Chemistry - Year 10 Topic 2 Bonding, structure and properties part 2
Student checklist - Triples

	KS4 Science: Bonding, Structure and Properties	I can do this	Covered in Class	Strength ?	Revised it?	**Kerboodle Textbook page reference**
Covalent bonding including dot and cross	Define what a covalent bond is. Represent covalent bonding using dot and cross diagrams. Use different types of diagrams to illustrate single and multiple covalent bonds.					44-45
Properties of small molecules	Explain why molecules have relatively low melting and boiling points Explain how the size of a molecule affects its melting and boiling points Draw conclusions about the properties of molecules by graphing data					46-47
Large molecules and polymers.	Recall link between the properties of molecular substances and the molecular size. Describe what polymers are, and why they are useful. Make links between the properties and structures of different polymers.					46-47 (224-225 Triple only)
Carbon allotropes (Diamond, graphite, graphene and fullerenes)	Understand that giant covalent substances such as diamond, graphite, and silicon dioxide are solids with high melting points Explain the properties of diamond and graphite in terms of their structure and bonding. Compare the structures of diamond and graphite to graphene and fullerines					48-51
Metallic bonding, properties of metals,and alloys	Describe the structure of metals. Use the structure to explain why their properties. Compare the properties of metals with alloys.					52-53

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Alloys as useful materials (triple only)	Understand why metals are alloyed Give some examples of common alloys Interpret and evaluate composition and uses of alloys using data and information					222-223
Bulk and surface properties of nanoparticles - sizes and properties (triple only)	Describe nanotechnology as the use and control of objects about the size of a molecule. Use standard form to talk about the size of nanoparticles. Explain that nanoparticles have special properties partly because of their large surface areas.					56-57
Bulk and surface properties of nanoparticles - Uses (triple only)	Give examples of some uses of Nanotechnology Explain that there may be risks associated with nanoparticles. Evaluate the use of nanoparticles for specific purposes.					58-59