Barnsley Academy – Y10- C2- Bonding Week 2 Curriculum
Scheme of Work – 2023-24

Term – Week …				
	1	2	3	4
Lesson Focus	Simple and giant covalent substances	Diamond and Graphite	Metallic Bonding	
Prerequisite Knowledge	- Covalent bonding - Melting and boiling - Forces between molecules	- Giant covalent structures - Explanations for melting points - Explanations for conducting electricity	- How metals react (Lose electrons) -	
Core Knowledge	• Explain why some covalent substances form giant structures and some form molecules • Describe some properties of each type • Explain the properties of each type of substances in terms of bonding • Describe the structure of a polymer and explain why they are solids at room temperature	• Compare the properties of diamond, graphite, fullerenes and graphene • Explain the properties using knowledge of the bonding and structure • Relate properties of these carbon allotropes to their uses	• Describe the structure and bonding in metals • Describe and explain the properties of metals • Describe the structure of an alloy • Explain why alloys are harder than pure metals • Predict the type of bonding present given melting and boiling point data	
Expert Model /Guided Practice/Agreed Approach (Procedural Knowledge)	- Comparison skills -			
Independent Practice	IP1- Explain why some covalent substances are simple or giant IP2- Comparing properties of simple and giant covalent substances IP3- Explaining difference in properties IP4- Covalent properties exam q	IP1- Comparing properties of Diamond and Graphite IP2- Explaining properties exam q	IP1- Describe the structure of metals IP2- Explain why metals conduct electricity IP3- Comparing metals and alloys exam q IP4- Identifying type of bonding exam q	

Assessment (Informal/Formal)	- Exam q - Targeted questioning - Whiteboard checks - Circulation	- Exam q - Targeted questioning - Whiteboard checks - Circulation	- Exam q - Targeted questioning - Whiteboard checks Circulation	
Resources				
Specific SEN(D)/EAL support				