




St Richard Reynolds Catholic High School

<p>SUBJECT: Biology YEAR GROUP: 12</p> <p>TOPICS COVERED</p> <p>Biology: Cells, Biological Molecules, exchange with the environment, Genetics, Energy transfer within communities</p>	
<p style="text-align: center;">PROGRAMME OF STUDY</p>	<p style="text-align: center;">METHOD OF ASSESSMENT</p>
<p>Winter term</p> <ul style="list-style-type: none">➤ Biological molecules – proteins, carbohydrates & lipids - structure and function, nucleic acids, water➤ Cells – structure, prokaryotes and eukaryotes, transport across cell membranes, cell recognition and immune response, HIV	<p>Practical assessments – required practicals</p> <p>End of topic test after each unit</p> <p>Weekly exam questions</p> <p>Mini assessments at mid-point</p>
<p>Spring Term</p> <ul style="list-style-type: none">➤ Exchange with environment – gas exchange, diffusion and diffusion surfaces, internal and external environments, mass transport and digestion➤ Genetic information – variation and relationships between organism, biodiversity, genes and genetic diversity, the genetic code, variation and differences in DNA	<p>Practical assessments – required practicals</p> <p>End of topic test after each unit</p> <p>Weekly exam questions</p> <p>Mini assessments at mid-point</p>

<p>Summer Term</p> <ul style="list-style-type: none"> ➤ Field trip – effect of environmental factors on species distribution ➤ Energy transfer – between organisms and their environment (A level content). Photosynthesis, respiration, ATP, transfer of energy within communities, transfer of biomass. 	<p>Practical assessments – required practicals</p> <p>Weekly exam questions</p> <p>End of year exams</p>
<p>Key Skills:</p> <ul style="list-style-type: none"> ➤ Following written procedures ➤ Applying investigative approaches and methods when using instruments and equipment ➤ Safely using a range of practical equipment and materials ➤ Making and recording observations ➤ Researching and using references and reports ➤ Demonstrating knowledge and understanding of scientific ideas, processes, techniques and procedures ➤ Applying knowledge and understanding of scientific ideas, processes, techniques and procedures in a theoretical and practical context and when handling data ➤ Analysing, interpreting and evaluating scientific information, ideas and evidence to make judgements and reach conclusions and develop and refine practical design and procedures. 	