



The curriculum for this stage of students' education has been designed to help the transition from year 7 computing while focusing on improving student's digital literacy, and introducing the core concepts of programming in a text-based programming language. Students will learn how to use the computer systems at Bishop Milner appropriately and be able to utilise a range of applications to meet set criteria.

<p><b>Half Term 1:</b></p> <p><b>Developing for the web</b> <b>STUDENTS MUST KNOW:</b></p> <ul style="list-style-type: none"> <li>- How websites are structured and written using HTML</li> <li>- How to use a variety of HTML tags to tailor a website look</li> <li>- How to use CSS to add style to websites</li> <li>- How search engines and web crawlers work.</li> </ul> <p><b>How this will be assessed:</b></p> <p>Students will create a website which will be assessed against a rubric.</p>	<p><b>Half Term 2</b></p> <p><b>Representations: From clay to silicon</b> <b>STUDENTS MUST KNOW:</b></p> <ul style="list-style-type: none"> <li>- How information has been represented across the world through time</li> <li>- How computers store and work with binary data</li> <li>- How to convert numbers between binary and decimal and vice versa.</li> </ul> <p><b>How this will be assessed:</b></p> <p>Students will take a multiple-choice summative assessment at the end of the unit.</p>	<p><b>Half Term 3</b></p> <p><b>Mobile app development</b> <b>STUDENTS MUST KNOW:</b></p> <ul style="list-style-type: none"> <li>- How programs use events to function</li> <li>- How to create a mobile app using block-based code</li> <li>- How to work collaboratively with peers to work on a code-based project. .</li> </ul> <p><b>How this will be assessed:</b></p> <p>Students will take a multiple-choice summative assessment at the end of the unit and their pair-project work will be assessed against a rubric.</p>
<p><b>Half Term 4</b></p> <p><b>Media: Vector graphics</b> <b>STUDENTS MUST KNOW:</b></p> <ul style="list-style-type: none"> <li>- How to design graphics using vector graphic editing software.</li> <li>- The processes involved in creating logo's and icons</li> <li>- To use layering and math manipulation</li> </ul> <p><b>How this will be assessed:</b></p> <p>Students will take a multiple-choice summative assessment at the end of the unit and their work will be assessed against a rubric.</p>	<p><b>Half Term 5</b></p> <p><b>Computing Systems</b> <b>STUDENTS MUST KNOW:</b></p> <ul style="list-style-type: none"> <li>- The different type of programs from applications to operating systems</li> <li>- The physical components which store and execute programs</li> <li>- How binary building blocks are the foundation of computer systems</li> </ul> <p><b>How this will be assessed:</b></p> <p>Students will take a multiple-choice summative assessment at the end of the unit.</p>	<p><b>Half Term 6</b></p> <p><b>Introduction to Python programming</b> <b>STUDENTS MUST KNOW:</b></p> <ul style="list-style-type: none"> <li>- The basic steps of running a text-based programming language</li> <li>- How to use selection, sequence and iteration in Python</li> <li>- How to debug code with regards to syntax and data types</li> </ul> <p><b>How this will be assessed:</b></p> <p>Students will take a multiple-choice summative assessment at the end of the unit.</p>

Embedding this knowledge can be supported at home by cross curricular experiences as well as developing computational thinking skills by use of programs like Codecademy and code.org.

