



**Catholic
Memorial**
HIGH SCHOOL

Year Long Course Plan

Department: Science

Course: IB Biology 1 HL 762/763

Essential Learning Outcomes: After successfully completing this course, students will be able to:

1. Demonstrate a biology-specific, college-level understanding of:
 - Scientific facts and concepts
 - Scientific methods and techniques
 - Scientific terminology
 - Methods of presenting scientific information
2. Apply and use:
 - Scientific facts and concepts
 - Scientific methods and techniques.
 - Scientific terminology to communicate effectively
 - Appropriate methods to present scientific information
3. Construct, analyze and evaluate:
 - Research questions, hypotheses and predictions
 - Scientific methods and techniques
 - Scientific explanations
4. Demonstrate the personal skills of cooperation, perseverance and responsibility appropriate for effective scientific investigation and problem solving.
5. Demonstrate the manipulative skills necessary to carry out scientific investigations with precision and safety.

Quarter 1	Quarter 2
<p>Unit I Statistical Analysis and The Chemistry of Life</p> <p>Statistical analysis of scientific data Water and life Organic reactions Lipids DNA Proteins</p> <p>Unit II Cells</p> <p>Cell theory Cells Cell Division</p>	<p>Unit III Cell Respiration and Photosynthesis</p> <p>Cell respiration Photosynthesis</p> <p>Unit IV Genetics I</p> <p>Meiosis Genetics</p>
Quarter 3	Quarter 4
<p>Unit V Nucleic Acids and Proteins</p> <p>DNA</p>	<p>Unit 7 Plant Science</p> <p>Stems and Leaves</p>

<p>Replication Transcription Translation</p> <p>Unit VI Evolution and Classification</p> <p>Evolution Classification</p>	<p>Monocots versus dicots Leaves Growth Transportation within plants Reproduction</p> <p>Unit 8 Ecology</p> <p>Ecology Food chain Trophic levels Food web Carbon cycle Precautionary principle Global warming Population growth curves Factors affecting population increase</p>
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