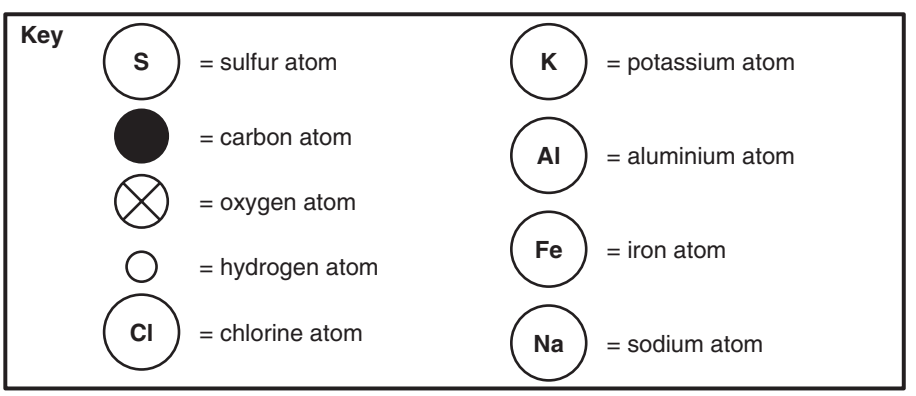
Symbol equations

Chemical equations are not all that hard if you can see what you are doing. When the equation is drawn out, you can see how the symbols and words represent the same reaction.

Here is an example showing the reaction that happens when you strike a match head:



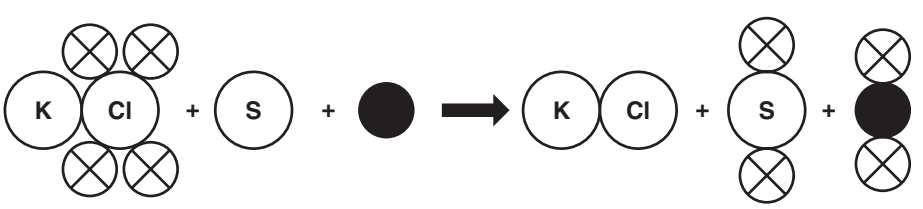
Word equation

potassium chlorate + sulfur + carbon → potassium chloride + sulfur dioxide + carbon dioxide

Symbol equation

$KClO_4 + S + C \rightarrow KCl + SO_2 + CO_2$

Picture equation



If you follow each substance downwards in the three equations, you can see they are talking about the same reaction.

Symbol equations (continued)

So try this

Your teacher will give you a sheet of paper with some equations on. Complete the **symbol equation** in each of these examples. Make sure you get the numbers right in each case.

1 Spirit burner reaction

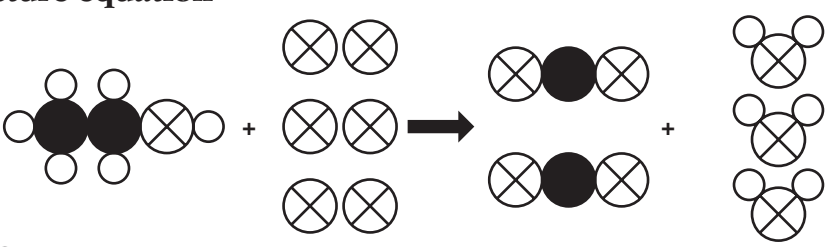
Word equation

ethanol + oxygen → carbon dioxide + water (vapour)

Symbol equation

C_2H_5OH + → +

Picture equation



2 Carbonate fizz

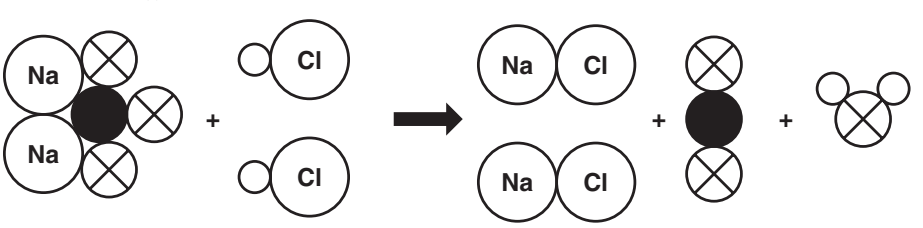
Word equation

sodium carbonate + hydrochloric acid → sodium chloride + carbon dioxide + water

Symbol equation

Na_2CO_3 + → + +

Picture equation



3 The Thermit Reaction

Word equation

iron oxide + aluminium (metal) → aluminium oxide + iron (metal)

Symbol equation

+ → Al_2O_3 +

Picture equation