

<p>Name the first four alkanes</p>	<p>What is the functional group of an alkane?</p>
<p>What are the functional group of alkanes, alkenes, alcohols and carboxylic acids?</p>	<p>What is a hydrocarbon?</p>
<p>What conditions are used in cracking?</p>	<p>In fractional distillation of crude oil, what order are the fractions collected in from coolest at the top to hottest at the bottom?</p>
<p>What does unsaturated mean?</p>	<p>What is the chemical test for unsaturation (alkenes)?</p>

<p>Alkanes: C-C single bond</p> <p>Alkenes: C=C double bond</p> <p>Alcohols: C-O-H</p> <p>Carboxylic acids: CO<sub>2</sub>H</p>	<p>Methane, ethane, propane, butane</p>
<p>A compound that only contains carbon and hydrogen atoms</p>	<p>Alkanes: C<sub>n</sub>H<sub>2n+2</sub></p> <p>Alkenes: C<sub>n</sub>H<sub>2n</sub></p> <p>Alcohols: C<sub>n</sub>H<sub>2n+1</sub>OH</p> <p>Carboxylic Acids: C<sub>n</sub>H<sub>2n+2</sub>COOH</p>
<p>LPG, petrol, paraffin, diesel, heating oil, fuel oil, bitumen</p>	<p>High temperature (600 to 700 degrees)</p> <p>Hot catalyst of alumina or silica</p>
<p>Turns bromine water from orange to colourless</p>	<p>Contains a C=C dou- ble bond</p>

<p>How are the conditions for making addition polymers and condensation polymers different?</p>	<p>What monomers are proteins and carbohydrates made from?</p>
<p>What is a condensation reaction?</p>	<p>What are the monomers used to make DNA and what are the 3 parts that make them up?</p>
<p>What is the overall equation in a fuel cell?</p>	<p>What are the half equations in a fuel cell?</p>
<p>What are the advantages of fuel cells compared to batteries?</p>	<p>How are the names of the electrodes in a cell different than in electrolysis?</p>

<p>Proteins: amino acids</p> <p>Carbohydrates: simple sugars</p>	<p>Addition polymers: high pressure and a catalyst</p> <p>Condensation polymers: room temperature and pressure</p>
<p>Nucleotides:</p> <p>Phosphate group, a sugar and an organic base</p>	<p>When two molecules react together to give a large molecule and a small molecule (usually water)</p>
<p>Anode:</p> $2\text{H}_2 \rightarrow 4\text{H}^+ + 4\text{e}^-$ <p>Cathode:</p> $4\text{H}^+ + \text{O}_2 + 4\text{e}^- \rightarrow 2\text{H}_2\text{O}$	$2\text{H}_2 + \text{O}_2 \rightarrow 2\text{H}_2\text{O}$
<p>They are opposite to each other —in a cell, the positive electrode is called the cathode and the negative electrode is called the anode</p>	<p>The waste product is water, recharging time is smaller, more lightweight, less carbon dioxide emitted</p>