Chemistry - Year 10 Topic 2 Bonding, Structure and Properties
Student checklist (trilogy)

	KS4 Science: Bonding, Structure and Properties	I can do this	Covered in Class	Strength ?	Revised it?	**Kerboodle Textbook page reference**
Review of previous test - work on targets	0					
States of matter	Use models to represent particles in a solid, liquid and gas. Describe why substances change state in terms of particles and forces. Use these ideas to explain the shape of a cooling curve.					36-37
Practical investigation to investigate different properties	Describe what a compound is and how they form from elements. Show how atoms can form positive and negative ions. Use diagrams to model how this happens.					38-39
Ionic bonding - including dot and cross	Use the Periodic Table to predict which ions elements will form. Draw dot and cross diagrams to illustrate how atoms form ions, and ionic compounds form. Use information about ions to predict the empirical formula of ionic compounds.					40-41
Structure and properties of ionic compounds	Describe the structure of ionic compounds. Describe, in terms of ions, why ionic compounds can conduct electricity Explain why ionic compounds cannot conduct electricity when solid (but they can when melted/ in solution)					42-43
Review lesson - mid topic assessment (trilogy only)	• • •					

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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