



The curriculum for this stage of students' education has been designed to build upon their prior knowledge of maintaining safe and respectful use of a range of on-line activities including social media and collaborative working platforms. The expectation that throughout extending learning of existing applications and learning new applications students will continue to develop good working practices relating to file saving, sharing and backing up both in the Cloud and on the network. This is building up from a KS2 curriculum that is heavily weighted to computer programming rather than the safe use and application of programs in both a personal and a business setting allowing them to have both the skills and underlying knowledge to access the KS4 course

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

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.