

Prior Learning				
Lesson Number	AQA Spec	Title	Content	Assessment/ Homework
1	4.1.2.3	Metals and non-metals	<ul style="list-style-type: none"> Review the physical properties of metals and non-metals. Compare oxides of metals and non-metals. Make predictions about unknown metals and non-metals. 	
2.	4.4.1.1	Metal Oxides	<ul style="list-style-type: none"> Explore what happens when metals burn or corrode. Classify chemical changes as oxidation or reduction. Review the properties of metal oxides. Students should be able to explain reduction and oxidation in terms of loss or gain of oxygen. 	
3	4.4.1.2	Reactivity series	<ul style="list-style-type: none"> Compare the reactivity of metals. Observe some reactions between metal atoms and metal ions. Consider why some metals are more reactive than others 	
4	4.4.1.3	Extraction of metals	<ul style="list-style-type: none"> Find out where metals come from. Extract iron from its oxide using carbon. Consider how other metals are extracted from their ores. 	
5	4.4.1.4	Oxidation and reduction in terms of electrons	<ul style="list-style-type: none"> Observe some reactions between metal atoms and metal ions. Learn to write ionic equations and half equations. Classify half equations as oxidation or reduction. 	
6	4.4.2.4	Acids and pH	<ul style="list-style-type: none"> Estimate the pH of solutions. Identify weak and strong acids and alkalis. Investigate pH changes when a strong acid neutralises a strong alkali. 	

7	4.4.2.6	Strong and weak acids	<ul style="list-style-type: none"> Explore the factors that affect the pH of an acid. Find out how the pH changes when an acid is diluted. Find out how the concentrations of solutions are measured. 	
8	4.4.2.2 4.4.2.3	Neutralisation of acids and salt production	<ul style="list-style-type: none"> React an acid and an alkali to make a salt. Predict the formulas of salts. Write balanced symbol equations 	
9		RP: preparing a pure, dry sample of a salt from an insoluble oxide or carbonate	<ul style="list-style-type: none"> React a carbonate with an acid to make a salt. Describe each step in the procedure. Determine the purity of the product. 	
10	4.4.3.1 4.4.3.2	The process of electrolysis	<ul style="list-style-type: none"> Explore what happens when a current passes through a solution of ions. Find out what an electrolyte is and what happens when it conducts electricity. Find out how electricity decomposes compounds. 	
11	4.4.3.3	Using electrolysis to extract metals	<ul style="list-style-type: none"> Review the connection between the reactivity series and the ways metals are extracted. Consider how aluminium is extracted from aluminium oxide. Learn the oxidation and reduction reactions involved. 	
12	4.4.3.4 4.4.3.5	Electrolysis of aqueous solutions	<ul style="list-style-type: none"> Investigate the products formed when copper sulphate is electrolysed Predict what products other solutions will give Write half equations for reactions at electrodes (Higher tier only) 	Assessment: 25 mark multiple choice quiz
End of Unit test				
Where we will use these ideas again				