



The curriculum for this stage of students' education has been designed to build upon their prior knowledge from key stage 3 Science. This course provides a worthwhile background for all students, whether or not they intend to go on to study Biology beyond GCSE. The course enables students to acquire a body of scientific knowledge and develop an understanding of the ideas and applications of Biology e.g. how diseases are spread and treated, the functioning of our digestive system and the importance of a balance diet. This is set in the context of knowing and understanding a body of scientific facts. Students acquire an understanding and experience of the methods used in science and of the application of experimental techniques in everyday life.

<ul style="list-style-type: none"> HALF TERM 1: Genes-Variation:KS3 Explain how variation is determined by genes and the environment. <p>HOW THIS WILL BE ASSESSED: A Progress Test halfway through the topic to address misconceptions, followed by a full assessment at the end of the topic.</p>	<ul style="list-style-type: none"> HALF TERM 2: Genes-Human Reproduction: KS3 Know the reproductive systems, understand how a foetus develops. <p>HOW THIS WILL BE ASSESSED: A Progress Test halfway through the topic to address misconceptions, followed by a full assessment at the end of the topic.</p>	<p>HALF TERM 3 Cell structure & Division</p> <p>STUDENTS MUST KNOW:</p> <ul style="list-style-type: none"> Cells are the basic unit of all forms of life. Eukaryote and prokaryote cell structures. Animal and plant cells structure. How cell specialisation occurs and why? Cell differentiation processes. Microscopy required practical. Cell Division by mitosis. <p>HOW THIS WILL BE ASSESSED: Assessments will be completed at the end of each topic and one main assessment will occur during each term to assess progress.</p>
<p>HALF TERM 4: Cell Biology – Transport in Cells</p> <p>STUDENTS MUST KNOW:</p> <ul style="list-style-type: none"> The role of stem cells and stem cell technology The process of diffusion. How osmosis occurs in cells and how it affects cells. How active transport occurs in cells. Required practical upon investigating the effects of salt or sugar solutions upon plant cells. <p>HOW THIS WILL BE ASSESSED: Assessments will be completed at the end of each topic and one main assessment will occur during each term to assess progress.</p>	<p>HALF TERM 5: Organisation 1</p> <p>STUDENTS MUST KNOW:</p> <ul style="list-style-type: none"> The principles of cellular organisation: cells, tissues, organs, organ systems, organism. How the human digestive system works. Required practical on how to test for food constituents How enzymes work Required practical upon the effects of pH upon enzyme activity The function of the heart and blood vessels The constituents and functions of blood The causes and effects of coronary heart disease <p>HOW THIS WILL BE ASSESSED: Assessments will be completed at the end of each topic and one main assessment will occur during each term to assess progress.</p>	<p>HALF TERM 6: Organisation 2</p> <p>STUDENTS MUST KNOW:</p> <ul style="list-style-type: none"> A range of lifestyle disease causes and effects The effects of lifestyle upon health How cancer is caused and treated How plant tissues and organs are arranged and function <p>HOW THIS WILL BE ASSESSED: Assessments will be completed at the end of each topic and one main assessment will occur during each term to assess progress.</p>

Embedding this knowledge can be supported at home by using the AQA website, BBC Bitesize and GCSEPOD in conjunction with suitable revision guides.