NHSG Key Stage 3 Unit Overview for Y7 Science: Plants

Scheme of Learning	Y7 Science: Plants
Learning Outcomes	1. Identify the organ structures of a plant. 2. Identify the structures of a leaf and describe how those structures are beneficial to the leaf's function. 3. State the equation for photosynthesis and describe why it is important to the function of a plant. 4. Describe and explain how water is taken in by a plant and moves through a plant. 5. Describe and explain the role of stomata in the function of a plant. 6. Identify the structures of a flower and describe the functions of those structures. 7. Suggest mechanisms of pollen transfer between plants 8. Explain how fertilisation occurs in plants. 9. Identify the structures of a seed and explain their functions. 10. Suggest how the adaptations of seeds can aid the dispersal of those seeds.
Key Question	What are the key structures, adaptations and functions of plants?
Knowledge	1. The key structures of the plant, including detail on the leaf, flower and seed. 2. The mechanisms by which plants supply themselves and utilise those resources. 3. The mechanisms of plant reproduction. 4. Using microscopes to observe the structures of plants in detail. 5. Utilising the scientific method to plan an investigation into plant function.
Ongoing Assessment	1. Retrieval questions at the start of every lesson. 2. Worksheets for all major concepts to be used for self and peer assessment. 3. Revision checklist at beginning of handout pack and retrieval questions at the end.
Key Assessment	Assessment of microscope drawings End of topic test, 30 marks in 35 minutes. Including a mixture of MCQ, short answer and long answer questions. With mark schemes moderated by the team, with notes on standardised language.
Clear sequencing of content	The formation of key concepts in Biology, building upon the knowledge of cell structures developed in the first topic of the year and providing context for that knowledge. The topic will also develop key practical skills including the application of the scientific method

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	Key concepts of this topic inform the development of specific knowledge at KS4 and KS5, including the various structures of the plant cell and mechanisms of photosynthesis, the function of tissue types such as xylem and phloem or the growth responses of plants.
Link to careers	The potential for career options in botany or the knowledge of the importance of plants to the development of new medicine or biotechnology.
Diversity and Inclusion	Include the importance of plants in medicine to a variety of cultures.
Support	Handout packs including learning checklist provided for every student, some students are provided with CGP revision workbooks.
Challenge	Stretch challenge question on end of topic test. Stretch and challenge question sheet.