

| REACTION CATEGORY | DECOMPOSITION |
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| REACTION DESCRIPTION | During decomposition, one compound splits apart into two or more substances. These substances can be elements or simpler compounds. |
| REACTION FORMAT | $AB \longrightarrow A + B$ |
| REACTION GUIDELINES | <ol style="list-style-type: none"> 1. Binary compounds breakdown into their elements. 2. Carbonates break down into an oxide and carbon dioxide 3. Chlorates break down to a binary salt and oxygen. 4. Bases break down to the oxide of the metal and water. 5. Acids break down to the oxide of the nonmetal plus water. |
| REACTION GUIDELINE EXAMPLES | <ol style="list-style-type: none"> 1. $2\text{NaCl} \longrightarrow 2\text{Na} + \text{Cl}_2$ 2. $\text{Na}_2\text{CO}_3 \longrightarrow \text{Na}_2\text{O} + \text{CO}_2$ 3. $\text{Ba}(\text{ClO}_3)_2 \longrightarrow \text{BaCl}_2 + \text{O}_2$ 4. $\text{Ca}(\text{OH})_2 \longrightarrow \text{CaO} + \text{H}_2\text{O}$ 5. $2\text{H}_3\text{PO}_4 \longrightarrow \text{P}_2\text{O}_5 + 3\text{H}_2\text{O}$ |

Decomposition Reaction Practice