



## Bishop Milner Catholic College Year 8 CURRICULUM PLAN for ICT/Computing



The curriculum for this stage of students' education has been designed to maintain awareness of being safe and respectful when using of a range of on-line applications including social media. The curriculum this year focuses on developing greater expertise in aspects of computational thinking and computer programming alongside the infrastructure and hardware required to access the internet and the internal components of a computer. Expectations that good working practices relating to file saving, sharing and backing up both in the Cloud and on the network will continue to be diligently applied.

<p><b>HALF TERM 1:</b> Internet safety, Spreadsheet &amp; Computer Systems and networks</p> <p><b>Spreadsheets</b></p> <p>STUDENTS MUST KNOW:</p> <ul style="list-style-type: none"> <li>• How to use cell references and develop accurate formulas.</li> <li>• The difference between fixed and variable cell references.</li> </ul> <p>HOW THIS WILL BE ASSESSED:</p> <p>Assessment will be completed at the end of each topic in the form of formal testing under exam conditions and a written report.</p> <p><b>Computer systems and networks</b></p> <p>STUDENTS MUST KNOW:</p> <ul style="list-style-type: none"> <li>• What are the main components of a network.</li> <li>• The different network topologies.</li> <li>• How to identify different file types and sizes.</li> </ul> <p>HOW THIS WILL BE ASSESSED:</p> <p>Assessment will be completed at the end of this topic in the form of a presentation in either Prezi or Sway.</p>	<p><b>HALF TERM 2:</b> Programming using Python; Graphics work</p> <p><b>Python</b></p> <p>STUDENTS MUST KNOW:</p> <ul style="list-style-type: none"> <li>• How to write basic code and compile successfully.</li> <li>• How to import existing modules and adapt them for their needs.</li> <li>• How to read and interpret more complex code.</li> <li>• How to instruct the computer to append; delete from existing data set.</li> </ul> <p>HOW THIS WILL BE ASSESSED:</p> <p>Assessment will be completed at the end of this topic combining observation of practical skills and peer assessment.</p> <p><b>Graphics</b></p> <p>STUDENTS MUST KNOW:</p> <ul style="list-style-type: none"> <li>• How to crop; rotate; layer and apply special effects to a graphic</li> <li>• Understand the difference between vector and bitmap files</li> </ul> <p>HOW THIS WILL BE ASSESSED:</p> <p>Assessment will be completed at the end of this topic combining observation of practical skills and peer assessment.</p>	<p><b>HALF TERM 3:</b> Environmental issues</p> <p>STUDENTS MUST KNOW:</p> <ul style="list-style-type: none"> <li>• How to use existing skills from graphics to prepare an eye-catching point of information.</li> <li>• Use astute research to derive accurate and relevant data.</li> <li>• Present an understanding of the environmental risks facing our planet and how to reduce this.</li> </ul> <p>HOW THIS WILL BE ASSESSED:</p> <p>Assessment will be completed at the end of this topic with a presentation using an infographic</p>
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<p><b>HALF TERM 4:</b> Presentation skills &amp; Wordprocessing</p> <p><b>Presentation skills</b></p> <p>STUDENTS MUST KNOW:</p> <ul style="list-style-type: none"> <li>• How to utilize colour, fonts, navigation and white space effectively</li> </ul> <p>HOW THIS WILL BE ASSESSED:</p> <p>Assessment will be completed at the end of this topic combining observation of practical skills and peer assessment.</p> <p><b>Wordprocessing</b></p> <p>STUDENTS MUST KNOW:</p> <ul style="list-style-type: none"> <li>• How to identify different data types and validation.</li> <li>• How to sort and filter data using Boolean terminology.</li> <li>• How to separate data into separate dependant tables.</li> <li>• The main instructions on an SQL database.</li> </ul>	<p><b>HALF TERM 5:</b> Website Creation &amp; HTML</p> <p>STUDENTS MUST KNOW:</p> <ul style="list-style-type: none"> <li>• basic HTML coding</li> <li>• how to write the code for a basic 'one page' website</li> <li>• how to add more than one file type</li> <li>• how file types and sizes effect the accessibility of a webpage's contents</li> </ul> <p>HOW THIS WILL BE ASSESSED:</p> <p>Assessments will be completed at the end of this topic in the form of a report written in Word.</p>	<p><b>HALF TERM 6:</b> WebPlus and Flash</p> <p>STUDENTS MUST KNOW:</p> <ul style="list-style-type: none"> <li>• How to research effectively.</li> <li>• How to present data using previous learning.</li> <li>• How to use the features of web plus including site navigation</li> <li>• Incorporate video / Flash</li> </ul> <p>HOW THIS WILL BE ASSESSED:</p> <p>Website will be peer and teacher assessed..</p>
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**Embedding this knowledge can be supported by cross curricular experiences as well as developing computational thinking skills by use of program such a Python. Programming the Micro-bit or getting a Raspberry Pi will also help develop programming skills and computational thinking.**



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