

Islip Manor High School

Scheme of Learning Overview



This scheme of learning has been designed to ensure that you make progress, develop, and master key knowledge, skills, and ideas through academically rich content that reflects, values, and celebrates the diverse experiences, identities, and contributions of our school community.

Year group: 8	Term: Spring	Unit duration: 4-5 weeks	Number of lessons: 8		Unit title: Metal and Acids
Unit assessment: End of topic test				Fertile question: Why is the Statue of Liberty green given that she is made of brown copper (no paint has been used)?	
Key skills/ concepts/ prior knowledge that students should have when starting this unit:				Start RAG	End RAG
1. Acids have a pH less than 7. 2. Hazard symbols (corrosive, irritant). 3. The general equation: Acid + Alkali → Salt + Water. 4. Metals are generally shiny and hard. 5. Mass is conserved in a chemical reaction.					
Key skills/concepts/knowledge that students should cover				Start RAG	End RAG
1. Metal + Acid: State the general word equation (Metal + Acid → Salt + Hydrogen). 2. Hydrogen Test: Describe the "squeaky pop" test for hydrogen gas. 3. Metal + Oxygen: Describe the formation of metal oxides (Oxidation). 4. Metal + Water: Compare how different metals react with water. 5. Reactivity Series: Rank metals based on their reactions with acid, water, and oxygen. 6. Displacement: Predict and observe reactions where a more reactive metal takes the place of a less reactive one. 7. Extraction of Metals: Explain why some metals are found as ores and others as pure elements. 8. Ceramics: Describe the properties and uses of ceramic materials. 9. Polymers: Explain what a polymer is and give examples (natural vs. synthetic). 10. Composites: State that composites are made of two or more materials with improved properties.					
Stretch. Key skills/concepts/knowledge that students should cover Write balanced symbol equations for the reaction of magnesium and hydrochloric acid.					
				Literacy. Key vocabulary/subject terminology that students should cover Reactivity Series, Displacement, Oxidation, Rusting, Salt, Hydrogen, Exothermic, Ore, Extraction, Ceramic, Polymer.	
				Suggested materials teachers could/should use: Ks3 Activate 2 textbook Key home learning tasks students should complete: Home learning booklet	

