



St Michael's Computing Curriculum Overview					
Year 1 curriculum					
Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Technology around us	Digital painting	Moving a robot	Grouping data	Digital writing	Programming animations
Learning Journey					
L1: Recognising technology within our classroom and wider school. I can explain technology as something that helps us. I can locate examples of technology in the classroom. I can identify rules to keep us safe and healthy when we are using technology.	L1: How can we paint using computers? I can make marks on a screen and explain which tools I used I can draw lines on a screen and explain which tools I used I can use the paint tools to draw a picture	L1: Buttons and Directions I can predict the outcome of a command on a device I can match a command to an outcome I can run a command on a device	L1: Label and match I can describe objects using labels I can match objects to groups I can identify the label for a group of objects	L1: Adding or removing text I can enter text into a computer I can use letter, number, and space keys I can use backspace to remove text	L1: Introduction to Scratch Jr I can find which commands to move a sprite I can use commands to move a sprite I can compare different programming tools
L2: Developing mouse skills. I can switch on and log into a computer I can use a mouse to open a program. I can click and drag to make objects on a screen.	L2: Using lines and shapes to make an image. I can use the shape and line tools effectively I can use the shape and line tools to recreate the work of an artist I can choose appropriate shape and colour choices	L2: Four directions I can compare forward and backwards commands I can compare left and right turns I can experiment with turn and move commands to move a robot	L2: Group and count. I can count objects I can group objects I can count a group of objects	L2: Making changes to text I can select a word by double-clicking I can select all of the text by clicking and dragging I can change the font	L2: Adding blocks to a program. I can use more than one block by joining them together I can find blocks that have numbers and change the value I can run my program
L3: Developing Keyboard skills. I can open my work from a file. I can use the arrow keys to move the cursor. I can delete letters.	L3: Painting all by myself I can make dots of colour on the page I can change the colour and brush sizes I can say whether I prefer painting using a computer or using paper	L3: Completing routes. I can explain what my program should do I can choose the order of commands in a sequence I can debug my program	L3: Creating and comparing groups I can group similar objects I can group objects in more than one way I can choose how to group objects	L3: Explaining my choices. I can say what tool I used to change the text I can decide if my changes have improved my writing I can explain the differences between and say why I prefer typing or writing	L3: Adding sprites I can show that a project can include more than one sprite I can delete a sprite I can add blocks to each of my sprites
Additional Resources: Laptops with an attachable mouse.	Additional resources: Paint app on the laptops	Additional Resources: Class set of BeeBots		Additional Resources: Laptops with access to a word document	Additional Resources: ScratchJr and potentially BeeBots.



St Michael's Computing Curriculum Overview 2024-2025					
Year 2 curriculum					
Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
IT around us	Digital photography	Robot algorithms	Pictograms	Digital music <i>This topic may be covered in Music lessons.</i>	Programming quizzes
L1: What is IT? I can identify examples of computers I can identify IT in school I can identify IT in the wider world.	L1: Landscape or portrait? I can explain the process of taking a good photograph I can take photos in both landscape and portrait format I can explain why a photo looks better in portrait or landscape format	L1: Giving instructions I can give clear instructions I can use the same instructions to create different algorithms I can use an algorithm to program a sequence on a floor robot	L1: Counting and comparing I can record data in a tally chart I can represent a tally count as a total I can compare totals in a tally chart	L1: How music can be used. I can explain how music can make me feel. I can connect images with sounds I can use a computer to experiment with pitch	L1: ScratchJr recap I can identify the start of a sequence I can identify that a program needs to be started I can show how to run my program
L2: Using IT safely. I can demonstrate how IT devices work together and why we use them. I can talk about different rules for using IT I can say how rules can help keep me safe	L2: Effects and lighting I can explore the effect that light has on a photo I can experiment with different light sources I can use a tool to achieve a desired effect and explain my choices.	L2: Mats and routes I can explain the choices I made for my mat design I can identify different routes around my mat I can test my mat to make sure that it is usable	L2: Creating pictograms I can use a tally chart to create a pictogram I can explain what the pictogram shows I can use appropriate images and labels for my pictogram.	L2: Notes and tempo I can identify that music is a sequence of notes I can explain how my music can be played in different ways I can refine my musical pattern on a computer	L2: Using a design I can work out the actions of a sprite in an algorithm I can decide which blocks to use to meet the design I can build the sequences of blocks I need
L3: Using IT in different ways. I can identify the choices that I make when using IT I can use IT for different types of activities I can explain the need to use IT in different ways	L3: Is it real? I can apply a range of photography skills to capture a photo I can recognise which photos have been changed I can identify which photos are real and which have been changed	L3: Debugging programs I can test and debug each part of the program I can plan algorithms for different parts of a task I can put together the different parts of my program	L3: Comparing Data I can choose a suitable attribute to compare people I can collect the data I need I can create a pictogram and draw conclusions from it	L3: Creating digital music I can create a rhythm which represents an animal I've chosen I can create my animal's rhythm on a computer I can add a sequence of notes to my rhythm	L3: Designing and creating a program I can choose the images for my own design I can create an algorithm I can build sequences of blocks to match my design
Additional Resources:	Additional Resources:	Additional Resources:	Additional Resources:	Additional Resources: Garage Band on the iPads	Additional Resources: ScratchJr



	iPads with photo editing software		https://www.j2e.com/jit5#pictogram		
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St Michael's Computing Curriculum Overview 2024-2025					
Year 3 curriculum					
Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Connecting computers	Stop-frame animation	Sequencing sounds	Branching databases	Desktop publishing (via PowerPoint)	Events and actions in programs
L1: Digital devices. I can explain that digital devices accept inputs I can explain that digital devices produce outputs I can explain how I use digital devices for different activities	L1: Frame by frame I can predict what an animation will look like I can explain why little changes are needed for each frame I can create an effective stop-frame animation	L1: Introduction to Scratch I can identify the objects in a Scratch project (sprites, backdrops) I can explain that objects in Scratch have attributes (linked to) I can recognise that commands in Scratch are represented as blocks	L1: Making groups I can select an attribute to separate objects into groups I can create a group of objects within an existing group I can arrange objects into a tree structure	L1: Words and pictures I can recognise that text and images can communicate messages clearly I can identify the advantages and disadvantages of using text and images I can change font and image style, size, and colours for a given purpose (clarity or audience)	L1: Moving a sprite I can explain the relationship between an event and an action I can choose which keys to use for actions and explain my choices I can identify a way to improve a program
L2: How are computers connected? I can explain how messages are passed through multiple connections I can recognise that a computer network is made up of several devices I can explain the role of a switch, server, and wireless access point in a network	L2: Creating a story. I can break down a story into settings, characters and events I can describe an animation that is achievable on screen I can create a storyboard	L2: Programming sprites I can identify that each sprite is controlled by the commands I choose I can create a program following a design I can create a sequence of connected commands	L2: Structuring a branching database I can create yes/no questions using given attributes I can compare two branching database structures I can explain that questions need to be ordered carefully to split objects into similarly sized groups	L2: Templates and becoming a designer I can define the term 'page orientation' I can create a template for a particular purpose I can choose the best locations for my content	L2: Drawing lines and adding features I can consider the real world when making design choices I can choose blocks to set up my program I can identify additional features (from a given set of blocks)
L3: Our school network. I can identify how devices in a network are connected together I can identify networked devices around me I can identify the benefits of computer networks	L3: Lights, camera, action! I can follow a storyboard to create a stop-frame animation. I can use onion skinning to help me make small changes between frames I can add other media to my animation	L3: Looking good I can build a sequence of commands I can decide the actions for each sprite in a program I can make design choices for my artwork	L3: Creating a branching database I can independently create questions to use in a branching database I can create questions that will enable objects to be uniquely identified I can create a branching database that reflects my plan	L3: Complete our designs I can paste text and images to create a cover page. I can make changes to content after I've added it I can choose a suitable layout for a given purpose	L3: Making a project I can match a piece of code to an outcome I can make design choices and justify them I can implement and evaluate my design
Additional Resources:	Additional Resources: iMotion or Stop Motion Studio app	Additional Resources: Scratch	Additional Resources: https://www.j2e.com/jit5#branch	Additional Resources: Laptops with access to PowerPoint Children to save work in a shared folder	Additional Resources:



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St Michael's Computing Curriculum Overview 2024-2025					
Year 4 curriculum					
Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
The Internet	Audio Production	Repetition in shapes	Data logging Opportunity for a Science cross-curricular	Photo editing	Repetition in games
L1: What is the internet made of? I can describe networked devices and how they connect I can explain that the internet is used to provide many services I can recognise that the World Wide Web contains websites and web pages	L1: Recording sound and editing audio I can explain that the person who records the sound can say who is allowed to use it I can identify the input and output devices used to record and play sound I can inspect the soundwave view to know where to trim and improve my recording, including rerecording.	L1: Programming a screen turtle I can program a computer by typing commands I can explain the effect of changing a value of a command I can create a code snippet for a given purpose	L1: Data collection I can explain what data can be collected using sensors I can use data from a sensor to answer a given question I can identify that data from sensors can be recorded	L1: Creating digital images I can improve an image by rotating it I can explain why I might crop an image I can use photo editing software to crop an image	L1: Using loops to create shapes I can list an everyday task as a set of instructions including repetition I can predict the outcome of a snippet of code I can modify a snippet of code to create a given outcome
L2: What is a website? I can explain what media can be found on websites I can recognise that I can add content to the WWW I can explain that internet services can be used to create content online	L2: Planning a podcast I can explain how sounds can be combined to make a podcast more engaging I can save my project, so the different parts remain editable I can plan appropriate content for a podcast	L2: Programming letters I can use a template to create a design for my program I can write an algorithm to produce a given outcome I can test my algorithm in a text-based language	L2: Logging and analysing data I can recognise that a data logger collects data at given points I can identify the intervals used to collect data I can view data at different levels of detail and in different formats	L2: Recolouring, cloning and combining I can experiment with different colour effects I can add to the composition of an image by cloning I can experiment with tools to select and copy part of an image	L2: Animate your name I can choose which action will be repeated for each object I can explain what the outcome of the repeated action should be I can evaluate the effectiveness of the repeated sequences used in my program
L3: Can I believe what I read?	L3: Creating a podcast	L3: Using loops to create shapes	L3: Data for answers	L3: Creating and combining	L3: Designing and creating a game



<p>I can explain that not everything on the World Wide Web is true</p> <p>I can explain why some information I find online may not be honest, accurate, or legal</p> <p>I can explain why I need to think carefully before I share or reshare content</p>	<p>I can open my project to continue working on it</p> <p>I can arrange multiple sounds to create the effect I want</p> <p>I can explain the difference between saving a project and exporting an audio file</p>	<p>I can identify the effect of changing the number of times a task is repeated</p> <p>I can predict the outcome of a program containing a count-controlled loop</p> <p>I can choose which values to change in a loop</p>	<p>I can propose a question that can be answered using logged data</p> <p>I can plan how to collect data using a data logger</p> <p>I can use a data logger to collect data</p>	<p>I can describe the image I want to create</p> <p>I can choose suitable images for my project</p> <p>I can review images against a given criteria</p>	<p>I can evaluate the use of repetition in a project</p> <p>I can select key parts of a given project to use in my own design</p> <p>I can develop my own design explaining what my project will do</p>
Additional Resources:	Additional Resources: Audacity app on the iPads.	Additional Resources: Scratch	Additional Resources: Data loggers	Additional Resources: Image editing software for iPads.	Additional Resources:
St Michael's Computing Curriculum Overview 2024-2025					
Year 5 curriculum					
Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Systems and Searching	Video Production	Crumble	Flat-file Databases	Vector Graphics	Selection in quizzes
<p>L1: Computer systems and us I can identify tasks that are managed by computer systems</p> <p>I can identify the human elements of a computer system</p> <p>I can explain the benefits of a given computer system</p>	<p>L1: Filming techniques I can identify and find features on a digital video recording device</p> <p>I can experiment with different camera angles</p> <p>I can make use of a microphone</p>	<p>L1: Connecting crumbles I can create a simple circuit and connect it to a microcontroller</p> <p>I can program a microcontroller to make an LED switch on</p> <p>I can explain what an infinite loop does</p>	<p>L1: Computer databases I can explain what a field and a record is in a database</p> <p>I can navigate a flat-file database to compare different views of information</p> <p>I can choose which field to sort data by to answer a given question</p>	<p>L1: The drawing tools I can recognise that vector drawings are made using shapes</p> <p>I can experiment with the shape and line tools</p> <p>I can discuss how vector drawings are different from paper-based drawings</p>	<p>L1: Selecting outcomes I can use selection in an infinite loop to check a condition</p> <p>I can identify the condition and outcomes in an 'if... then... else...' Statement</p> <p>I can create a program with different outcomes using selection</p>
<p>L2: Searching the web and selecting results I can make use of a web search to find specific information</p> <p>I can refine my web search</p> <p>I can compare results from different search engines</p>	<p>L2: Planning a video I can outline the scenes of my video using a storyboard</p> <p>I can decide which filming techniques I will use</p> <p>I can capture video using a range of filming techniques</p>	<p>L2: Controlling conditions I can explain that a condition is either true or false</p> <p>I can design a conditional loop</p> <p>I can program a microcontroller to respond to an input</p>	<p>L2: Using a database I can explain that data can be grouped using chosen values</p> <p>I can group information using a database</p> <p>I can combine grouping and sorting to answer specific questions</p>	<p>L2: Making effective drawings I can use the zoom tool to help me add detail to my drawings</p> <p>I can explain how alignment grids and resize handles can be used to improve consistency</p> <p>I can modify objects to create a new image</p>	<p>L2: Planning a quiz I can outline a given task</p> <p>I can use a design format to outline my project</p> <p>I can identify the outcome of user input in an algorithm</p>
L3: How searches are ranked and influenced	L3: Editing video	L3: Starting with selection	L3: Comparing data visually	L3: Layers and objects	L3: Testing a quiz



<p>I can order a list by rank</p> <p>I can explain that a search engine follows rules to rank results</p> <p>I can describe some of the ways that search results can be influenced</p>	<p>I can explain how to improve a video by reshooting and editing</p> <p>I can select the correct tools to make edits to my video</p> <p>I can identify when a video has been edited</p>	<p>I can explain that a condition being met can start an action</p> <p>I can identify a condition and an action in my project</p> <p>I can use selection (an 'if...then...' statement) to direct the flow of a program</p>	<p>I can select an appropriate chart to visually compare data</p> <p>I can refine a chart by selecting a particular filter</p> <p>I can explain the benefits of using a computer to create charts</p>	<p>I can use layering to create an image</p> <p>I can copy part of a drawing by duplicating several objects</p> <p>I can recognise when I need to group and ungroup objects</p>	<p>I can implement my algorithm to create the first section of my program</p> <p>I can test my program</p> <p>I can share my program with others</p>
Additional Resources:	Additional Resources: iPads with video editing software	Additional Resources: Crumble Kits and laptops with crumble access	Additional Resources:	Additional Resources: Laptops with vector graphic system on it.	Additional Resources: Crumble Kits and laptops with crumble access

St Michael's Computing Curriculum Overview 2024-2025					
Year 6 curriculum					
Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Managing online information	Webpage creation	Microbit 1	Introduction to Spreadsheets	3D Modelling Architecture cross-curriculum	Microbit 2
<p>L1: Search Engines</p> <p>I can explain how search engines work.</p> <p>I can explain how to use search engines effectively.</p> <p>I can recognise reliable and unreliable links within a search engine.</p>	<p>L1: What makes a good website?</p> <p>I can explore a website</p> <p>I can discuss the different types of media used on websites</p> <p>I know that websites are written in HTML</p>	<p>L1: The Microbit</p> <p>I can apply my knowledge of programming to a new environment</p> <p>I can test my program on an emulator</p> <p>I can transfer my program to a controllable device</p>	<p>L1: Formatting a spreadsheet</p> <p>I can explain what an item of data is</p> <p>I can choose an appropriate format for a cell</p> <p>I can apply an appropriate format to a cell</p>	<p>L1: Modifying 3D objects</p> <p>I can resize an object in three dimensions</p> <p>I can lift/lower and recolour 3D objects</p> <p>I can rotate objects in three dimensions</p> <p>I can duplicate and group 3D objects</p>	<p>L1: Creating a Microbit counter</p> <p>To understand how variables and inputs can be used on the micro:bit to create a sports counter</p> <p>To create an algorithm for a sport counter, and code, run and evaluate the use of the micro:bit to count activities</p>
<p>L2: Opinions and Facts</p> <p>I can describe how some online information can be opinion and can offer examples.</p>	<p>L2: Copyright or CopyWRONG</p> <p>I can say why I should use copyright-free images</p>	<p>L2: Sensing inputs</p> <p>I can use a condition to change a variable</p>	<p>L2: What's the formula?</p> <p>I can explain which data types can be used in calculations</p>	<p>L2: Planning a 3D model</p> <p>I can analyse a 3D model</p> <p>I can choose objects to use in a 3D model</p>	<p>L2: Creating a Microbit timer</p> <p>To create a countdown timer on the micro:bit using variables</p>



<p>I can explain how and why some people may present 'opinions' as 'facts'; why the popularity of an opinion or the personalities of those promoting it does not necessarily make it true.</p> <p>I understand the concept of persuasive design and how it can be used to influence peoples' choices</p>	<p>I can find copyright-free images</p> <p>I can describe what is meant by the term 'fair use'</p>	<p>I can experiment with different physical inputs</p> <p>I can explain the importance of the order of conditions in else, if statements</p>	<p>I can construct a formula in a spreadsheet</p> <p>I can identify that changing inputs changes outputs</p>	<p>I can combine objects in a design</p>	<p>To evaluate the effectiveness of the LED display on the micro:bit when used as a timer</p> <p>To modify a program using true and false statements and an if...else command</p> <p>To create an activity completion using a micro:bit counter and a micro:bit timer</p>
<p>L3: Disinformation and misinformation</p> <p>I can describe the difference between online misinformation and dis-information</p> <p>I can explain why information that is on a large number of sites may still be inaccurate or untrue. I can assess how this might happen (e.g. the sharing of misinformation or disinformation).</p> <p>I can identify, flag and report inappropriate content.</p>	<p>L3: How does it work?</p> <p>I can add content to my own web page</p> <p>I can preview what my web page looks like</p> <p>I can evaluate what my web page looks like on different devices and suggest/make edits</p>	<p>L3: Designing a step counter</p> <p>I can decide what variables to include in a project</p> <p>I can design the algorithm for my project</p> <p>I can design the program flow for my project</p>	<p>L3: Calculate and duplicate</p> <p>I can calculate data using different operations</p> <p>I can create a formula which includes a range of cells</p> <p>I can apply a formula to multiple cells by duplicating it</p>	<p>L3: Making a 3D model</p> <p>I can construct a 3D model based on a design</p> <p>I can explain how my 3D model could be improved</p> <p>I can modify my 3D model to improve it</p>	
Additional Resources:	Additional Resources: PowerPoint on the laptops	Additional Resources: Microbits	Additional Resources: Excel on the laptops	Additional Resources: TinkerCAD	Additional Resources: Microbits

St Michael's Computing Curriculum Overview					
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Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Computing systems and networks	Creating media A	Programming A	Data and information	Creating media B	Programming B