

Subject	Year	Term
Science	11	1
Topic		
11C1 Structure and Bonding		
Content (Intent)		
<p>Prior Learning (Topic) 7C1 Physical changes & the particle model (lessons 1-8 and 10-12) 7C2 Atoms, Elements & Mixtures (lesson 1) 8C1 - properties of elements(lesson 1, 4, 5, 10 and 13), C1 Atomic structure and the periodic table (lesson 1, 5 and 13)</p>		
<p>Ionic bonding - describe how ionic compounds are formed and draw dot and cross diagrams. Ionic compounds – explain the properties of ionic compounds in terms of their bonding and structure Covalent bonding - describe covalent bonding and draw dot and cross diagrams. Covalent compounds – explain the properties of in terms of their bonding and structure (for both simple molecular and giant covalent substances) Polymers - explain the properties of polymers. Metals and alloys – describe metallic bonding and explain the properties of metals and their alloys in terms of structure and bonding. Graphene and fullerenes - explain the properties of graphene in terms of its structure and bonding.</p>		
<p>Future Learning (Topic) A level chemistry OCR A 2.2 Electrons, bonding and structure and 3.1 The Periodic table.</p>		
How will knowledge and skills be taught? (Implementation)	How will your understanding be assessed & recorded (Impact)	
<p>Practical work Investigating the properties of ionic compounds</p> <p>Written Worksheets 11C3 lesson 1-7. Explanations of the properties of different substances in terms of their structure and bonding .</p>	<p>- 2 x standard homeworks (Level given. Written feedback. Response expected.)</p> <p>-Covalent dot and cross diagram: in exercise book. Marked and feedback given. -Diagram of metallic bonding: in exercise book. Marked and feedback given.</p>	
How can parents help at home?		
<p>Look at the topic specific resources on the VLE Use appropriate youtube channels: cognito, primrosekitten, khan academy, freesciencelessons. Take an interest! Ask your children what they have learnt and be curious about their learning.</p>		
Helpful further reading/discussion		
<p>Reading</p>	<p>Vocabulary Lists</p> <p>Covalent Ionic Metallic Giant structure Lattice Small molecules Intermolecular forces Delocalised electrons Graphene</p>	<p>Careers Links</p> <p>Material scientist.</p>