Edexcel iGCSE Biology Checklist

Section C10: Plants and Food

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| ***I can*** | ☺ | 😐 | ☹ |
| describe the process of photosynthesis and understand its importance in the conversion of light energy to chemical energy |  |  |  |
| write the word equation and the balanced chemical symbol equation for photosynthesis |  |  |  |
| understand how varying carbon dioxide concentration, light intensity and temperature affect the rate of photosynthesis |  |  |  |
| describe the structure of the leaf and explain how it is adapted for photosynthesis |  |  |  |
| understand that plants require mineral ions for growth and that magnesium ions are needed for chlorophyll and nitrate ions are needed for amino acids |  |  |  |
| 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 |  |  |  |
| understand gas exchange (of carbon dioxide and oxygen) in relation to respiration and photosynthesis |  |  |  |
| 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 |  |  |  |
| explain how the structure of the leaf is adapted for gas exchange |  |  |  |
| describe the role of stomata in gas exchange |  |  |  |
| describe experiments to investigate the effect of light on net gas exchange from a leaf, using hydrogen-carbonate indicator |  |  |  |
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