REACTION CATEGORY	SYNTHESIS OR DIRECT COMBINATION
REACTION DESCRIPTION	In these reactions, two different molecules or atoms unite to usually form a single substance.
REACTION FORMAT	A + B ---> AB
REACTION GUIDELINES	1. Direct union of two elements will produce a binary compound. 2. Metallic oxides and carbon dioxide react to produce carbonates. 3. Binary salts and oxygen react to produce a chlorate. 4. Metallic oxides and water react to produce a base. 5. Nonmetallic oxides and water react to produce an acid.
REACTION GUIDELINE EXAMPLES	1. $2Mg + O_2 \rightarrow 2MgO$ 2. $Na_2O + CO_2 \rightarrow Na_2CO_3$ 3. $2KCl + 3O_2 \rightarrow 2KClO_3$ 4. $Na_2O + H_2O \rightarrow 2NaOH$ 5. $N_2O_5 + H_2O \rightarrow 2HNO_3$

Synthesis Reaction Practice

1) $MgCl_2 + O_2 \rightarrow$

2) $Ag + O_2 \rightarrow$

3) $P_2O_3 + H_2O \rightarrow$

4) $K_2O + H_2O \rightarrow$

5) $BaO + CO_2 \rightarrow$

6) $BeO + CO_2 \rightarrow$

7) $Al_2O_3 + H_2O \rightarrow$

8) $SO_3 + H_2O \rightarrow$

9) $NaCl + O_2 \rightarrow$

10) $As + Cl_2 \rightarrow$