
- **B.** It decreases
- **C.** It remains constant

2. Chemical reactions can change the properties of substances.

◯ True ◯ False

3. What did you observe during the baking soda and vinegar reaction? Describe your observations in 3-4 sentences.

4. In a closed system, the total mass before and after a chemical reaction is ___.

5. Why is measuring mass important in scientific experiments?

- **A.** To make the experiment look good
- **B.** To understand how substances react
- **C.** To find out the price of materials

6. God's design in physical laws is described as random and chaotic.

◯ True ◯ False

7. How might chemical reactions differ from physical changes? Give an example of each in your answer.

8. According to Colossians 1:17, all things are held together in Him, showing God's incredible ___.

9. What is a characteristic of a chemical reaction?

- **A.** It can be easily reversed
- **B.** It changes the properties of substances
- **C.** It only involves physical changes

10. The conservation of mass means matter can be created or destroyed in a chemical reaction.

◯ True ◯ False

Answer Key

1. constant 2. True 3. I observed bubbling and fizzing when the baking soda mixed with vinegar. The bag expanded as the gas was produced. The reaction created a lot of foam, and it was exciting to see the changes happening. It showed that a chemical change was taking place. 4. constant 5. To understand how substances react 6. False 7. Chemical reactions change the substances, such

as baking soda reacting with vinegar to create new substances. Physical changes, like melting ice to water, do not change the substance itself. Both involve changes, but one alters the chemical makeup while the other does not. 8. design 9. It changes the properties of substances 10. False