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| **Consolidation checklist (Lessons 27–35)** | | | | | | | |
| Look at the points in each topic. Decide if you fully understand (C:\Users\005228\Downloads\Fw_ Image\1.png) partly understand (C:\Users\005228\Downloads\Fw_ Image\2.png), or do not understand (C:\Users\005228\Downloads\Fw_ Image\3.png) each point and tick () the relevant column. This will show you the areas that you need to work on after this lesson. | | | | | | | |
| **Topic** | **Specification reference** | | **C:\Users\005228\Downloads\Fw_ Image\4.png** |  | **C:\Users\005228\Downloads\Fw_ Image\5.png** | **Lesson number** | **Student Book pages** |
| **Photosynthesis** | **A** | understand the process of photosynthesis and its importance in the conversion of light energy to chemical energy |  |  |  | 27 | 135–138 |
| **B** | know the word equation and the balanced chemical symbol equation for photosynthesis |  |  |  | 27 | 138 |
| **C** | understand how varying carbon dioxide concentration, light intensity and temperature affect the rate of photosynthesis |  |  |  | 28 | 140–143 |
| **D** | describe the structure of the leaf and explain how it is adapted for photosynthesis |  |  |  | 29 | 139–140 |
| **E** | understand that plants require mineral ions for growth, and that magnesium ions are needed for chlorophyll and nitrate ions are needed for amino acids |  |  |  | 31 | 144–146 |
| **F** | *practical: investigate photosynthesis, showing the evolution of oxygen from a water plant, the production of starch and the requirements of light, carbon dioxide and chlorophyll* |  |  |  | 30 | 136,  141–144  **Lab Book**  25−30 |
| Problems with **Photosynthesis**? Try questions 1, 6, 7 and 10 on pp. 148–151 of the **Student Book**. | | | | | | | |
| **Increasing crop yields** | **A** | describe how glasshouses and polythene tunnels can be used to increase the yield of certain crops |  |  |  | 32 | 206–207 |
| **B** | understand the effects on crop yield of increased carbon dioxide and increased temperature in glasshouses |  |  |  | 32 | 206–207 |
| **C** | understand how the use of fertiliser can increase crop yield |  |  |  | 31 | 207–208 |
| **D** | understand the biological consequences of eutrophication caused by leached minerals from fertiliser |  |  |  | 31 | 217−218 |
| Problems with **Increasing crop yields**? Try question 7 on p.150, question 4 on p. 219 and questions 8 and 10a on p. 220 of the **Student Book**. | | | | | | | |
| **Gas exchange in plants** | **A** | understand the role of diffusion in gas exchange |  |  |  | 33 | 139–140 |
| **B** | understand gas exchange (of carbon dioxide and oxygen) in relation to respiration and photosynthesis |  |  |  | 33 | 139–140 |
| **C** | understand how the structure of the leaf is adapted for gas exchange |  |  |  | 34 | 139–140 |
| **D** | describe the role of stomata in gas exchange |  |  |  | 34 | 139, 161 |
| **E** | understand how respiration continues during the day and night, but that the net exchange of carbon dioxide and oxygen depends on the intensity of light |  |  |  | 33 | 138,  140–141 |
| **F** | *practical: investigate the effect of light on net gas exchange from a leaf, using hydrogencarbonate indicator* |  |  |  | 35 | 142–142  Lab Book  38−41 |
| Problems with **Gas exchange in plants**? Try questions 2, 6 and 7 on pp. 148–151 of the **Student Book**. | | | | | | | |

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| **NEXT STEPS?** |
| Which areas do you feel confident about? |
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| Write down any specific areas that you need to improve and what you might do. |
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