Ridgeway High School

Y11 GCSE Science Acids and Alkalis

11.1.2

This unit I will be learning about acids and alkalis	The key words I will learn this unit are…
This unit I am learning: • How substances are classified by acids and alkalis • How indicators are used • To prepare a soluble salt from an insoluble base • The process of neutralisation **By the end of this unit I will be able to:** • Recall if substances are acids and alkalis by using the Ph scale • Compare the use of different indicators • Describe the difference between weak and strong acids • Describe and investigate neutralisation • Prepare insoluble salt from soluble base • Identify is a substance is soluble or insoluble • Construct neutralisation equations	Acid Alkali Base Hydrogen Hydroxide Indicator Phenolphthalein Universal indicator Soluble Insoluble Concentrated Dilute Hydrogen Neutralisation

Week's Learning	Literacy Links	100% Sheet Homework
Week 1 • Describe why hazard symbols are used • Recall some common acids and alkalis • Use and interpret the p H scale • Describe what the p H tells us about the ions in a solution • Compare the effects of acids and alkalis on some common indicators • **Explain the difference between a concentrated and a weak solution** • **Calculate dilution factors**	**I will use these literacy skills…** Comparison of different indicators	**I will complete this home learning…** MCQs
Week 2 • Describe what happens in a neutralisation reaction • Write an ionic equation for neutralisation • Investigate neutralisation between calcium oxide and hydrochloric acid • Describe the stages in preparing a soluble salt from an insoluble base • Diagnose my strengths and weaknesses so far	Method for preparing copper sulphate crystals	Spelling test
Week 3 • Construct equations for metals and acids, metal oxides and acids and metal carbonates and acids • Balance chemical equations • Describe the terms alkali and base. • Recall the rules for solubility of common substances in water • Investigate how to prepare a pure, dry insoluble salt • Predict what precipitates will be formed in reactions	Method for preparing a pure, dry soluble salt	Exam Qs

Resources to support:
www.bbc.co.uk/bitesize
www.getrevising.com
Tassomai

Social, Moral, Spiritual, Cultural and British Values linked to this learning programme:
Students will be aware at the dangers of acids and alkalis – this includes making them aware of the increased incidents of acid attacks in the UK. Students will have to work together to carry out practical investigations promoting social skills.

Assessment: All students will complete at least 1 diagnostically marked 6-mark exam question on Natural Selection