Edexcel International GCSE Chemistry 4CH1 Learning Plan

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| **Unit: 2. Inorganic Chemistry** | | **Chapter: 17. Acids, Bases and Salt Preparations** | | **Hours: 4** |
| Content coverage | Learning outcomes | Resources | Assessment | |
| **Section 2: Inorganic chemistry**  **(g) Acids, bases and salt preparations** | 2.34 know the general rules for predicting the solubility of ionic compounds in water:   * common sodium, potassium and ammonium compounds are soluble * all nitrates are soluble * common chlorides are soluble, except those of silver and lead(II) * common sulfates are soluble, except for those of barium, calcium and lead(II) * common carbonates are insoluble, except for those of sodium, potassium and ammonium * common hydroxides are insoluble except for those of sodium, potassium and calcium (calcium hydroxide is slightly soluble)   2.35 understand acids and bases in terms of proton transfer  2.36 understand that an acid is a proton donor and a base is a proton acceptor  2.37 describe the reactions of hydrochloric acid, sulfuric acid and nitric acid with metals, bases and metal carbonates (excluding the reactions between nitric acid and metals) to form salts  2.38 know that metal oxides, metal hydroxides and ammonia can act as bases, and that alkalis are bases that are soluble in water.  2.39 describe an experiment to prepare a pure, dry sample of a soluble salt, starting from an insoluble reactant  **2.40C describe an experiment to prepare a pure, dry sample of a soluble salt, starting from an acid and alkali**  2.42 *practical: prepare a sample of pure, dry hydrated copper(II) sulfate crystals starting from copper(II) oxide.*  **2.41C describe an experiment to prepare a pure, dry sample of an insoluble salt, starting from two soluble reactants** | Video: Section 4 Lesson 1 – 5:01 to 16:12  Powerpoint: Section 4 Lesson 1 – slides 17 to 51  Textbook pages:  Page 173 – Salts  Page 174 – Reactions of acids  Page 174 – Reactions involving magnesium and acids  Page 175 – Reactions involving zinc and acids  Page 176 – Bases  Page 176 – Bases and alkalis  Page 178 – Salt preparations  Page 179 – Making soluble salts (except sodium, potassium and ammonium salts)  Page 180 – Making magnesium sulphate crystals  Page 181 – Making sodium, potassium and ammonium salts  Page 183 – Making insoluble salts  Page 184 – What do we mix together to make insoluble salts?  Page 185 – Summarising the methods of making salts  Page 185 – Theories of acids and bases | Pages 187 – 189 Qs (1) to (10)  Chapter 17 Answers to textbook questions  Unit 2-17 Acids, Bases and Salt Preparations exam question - pdf  Unit 2-17 Acids, Bases and Salt Preparations exam question mark scheme – pdf  Section B10 - Talking paper video | |

Videos – [www.igcsesciencecourses.com](http://www.igcsesciencecourses.com)

Textbook Ref: Edexcel International GCSE (9-1) Chemistry Student Book - Pearson (Clark, Owen and Yu)