




C7 Organic Chemistry

<i>Can you...?</i>	😊	😐	😞
7.1.1 Crude oil, hydrocarbons and alkanes			
State what crude oil was formed from.			
Describe what crude oil contains.			
State what a hydrocarbon is.			
Define the term saturated in relation to a hydrocarbon.			
State the general formula for an alkane and identify them from their name, formula or structure.			
State the names of the first four members of the homologous series of alkanes and represent their structure in the following forms. <div style="text-align: center;"> $\begin{array}{c} \text{H} \quad \text{H} \\ \quad \\ \text{H}-\text{C}-\text{C}-\text{H} \\ \quad \\ \text{H} \quad \text{H} \end{array}$ </div> C ₂ H ₆			
Explain what a homologous series is.			
7.1.2 Fractional distillation and petrochemicals			
Explain the process of fractional distillation of crude oil in terms of evaporation and condensation.			
Describe what a fraction is and state the uses of fractions.			
State the name of fuels we depend on which are produced from crude oil.			
State useful materials which are produced by the petrochemical industry and describe their function.			
State why there is large variety of natural and synthetic carbon compounds.			
7.1.3 Properties of hydrocarbons			
Explain how the size of hydrocarbon molecules affect their boiling point, viscosity and flammability.			
Explain how the properties of a hydrocarbon affects its use as a fuel.			
Describe what happens during the combustion of a hydrocarbon.			
Write balanced equations for the complete combustion of hydrocarbons with a given formula.			
7.1.4 Cracking and alkenes			
Describe cracking in general terms as an example of thermal decomposition.			
Describe in general terms the conditions for catalytic cracking.			
Describe in general terms the conditions for steam cracking.			
Identify the products of cracking.			

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Balance chemical equations as examples of cracking given the formulae of the reactants and products.			
Explain how to test for an alkene.			
Explain why cracking is used and give examples to illustrate its usefulness.			
State what the alkenes produced from cracking are used for.			
Explain how modern life depends on the use of hydrocarbons.			