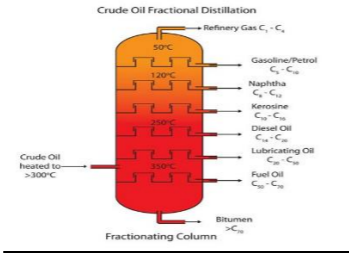
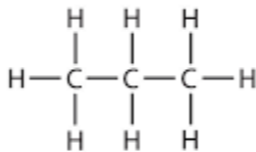
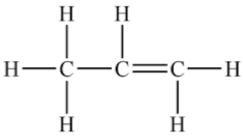


Topic: <u>C1.4- Organics</u>	<u>Equations</u>	<u>Prior Knowledge:</u>
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<u>Crude oil</u> Mixture of hydrocarbons Formed over millions of years, from dead animals and plants. Finite resource	<u>Fractional distillation</u>  Crude oil goes in at the bottom Small hydrocarbons evaporate first at the top (lower bp) Larger molecules evaporate later at the bottom (higher bp) Evaporate → Condensate → Collect As crude oil is heated, it begins to evaporate and its vapour begins to rise through the column, these vapours condense at the different fractions. (H) – Greater Intermolecular forces in large molecules mean higher boiling points.	<u>Homologous series trends</u>	<u>Hydrocarbons</u>
<u>Combustion</u> Complete- occurs when there is enough oxygen for a fuel to burn. A hydrocarbon will react with oxygen to produce carbon dioxide and water Hydrocarbon + oxygen → carbon dioxide + water Incomplete – occurs when there is not enough oxygen for a fuel to burn. The product in this reaction are water and poisonous carbon monoxide + soot Hydrocarbon + oxygen → carbon monoxide + water (+soot)	<u>Pollution</u> <u>Acid rain</u> Sulfur impurities from crude oil, forms sulfur dioxide which dissolve in rainwater to form sulfuric acid. Nitrous oxides NO _x from burning fuels in engines form nitrous acid from dissolving in rainwater.	<u>Alkanes</u> C_nH_{2n+2} For every carbon atom (n), there is double the number of hydrogens + 2 more.  Propane Single covalent bonds Saturated Bromine water stays brown.	<u>Alkenes</u> C_nH_{2n} For every carbon atom (n), there is double the number of hydrogens. double e, double bond, double hydrogens.  propene 1 double covalent bond Unsaturated Bromine water decolourises.

<u>Cracking</u>	<u>Alcohols & carboxylic acids (H)</u>	<u>Early atmosphere</u>	<u>Climate change</u> Green house gases Methane Carbon dioxide Water vapour Nitrous oxide
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Key Ideas
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Keywords and Definitions	
Hydrocarbons	Compounds made up of hydrogen and carbon atoms only.
Finite	Will run out
Fractional Distillation	
Fraction	Each fraction have hydrocarbons with similar chain lengths.