

C3 – Structure and bonding	
HT - Why do metals conduct heat and electricity?	They have delocalised electrons in their structures. They carry charge (current) through the metal. Also heat energy is transferred by them too.
Why can metals be easily bent and shaped?	They have layers that are able to slide over each other. This makes pure metals quite soft.
Why do metals have high melting and boiling points?	The metal ions which are positive and the delocalised electrons which are negative, attract to each other with strong electrostatic forces which take a lot of energy to break
What is an alloy?	It is a mixture of 2 or more different metals (sometimes carbon).
Why are alloys stronger than pure metals?	The different metals atoms are different sizes and this makes it more difficult for the layers to slide over each other.
AQA 5.2.2.5 POLYMERS	AQA 5.2.2.5 POLYMERS
What affects the properties of polymers?	What they are made from and the conditions under which they are made.
Why are polymers solid at room temperature?	The polymer molecules are held together by quite strong intermolecular forces
What are thermosoftening polymers?	They consist of tangled polymer chains.
What are thermosetting polymers?	They consist of polymer chains with cross links between them so they do not melt when heated.
AQA States of matter 5.2.2.1 and state symbols 5.2.2.2	AQA States of matter 5.2.2.1 and state symbols 5.2.2.2
Name the 3 states of matter	Solid, liquid and gas
What change of state happens at the melting point	Melting and freezing
What change of state happens at the boiling point	Boiling and condensing
How do you show solids, liquids and gases	<p>The diagram illustrates three states of matter using colored spheres. On the left, a solid is shown with red spheres packed in a neat, regular grid. In the middle, a liquid is shown with blue spheres in a disordered, close-packed arrangement. On the right, a gas is shown with yellow spheres scattered widely and randomly. Below each diagram are the labels 'solid', 'liquid', and 'gas' respectively. A watermark for 'www.chemistrytutorials.org' is visible across the diagrams.</p>
How does the strength of forces affect the change of state	The stronger the forces between particles – the higher the melting and boiling points
What are the limitations of the above models	There are no forces shown. All particles are shown as spheres and spheres are solid.
Identify the 3 state symbols used in chemical reactions	Solid - (s) Liquid - (l) Gas - (g) Aqueous solutions - (aq)