Name Period Date

**Introduction to Reactions – Ch. 11**

For each of the following reactions, write a chemical equation to match the given description. Be sure to address: How many? Of what? In what state?

1. Two atoms of lithium react with two molecules of liquid water to produce two units of aqueous lithium hydroxide and one molecule of hydrogen gas.
2. When heated, a unit of solid calcium carbonate yields a unit of solid calcium oxide and a molecule of carbon dioxide gas.

For each of the following reactions, write a description of the given chemical equation. Be sure to address: How many? Of what? In what state?

1. 2Na(*s*) + Cl2(*g*) → 2NaCl(*s*)
2. 2Fe(*s*) + 2H2O(*l*) + O2(*g*) → 2Fe(OH)2(*s*)
3. Draw a diagram representing the reaction in #4. Differentiate between elements using labels or different colors. How does this diagram demonstrate the law of conservation of mass? (Draw circles to represent the reaction)