

Subject: KS4 Y9 Biology		Year Group: 9
Term 1 Key Focus/Topic(s): Key concepts in Biology <ul style="list-style-type: none"> • Microscopes • Plant and animal cells • Core practical – microscopes • Specialised cells 	Term 2 Key Focus/Topic(s): Key concepts in Biology <ul style="list-style-type: none"> • Enzymes and nutrition • Testing foods • Core practical – testing food • Enzyme action • Enzyme activity 	Term 3 Key Focus/Topic(s): Key concepts in Biology <ul style="list-style-type: none"> • Core practical pH and enzymes • Transporting substances • Core practical - Osmosis
Term 1 Assessment Opportunities : <ul style="list-style-type: none"> • Classwork with a particular focus on core practical's and scientific evidence. • Mathematical skills. 	Term 2 Assessment Opportunities <ul style="list-style-type: none"> • Classwork with a particular focus on core practical's and scientific evidence. • Examination of subject content. 	Term 3 Assessment Opportunities <ul style="list-style-type: none"> • Classwork with a particular focus on core practical's and scientific evidence. • Examination of subject content.
Term 4 Key Focus/Topic(s): Cells and Control <ul style="list-style-type: none"> • Mitosis • Growth in Animals • Growth in plants • Stem cells 	Term 5 Key Focus/Topic(s): Cells and Control <ul style="list-style-type: none"> • The brain • Brain and spinal cord • Nervous system • The eye • Neurotransmitters 	Term 6 Key Focus/Topic(s): Genetics <ul style="list-style-type: none"> • Sexual and asexual reproduction • Meiosis • DNA • Core practical – DNA extraction
Term 4 Assessment Opportunities <ul style="list-style-type: none"> • Classwork and end of unit assessments 	Term 5 Assessment Opportunities <ul style="list-style-type: none"> • Classwork and end of unit assessments 	Term 6 Assessment Opportunities <ul style="list-style-type: none"> • Classwork with a particular focus on core practical's and scientific evidence. • Examination of subject content.

Rationale:

All of the topics covered in Year 9 build on the spiral nature of the work covered in the Biology units at KS3. The first unit in Year 9 covers the concepts that form the foundations of GCSE Biology. In Year 7 students will have investigated the basic structure and function of cells in Year 9 this knowledge is consolidated and expanded to include more detailed analysis of cellular ultrastructure and biochemistry.

In Y9 Biology we place a particular focus on:

- Literacy skills – to use the correct scientific terminology with reference to Biology and how then to apply this in practical and examination situations.
- Mathematical skills in Biology – using equations, the SI system and data to support their scientific conclusions.
- Practical Skills – Understanding the scientific method, processing and presenting data, forming conclusions and making improvements.

Evaluation:

- Assessment opportunities will involve teacher, self and peer assessment. The assessment will focus around work produced in lessons where the students are required to demonstrate their literacy and/or numeracy skills as well as their scientific knowledge.
- Students should demonstrate good mathematical skills in Biology – interpretation of data and unit conversion.
- Assessment of students extended writing answers – Students should demonstrate that they can identify command words; context or/and instructions; key terminology in the questions. In response to unpicking the questions students should be able to make responses that are detailed, explaining the science and use the correct scientific terminology.
- Book scrutiny, lesson observations and collegial discussions will be used to quality assure teaching and learning. Gap analysis on mock papers.