Edexcel iGCSE Chemistry 4CH0 Learning Plan

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| **Section E25: Energy Calculations** | | |
| Specification | Resources | Assessment |
| 4.10 understand that chemical reactions in which heat energy is given out are described as exothermic and those in which heat energy is taken in are endothermic  4.11 describe simple calorimetry experiments for reactions such as combustion, displacement, dissolving and neutralisation in which heat energy changes can be calculated from measured temperature changes  **4.12 calculate molar enthalpy change from heat energy change**  4.13 understand the use of ΔH to represent enthalpy change for exothermic and endothermic reactions  4.14 represent exothermic and endothermic reactions on a simple energy level diagram  4.15 understand that the breaking of bonds is endothermic and that the making of bonds is exothermic  **4.16 use average bond energies to calculate the enthalpy change during a simple chemical reaction** | Video: Section 4 – Lesson 2 – Energy in Reactions  Powerpoint: Section 4 Lesson 2 - Energetics  Textbook: Ch.25 – Energy calculations  Page 202 – Calculations involving bond energies  Page 204 – Experimental work  Page 208 – End of Chapter Checklist  Edexcel iGCSE Chemistry Student Checklist Section E25.doc | Textbook  Page 208 – Questions (1) to (2)  Textbook answers (pdf)  Talking paper – Edexcel Chemistry Section E25 – Energy Calculations (mp4)  Section E25 Exam Question –. (pdf)  Section E25 Exam Question – mark scheme. (pdf) |

**Jim Clark video clips:** [**http://www.chemguide.co.uk/igcse/chapters/chapter25.html**](http://www.chemguide.co.uk/igcse/chapters/chapter25.html)

Videos – www.igcsesciencecourses.com

Textbook Ref: Edexcel International GCSE Chemistry Student Book - Clark

DVD Video Clips – see resource DVD in textbook.