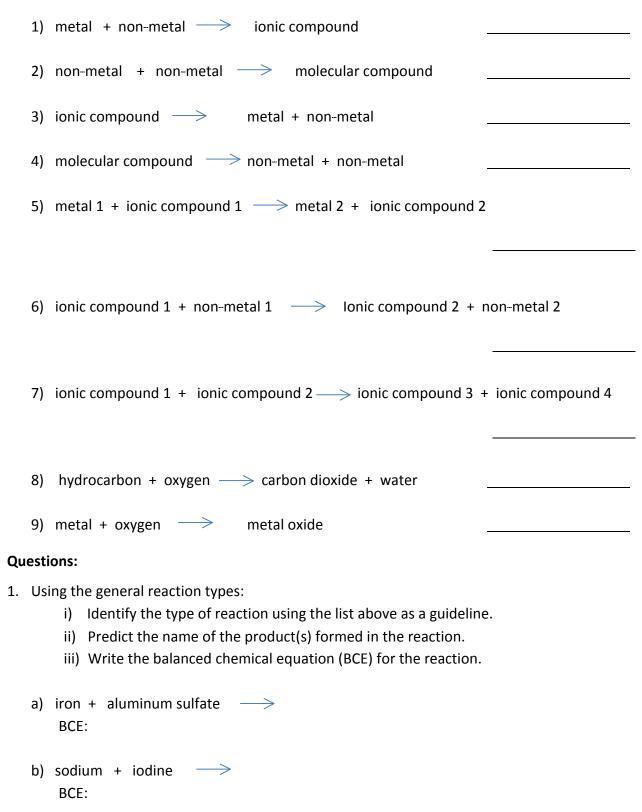
Making Predictions Using the Types of Reactions

The 5 general reactions (synthesis, decomposition, single displacement, double displacement, combustion) can occur between elements and compounds. Classify each using the 5 types of reactions.



c) aluminum chloride \longrightarrow

BCE:

BCE:

- 2. For each of these reactions:
 - i) Identify the type of reaction.
 - ii) Complete the skeleton equation. *Hint: use the list to guide you.*
 - iii) Balance the equation.
- a) NaOH + $Cu(NO_3)_2 \longrightarrow$
- b) $C_2H_2 + O_2 \longrightarrow$
- c) $H_2O \longrightarrow$
- d) $Ag_2O \longrightarrow$
- f) Al + KCl --->
- In cars, several reactions take place when an airbag inflates in an accident. Using your knowledge of types of reactions, complete balanced equations for each of the 3 reactions.

<u>Reaction 1:</u> Sodium azide (NaN_3) undergoes a decomposition reaction to produce an alkali metal and a common gas.

<u>Reaction 2:</u> The dangerous metal produced in reaction 1 is removed by a single displacement reaction with iron (III) oxide.

<u>Reaction 3</u>: The metal oxide produced in reaction 2 combines with carbon dioxide and water in a synthesis reaction to create sodium bicarbonate.