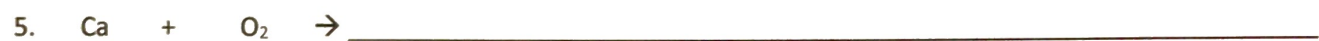
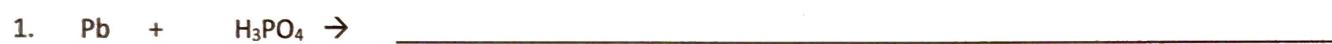


EXTRA PRACTICE: Predicting Products

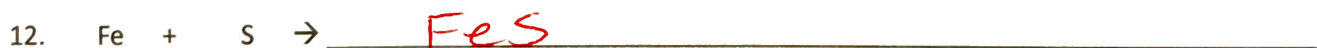
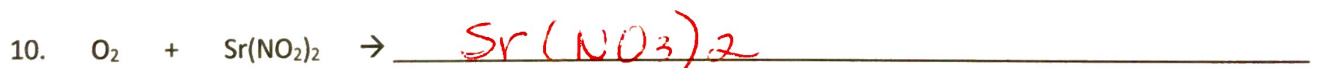
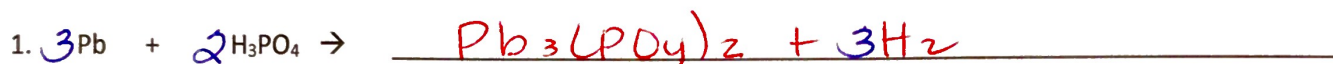
Study the reactants below. Predict the products of the synthesis and decomposition reactions. For the single displacement reactions, first check the activity series to determine if a reaction will occur. If so, write the products, otherwise write NO REACTION. Balance the equations.



Key.

EXTRA PRACTICE: Predicting Products

Study the reactants below. Predict the products of the synthesis and decomposition reactions. For the single displacement reactions, first check the activity series to determine if a reaction will occur. If so, write the products, otherwise write NO REACTION. Balance the equations.



Extra Practice: Writing and Balancing Chemical Equations

Write a balanced chemical equation for the following reactions. Include state symbols. Identify the following equations as either SYNTHESIS, DECOMPOSITION, SINGLE DISPLACEMENT OR DOUBLE DISPLACEMENT.

1. Solid iron (III) oxide reacts with carbon to form solid iron and carbon dioxide gas.

TYPE: _____

2. Potassium oxide reacts with water to produce a solution of potassium hydroxide.

TYPE: _____

3. Nitrogen dioxide gas decomposes to form oxygen and nitrogen gases.

TYPE: _____

4. A sodium sulfate solution and a barium phosphate solution react to form aqueous sodium phosphate and a solid precipitate of barium sulfate.

TYPE: _____

5. Ammonium nitrate can decompose explosively to form nitrogen gas, water vapour and oxygen gas.

TYPE: _____

6. The combination of sodium metal and chlorine gas yields sodium chloride.

TYPE: _____

7. When heated, potassium chlorate will produce potassium chloride and oxygen gas.

TYPE: _____

Key

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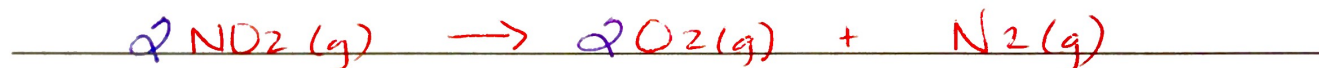
TYPE: single displacement

2. Potassium oxide reacts with water to produce a solution of potassium hydroxide.



TYPE: synthesis

3. Nitrogen dioxide gas decomposes to form oxygen and nitrogen gases.



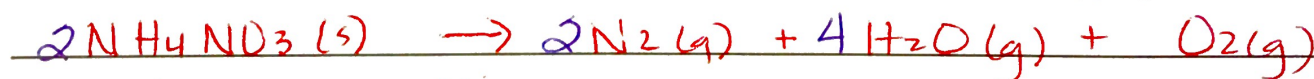
TYPE: decomposition

4. A sodium sulfate solution and a barium phosphate solution react to form aqueous sodium phosphate and a solid precipitate of barium sulfate.



TYPE: double displacement

5. Ammonium nitrate can decompose explosively to form nitrogen gas, water vapour and oxygen gas.



TYPE: decomposition

6. The combination of sodium metal and chlorine gas yields sodium chloride.



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7. When heated, potassium chlorate will produce potassium chloride and oxygen gas.



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