Edexcel International GCSE Chemistry 4CH1 Learning Plan

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|  **Unit: 2. Inorganic Chemistry** | **Chapter: 14. Reactivity Series** | **Hours: 4** |
| Content coverage | Learning outcomes | Resources | Assessment |
| **Section 2: Inorganic chemistry**(d) Reactivity series | 2.15 understand how metals can be arranged in a reactivity series based on their reactions with:* water
* dilute hydrochloric or sulfuric acid

2.16 understand how metals can be arranged in a reactivity series based on their displacement reactions between:* metals and metal oxides
* metals and aqueous solutions of metal salts

2.17 know the order of reactivity of these metals: potassium, sodium, lithium, calcium, magnesium, aluminium, zinc, iron, copper, silver, gold2.21 *practical: investigate reactions between dilute hydrochloric and sulfuric acids and metals (e.g. magnesium, zinc and iron).*2.18 know the conditions under which iron rusts2.19 understand how the rusting of iron may be prevented by:* barrier methods
* galvanising
* sacrificial protection

2.20 in terms of gain or loss of oxygen and loss or gain of electrons, understand the terms:* oxidation
* reduction
* redox
* oxidising agent

reducing agent, in terms of gain or loss of oxygen and loss or gain of electrons. | Video: Section 2 Lesson 4Powerpoint: Section 2 Lesson 4Textbook pages:Page 146 – Displacement reactions involving metal oxidesPage 147 – Oxidation and reductionPage 148 – Displacement reactions involving solutions of saltsPage 149 – The reaction between copper and silver nitrate solutionPage 150 – Reactions of metals with waterPage 152 – Reactions of metals with dilute acidsPage 154 – A general summaryPage 155 – Finding the approximate position of a metal in the reactivity series using water and dilute acidsPage 155 – Making predictions using the reactivity seriesPage 156 – Rusting of iron | Pages 157 – 159 Qs (1) to (10)Chapter 14 Answers to textbook questionsUnit 2-14 The Reactivity Series exam question - pdfUnit 2-14 The Reactivity Series exam question mark scheme – pdfSection B8 - 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)