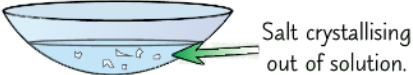
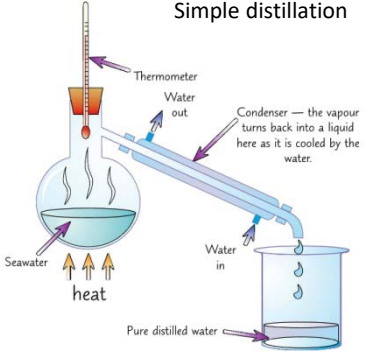

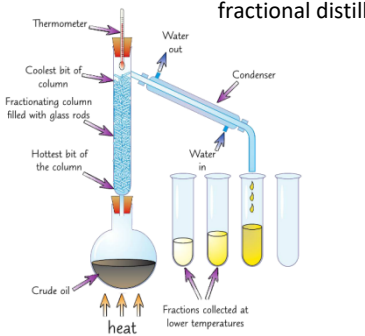
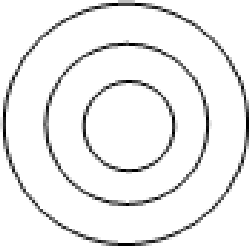
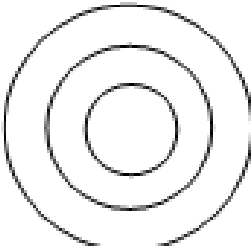
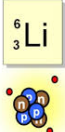


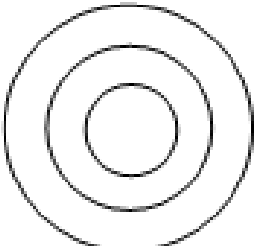


<p align="center">C1 Atomic Structure and the Periodic Table AQA Trilogy</p>	<p>Write the word equation for: Burning magnesium in air</p> <p>Can you write the balanced symbol equation?</p>	<p>Explain crystallisation as a separation technique</p> 	<table border="1"> <thead> <tr> <th>Name of particle</th> <th>Charge</th> <th>Relative Mass</th> </tr> </thead> <tbody> <tr> <td>Proton</td> <td></td> <td></td> </tr> <tr> <td>Neutron</td> <td></td> <td></td> </tr> <tr> <td>Electron</td> <td></td> <td></td> </tr> </tbody> </table>	Name of particle	Charge	Relative Mass	Proton			Neutron			Electron		
Name of particle	Charge	Relative Mass													
Proton															
Neutron															
Electron															
<p>Define the following terms:</p> <p>Atom</p> <p>Element</p> <p>Compound</p> <p>Mixture</p>	<p>Balance the symbol equations below:</p> $\text{H}_2\text{SO}_4 + \text{NaOH} \rightarrow \text{Na}_2\text{SO}_4 + \text{H}_2\text{O}$ $\text{Zn} + \text{O}_2 \rightarrow \text{ZnO}$ $\text{CH}_4 + \text{O}_2 \rightarrow \text{CO}_2 + \text{H}_2\text{O}$	<p>Draw a diagram to illustrate chromatography as a separation technique</p>	<p>(Mass number) 23 (Atomic number) 11 Na</p> <p>Number of protons =</p> <p>Number of neutrons =</p> <p>Number of electrons =</p>												
<p>Write the symbols for the following elements:</p> <p>Oxygen</p> <p>Carbon</p> <p>Sodium</p> <p>Magnesium</p> <p>Chlorine</p> <p>Copper</p>	<p align="center">Simple distillation</p> 	<p>Explain simple distillation as a separation technique, shown in the diagram</p>	<p>Describe the difference between the plum pudding and the nuclear model of an atom</p> 												
<p>Write the name of the compound:</p> <p>CO₂</p> <p>H₂O</p> <p>NaCl</p> <p>CuSO₄</p>	<p align="center">fractional distillation</p> 	<p>Explain fractional distillation as a separation technique</p>	<p>Where in an atom are the neutrons and proton?</p> <p>The number of protons = the number of _____</p> <p>Atomic number is the number of _____</p> <p>Mass number is the number of _____ + the number of _____</p> <p>Isotopes have a different number of _____</p>												

<h2 style="text-align: center;">C1 Atomic Structure and the Periodic Table AQA Trilogy</h2>	<p>In the periodic table, the elements are arranged in order of their _____ number</p> <p>Elements in the same group, have the same number of _____</p> <p>Groups go _____</p> <p>Periods go _____</p>	<p>When developing the periodic table, Why did Medeleev leave gaps?</p> <p>Approximately how many elements are in the periodic table?</p>	<p>Properties of metals</p> <ul style="list-style-type: none"> • • • • • 																
<p>Draw the electron structure for sodium</p> <div style="display: flex; align-items: center; justify-content: center;"> <div style="text-align: center; margin-right: 20px;"> <p>23 Na sodium 11</p> </div>  </div>	<p>What is group 1 also known as?</p> <p>As you go down group 1, what happens to the reactivity?</p> <p>How many electrons are in the outer shell of a group 1 metal?</p>	<table border="1" style="font-size: small; text-align: center;"> <tbody> <tr><td>7</td><td>Li</td><td>lithium</td><td>3</td></tr> <tr><td>23</td><td>Na</td><td>sodium</td><td>11</td></tr> <tr><td>39</td><td>K</td><td>potassium</td><td>19</td></tr> <tr><td>85</td><td>Rb</td><td>rubidium</td><td>37</td></tr> </tbody> </table> <p>Delete as appropriate:</p> <p>If you remove electrons from an atom is becomes positive/ negative</p> <p>If you add electrons to an atom it becomes positive/negative</p>	7	Li	lithium	3	23	Na	sodium	11	39	K	potassium	19	85	Rb	rubidium	37	<p>Properties of non-metals</p> <ul style="list-style-type: none"> • • • • •
7	Li	lithium	3																
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<p>Draw the electron structure for chlorine</p> <div style="display: flex; align-items: center; justify-content: center;"> <div style="text-align: center; margin-right: 20px;"> <p>35.5 Cl chlorine 17</p> </div>  </div>	<p>What is group 7 also known as?</p> <p>As you go down group 7, what happens to the reactivity?</p> <p>What happens to melting point and boiling point as you go down the group?</p> <p>How many electrons are in the outer shell of a group 7 element?</p>	<table border="1" style="font-size: small; text-align: center;"> <tbody> <tr><td>19</td><td>F</td><td>fluorine</td><td>9</td></tr> <tr><td>35.5</td><td>Cl</td><td>chlorine</td><td>17</td></tr> <tr><td>80</td><td>Br</td><td>bromine</td><td>35</td></tr> <tr><td>127</td><td>I</td><td>iodine</td><td>53</td></tr> </tbody> </table> <p>What is an isotope?</p> <div style="display: flex; justify-content: center; gap: 10px;"> <div style="text-align: center;"> <p>⁶₃Li</p>  </div> <div style="text-align: center;"> <p>⁷₃Li</p>  </div> <div style="text-align: center;"> <p>⁸₃Li</p>  </div> </div>	19	F	fluorine	9	35.5	Cl	chlorine	17	80	Br	bromine	35	127	I	iodine	53	<p>To work out the relative atomic mass using the abundance of isotopes we can use the following calculation:</p> $ \begin{aligned} &(\% \text{ of isotope 1} \times \text{mass of isotope 1}) \\ &+ \\ &(\% \text{ of isotope 2} \times \text{mass of isotope 2}) \\ &\div 100 \end{aligned} $
19	F	fluorine	9																
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<p>Draw the electron structure for chlorine</p> <div style="display: flex; align-items: center; justify-content: center;"> <div style="text-align: center; margin-right: 20px;"> <p>40 Ar argon 18</p> </div>  </div>	<p>What is group 0 also know as?</p> <p>In group 0, how many electrons are in the outer shell?</p> <p>How is boiling point affected as you go down the group?</p>	<table border="1" style="font-size: small; text-align: center;"> <tbody> <tr><td>4</td><td>He</td><td>helium</td><td>2</td></tr> <tr><td>20</td><td>Ne</td><td>neon</td><td>10</td></tr> <tr><td>40</td><td>Ar</td><td>argon</td><td>18</td></tr> <tr><td>84</td><td>Kr</td><td>krypton</td><td>36</td></tr> </tbody> </table> <p>Copper has two stable isotopes Cu-63 which has an abundance of 69.2% and Cu-65 which has an abundance of 30.8% Calculate relative atomic mass to 1dp.</p>	4	He	helium	2	20	Ne	neon	10	40	Ar	argon	18	84	Kr	krypton	36	<p>In any sample of Chlorine 25% will be ³⁷Cl and 75% ³⁵Cl. Calculate the relative atomic mass to 1dp.</p>
4	He	helium	2																
20	Ne	neon	10																
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