Edexcel iGCSE Biology 4BI0 Learning Plan

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| **Section C10: Plants and Food** |
| Specification | Resources | Assessment |
| 2.17 describe the process of photosynthesis and understand its importance in the conversion of light energy to chemical energy 2.18 write the word equation and the balanced chemical symbol equation for photosynthesis 2.19 understand how varying carbon dioxide concentration, light intensity and temperature affect the rate of photosynthesis 2.20 describe the structure of the leaf and explain how it is adapted for photosynthesis 2.21 understand that plants require mineral ions for growth and that magnesium ions are needed for chlorophyll and nitrate ions are needed for amino acids 2.22 describe experiments to investigate photosynthesis, showing the evolution of oxygen from a water plant, the production of starch and the requirements of light, carbon dioxide and chlorophyll 2.39 understand gas exchange (of carbon dioxide and oxygen) in relation to respiration and photosynthesis 2.40 understand that respiration continues during the day and night, but that the net exchange of carbon dioxide and oxygen depends on the intensity of light 2.41 explain how the structure of the leaf is adapted for gas exchange 2.42 describe the role of stomata in gas exchange 2.43 describe experiments to investigate the effect of light on net gas exchange from a leaf, using hydrogen-carbonate indicator | Video: Biology – Section 2 – Lesson 2 – Nutrition – Flowering PlantsBiology – Section 2 – Lesson 4 Respiration and Gaseous Exchange; 15.52 to endPowerpoint: Biology Section 2 Lesson 2 Biology Section 2 Lesson 4 – Slide 59 to endTextbook: Ch.10 – Plants and FoodPage 109 – Plants make starchPage 111 – Where does starch come from?Page 112 – PhotosynthesisPage 114 – Photosynthesis and RespirationPage 115 – Investigating the effect of light on gas exchange by a leafPage 116 – Factors affecting the rate of photosynthesisPage 117 – The Plant’s uses for glucosePage 118 – Mineral nutritionPage 120 – End of Chapter Check ListChapter 10 Plants and Food - Student checklist.docDVD Revision check list<http://biology-igcse.weebly.com/summary2.html><http://biology-igcse.weebly.com/the-equation-for-photosynthesis.html><http://biology-igcse.weebly.com/photosynthesis-investigations---principles-and-starch-test.html><http://biology-igcse.weebly.com/effect-of-light-intensity-on-the-rate-of-photosynthesis.html><http://biology-igcse.weebly.com/effect-of-temperature-on-the-rate-of-photosynthesis.html><http://biology-igcse.weebly.com/effect-of-carbon-dioxide-on-the-rate-of-photosynthesis.html><http://biology-igcse.weebly.com/limiting-factors-in-photosynthesis.html><http://biology-igcse.weebly.com/leaf-structure.html><http://biology-igcse.weebly.com/plants-mineral-requirements-and-fertilisers.html> | TextbookPage 120 – 121 Questions 1 to 7Textbook Answers (PDF)DVD Multiple choice testSection C10 - exam question - pdfSection C10 - exam question mark scheme – pdfTalking paper video – Section C10 Plants and Food |

Videos – www.igcsesciencecourses.com

Textbook Ref: Edexcel International GCSE Biology Student Book - Pearson (Bradfield and Potter)

DVD Video Clips – see resource DVD in textbook.