

Name:

Date:

CHEMICAL REACTION EQUATIONS

Write balanced chemical equations for the following reactions. Identify the type of reaction (e.g., synthesis, decomposition, single-replacement, double-replacement, combustion).

1. Reaction Description:

Magnesium metal reacts with oxygen gas to form magnesium oxide.

Balanced Chemical Equation:



Explanation:

This is a synthesis reaction where magnesium combines with oxygen to form magnesium oxide. The equation is balanced by ensuring the number of atoms of each element is equal on both sides.

2. Reaction Description:

Hydrogen peroxide decomposes into water and oxygen gas.

Balanced Chemical Equation:



Explanation:

This is a decomposition reaction where hydrogen peroxide breaks down into water and oxygen. The equation is balanced by ensuring the number of oxygen and hydrogen atoms are the same on both sides.

3. Reaction Description:

Solid potassium reacts with water to produce potassium hydroxide and hydrogen gas.

Balanced Chemical Equation:



Explanation:

This is a single-replacement reaction where potassium replaces the hydrogen in water, producing potassium hydroxide and hydrogen gas.