

Name _____

Answer Key: Chemical Reactions and Balancing Equations

1. Chemical reactions involve the rearrangement of atoms to form new substances and are important in chemistry for understanding how substances change and interact.

2. A chemical equation is a representation of a chemical reaction, with reactants on the left and products on the right.

3. It is essential to balance a chemical equation to ensure the conservation of mass; the number of each type of atom must be the same on both sides of the equation.

4. The balanced equation for water formation from hydrogen and oxygen is: $2\text{H}_2 + \text{O}_2 \rightarrow 2\text{H}_2\text{O}$. This equation indicates that two molecules of hydrogen react with one molecule of oxygen to produce two molecules of water.

5. False