Science Year 8 20 (C2.3) Metals and Acids

Year group: 8	
Prior learning- linked to National curriculum	Students have studied module 2 (Particles and their behaviour), module 5 (Elements, atoms and compounds), module 7 (Reactions) and module 11 (Acids & Alkalis) last year. This year they have studied module 14 (Periodic Table) and module 18 (Separation Techniques). Students have been taught: 1. 2. 3. 4. 5. 6.
Covid gaps	KS2 understanding of particles and how they behave. This should have been addressed in year 7. Lacking some practical skills due to lack of full time specialist teacher and COVID.
Rationale / Misconceptions	Rationale - This module provides underpinning knowledge for the following KS4 topics: ● Topic C1: Particles ● Topic C2: Elements, compounds and mixtures ● Topic C3: Chemical reactions ● Topic C4: Predicting and identifying reactions and products ● Topic C5: Monitoring and controlling chemical reactions Misconceptions - Students often confuse the Some misconceptions that students have about
Vocabulary:	**Keywords** - carbon fibre, ceramic, composite, displace, displacement reaction, metal, natural polymer, ore, polymer, reactive, reactivity series, state symbol, synthetic polymer, thermite reaction.

	20.1 Glossary
Cultural Capital:	
Key assessments- name the assessments	Big question (6 mark question) Mid point 20.5b question led lesson Explain why some metals can be extracted from compounds by heating with carbon, and why some cannot. Include examples to illustrate your answer. (6 marks, QWC) End of topic test - A range of multiple choice, short answer and a long answer question. Metals and Acids End of Module Test.pdf
What do children know/ can do now (EDSM)	Module 20: Marking grid-Metals and acids Test marks- Emerging - 20% Developing - 40% Securing - 60% Mastered - 80% Identify key apparatus in an investigation. Recall the state symbols. State the properties of ceramics. Describe the test for hydrogen gas. Draw a bar graph correctly. Describe some safety precautions when using acids. Name the products formed in a given reaction. Write a word equation for an oxidation reaction. Draw a suitable table of results for a practical. Describe an experiment that will show which of the metals is most reactive, and which is least reactive.