NHSG Key Stage 3 Unit Overview for Y7 Science: Cells and Organisms

Scheme of Learning Title (including KS3 Year Group)	**Y7 Science: Cells and Organisms**
Learning Objectives	1. Describe the structure and function of animal and plant cells and why they differ 2. Understand the function of a cell's organelles 3. State the function of specialized cells and explain how they are adapted to their role: • Egg cell • Sperm cell • Red blood cell • Nerve cell • Muscle cell • Palisade cell • Root hair cell • Ciliated epithelial cell 4. Suggest the type of organism or tissue a cell comes from, based on its features 5. Describe how to use a microscope 6. Identify the different parts of a microscope 7. Can make an accurate cell drawing of observed cells 8. Describe the hierarchical arrangement of living things 9. Understand what is meant by and the issues surrounding organ donation and transplantation
Key Question	What are the fundamental building blocks of living organisms?
Knowledge	Structure and similarity and differences between animal and plant cells. How specialised cells are adapted to their function. Using a microscope to observe cells and how to make scientific drawings.
Ongoing Assessment	Retrieval questions at the start of every lesson. Worksheets for all major concepts to be used for self and peer assessment. Revision checklist at beginning of handout pack and retrieval questions at the end.
End Product 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. 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 first Biology topic in KS3 as cells and hierarchical organisation of organisms is a basic fundamental concepted key to the subject. The concepts from this topic will be built upon in future topics. These key concepts are also revisited at the start of GCSE and therefore learning the concepts now gives them prior exposure to aid the transition to KS4.
Link to careers	Clinical pathologists identify cancers and diseases by studying patients' cells under microscopes.
Diversity and Inclusion	Organ donation debate discussing different attitudes from different cultures - Why do you think there are less organs being donated by Black, Asian and minority ethnic groups?
Intervention support	Learning checklist and key terminology are highlighted throughout. Online textbook via Kerboodle includes working scientifically, glossary and literacy support. Adaptive teaching in the classroom supports all learners.
Challenge	Students are challenged throughout the KS3 course, developing key language and applying knowledge and skills in different environments. Stretch challenge question on end of topic test.