SCH3U Chemical Reactions		Combustion Reactions		
	combustion real the reaction of a substance with o producing one o oxides, heat, and	xygen, r more	When a compound "burns" in air it is reacting with the O ₂ in air.	hydrocarbon a compound that is composed only of the elements carbon and hydrogen
<u>Complete</u> Combustion:		h	ydrocarbon + oxygen \rightarrow car C_xH_y + $O_2(g) \rightarrow$	bon dioxide + water $CO_2(g) + H_2O(g)$

ex) Methane (CH₄) is used in your bunsen burners.

ex) Butane (C₄H₁₀) is used in your lighters.

ex) Glucose (C₆H₁₂O₆) is the sugar your body uses to produce energy.

ex) A tricky one: $C_2 H_{6 (g)} + O_{2 (g)} \rightarrow CO_{2 (g)} + H_2O_{(g)}$

Incomplete Combustion: Results when there isn't enough oxygen present Hydrocarbon + oxygen \rightarrow carbon + carbon monoxide + carbon dioxide + water

 $CxHy + O_{2(g)} \longrightarrow C_{(s)} + CO_{(g)} + CO_{2(g)} + H_2O_{(g)}$

ex) Write a balanced chemical equation for Hexane (C₆H₁₄) undergoing incomplete combustion.

 $C_6H_{14} + O_2 \longrightarrow CO_2 + CO + C + H_2O$

Try p. 141 #41-50