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| Date | Time | Class/Set | | Lesson No | No. in class | Room |
| Friday 1st February | 11:35 | 10X | | 1 | 28 | S224 |
| **Your targets from weekly training meeting relevant to this lesson** | | | | | | |
| TS7 – keep low level disruption to a minimum.  TS6 – use AfL appropriately | | | | | | |
| **Background of the class context of your teaching and learning plan and your expectations** | | | | | | |
| Targeted Support: | | | Additional Adults: | | | |
| Relevant Curriculum Statements | | | | | | |
| Students should be able to describe photosynthesis as an endothermic reaction in which energy is transferred from the environment to the chloroplasts by light.  Students should be able to explain the effects of temperature, light intensity, carbon dioxide concentration, and the amount of chlorophyll on the rate of photosynthesis.  Students should be able to identify some uses of glucose from photosynthesis. | | | | | | |
| **Pre-supposed knowledge / Possible Concepts / Misconceptions / Alternative Ideas** | | | | | | |
| Students already know the basic structure and functions of a leaf, and may be able to speculate how it is adapted for photosynthesis.  Students have previously met the word equation for photosynthesis, but will need to be taught the symbol equation and how to balance it. | | | | | | |
| **Learning points:** | | | | | | |
| 1 Be able to use word and symbol equations to describe photosynthesis | | | | | | |
| 2 Explain why plants produce glucose | | | | | | |
| 3 Describe how leaves are adapted for photosynthesis | | | | | | |
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| **Time** | **Teacher Activity**  What are you doing? Additional adults in room? | **Pupil Activity**  What are the pupils doing? **Evidence of progress? Refer to Learning Points.** |
| 11:35 | Do Now – structure and function of the leaf handout. Hand this out. Offer help where necessary. | Students complete handout and stick into their books. |
| 11:45 | Go through answers. Show slide of plant and talk through process of photosynthesis. Ask for word equation of photosynthesis. Write this on the board. Elicit the symbol equation (they should at least know water, oxygen and carbon dioxide). | Students offer word equation for photosynthesis. They write down both the word equation and the symbol equation. |
| 11:50 | Show the slide with equations on it and ask about whether they think it is endothermic or exothermic. (exo = expels energy; endo = uses up energy). Have them copy the explanation of photosynthesis into their books. Instruct them to try the extension if they have finished. |  |
| 11:55 | Go through why glucose is important quickly then watch the video, instructing students to write the five uses for glucose in their books as they watch it. Instruct them that they have another 3 minutes to write a paragraph about why glucose is so important. | Students watch the video and write down the five uses for glucose. |
| 12:05 | Look at picture of plant again and question students as to what might affect the rate of photosynthesis. Let them discuss for 10secs then get ideas. Give them the three factors, then draw a graph for each on the board. Have the students copy the graphs into their books. Encourage students to have a go at the challenge question. |  |
| 12:15 | Give each pair of students a leaf and have them inspect it and identify ways in which it is adapted for photosynthesis. Give a couple of minutes for this then feed back and have them write the main points in their books. |  |
| 12:20 | Set homework and pack away. |  |
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| **Evidence of Pupil Progress**  DO NOW activity, they will demonstrate their existing knowledge of plant cells. Targeting questions to see how their current understanding of photosynthesis is. Opportunity to push them to be able to think of the equation themselves. Use video resource to identify information and this will be evidenced through questioning and through work in their books. Homework set so assess progress. | | |
| **Resources needed:** | | |
| **Health and Safety issues and Risk Assessment**: | | |
| **Homework set:**  Exam style questions due 8th Feb | | |

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| **Evaluation (**after every lesson**)** |
| **Strengths / Areas for Development** |
| **Evidence** |
| **Actions for future plans** |
| **Reflection** (once per week**)….** |