



St Anthony's Catholic Primary School

Computing Curriculum

Year 5

**Subject Cultural Capital = Using & Applying computing knowledge to solve problems**  
**Differentiation = please see the differentiation for the EXC EM & SEND (Please see SEND pupils IEPs when planning)**  
**Minimum expectations to check for understanding during lessons = targeted questioning / mini whiteboards/ peer talk /thumb signs**  
**Long term memory skill development strategy = LAST, LAST, LAST linked to the WALT**  
**Literacy & Numeracy skills development = ICT vocabulary bank linked to the WALT & include numeracy skills where they are linked to the WALT in the weekly planning**

Unit	Expectations WALTS	National Curriculum Programme of Study	Software	Hardware	Vocabulary
5.1 <b>We are game developers</b> Developing an interactive game	Pupils learn to: <ul style="list-style-type: none"> <li>• Create original artwork and sound for a game.</li> <li>• Design and create a computer program for a computer game, which uses sequence, selection, repetition and variables.</li> <li>• Detect and correct errors in their computer game.</li> <li>• Use iterative development techniques (making and testing a series of small changes) to improve their game</li> </ul>	Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. Use sequence, selection, and repetition in programs; work with variables and various forms of input and output. Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.	Scratch	Laptops desktops chromebooks	algorithm background bug code debug iterative development logical reasoning program Scratch sprites

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<b>5.2 We are cryptographers</b> Cracking codes	Pupils learn to: <ul style="list-style-type: none"> <li>• Be familiar with semaphore and Morse code.</li> <li>• Understand the need for private information to be encrypted.</li> <li>• Encrypt and decrypt messages in simple ciphers.</li> <li>• Appreciate the need to use complex passwords and to keep them secure.</li> <li>• Have some understanding of how encryption works on the web.</li> </ul>	Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs. Understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration. Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.	Scratch	Laptops desktops chrome books	Cypher codes cryptanalytic cryptography decrypt encode decrypt message Morse Code semaphore transmit semaphore
<b>5.3 We are architects</b> Creating a virtual space	Pupils learn to: <ul style="list-style-type: none"> <li>• Understand the work of architects, designers and engineers working in 3D</li> <li>• Develop a familiarity with a simple CAD (computer-aided design) tool</li> <li>• Develop spatial awareness by exploring and experimenting with a 3D virtual environment</li> <li>• Develop greater aesthetic awareness</li> </ul>	Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content. Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.	Trimble Sketchup Screen Recorder	Laptops desktops chromebooks	Computer aided design (CAD) Creative Commons Photorealistic render

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<p><b>5.4 We are web developers</b> Making sense of the internet and building a website</p>	<p>Pupils learn:</p> <ul style="list-style-type: none"> <li>The name and function of components making up the school's network</li> <li>How information is passed between the components that make up the Internet</li> <li>What the source code for a web page looks like, and how it can be edited</li> <li>How a website can be structured</li> <li>How to add content to a webpage</li> </ul>	<p>Understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration. Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content. Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information. Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.</p>	<p>Google Chrome Google sites</p>	<p>Laptops desktops chromebooks</p>	<p>Creative commons Hyperlinks Hypertext markup language (HTML) Hypertext Transfer Protocol (HTTP) Internet Internet Protocol (IP) addresses Network switch</p>
<p><b>5.5 We are adventure gamers</b> Creating an interactive adventure using presentation software</p>	<p>Pupils learn:</p> <ul style="list-style-type: none"> <li>How to plan a non-linear presentation</li> <li>To create text as part of a presentation</li> <li>To add and edit images in a presentation</li> <li>To use hyperlink for navigation between the slides of a presentation</li> <li>To record and add audio narration to a presentation</li> <li>To use commenting tools to give feedback to a presentation</li> </ul>	<p>Use search technologies effectively Use a variety of software (including Internet services) on a range of digital devices to design and create content that accomplish given goals, including presenting information. Use technology safely, respectfully and responsibly.</p>	<p>Google slides voice recorder</p>	<p>Laptops desktops chromebooks</p>	<p>Abstraction Colour value Creative commons Hyperlink MP3 Pixel safe search</p>

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<b>5.6 We are VR designers</b> Experimenting with virtual and augmented reality	Pupils learn to: <ul style="list-style-type: none"> <li>• Explore real world and imagined locations in VR (if possible)</li> <li>• Create 360° photosphere images</li> <li>• Link physical objects to digital content using QR codes</li> <li>• Create their own VR scene</li> <li>• Program objects and interactions in VR</li> </ul>	Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. Use sequence, selection and repetition in programs; work with variables and various forms of input and output. Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information	Google maps CoSpaces	Ipads tablets	Accelerometer Augmented reality (AR) Global positional system (GPS) Google cardboard Photosphere GR code Share code Stereographic Virtual reality (VR)