Primary Computing Progression Document

EYFS – KS1 – KS2

"'For I know the plans I have for you," says the Lord… "plans to give you HOPE and a FUTURE.'"

Jeremiah 29:11

At St Gabriel's it is our aim to provide our children with the skills needed to find, explore, exchange and present information. Computing is taught in discrete computing lessons; each lesson planned to be taught effectively so that it can meet the needs of all our pupils. We aim to develop and encourage the skills the children will need to become digitally literate and safe in our ever changing world.

Information Technology			Computer Science	Digital literacy
Communication	Data	Multimedia	Programming	E-Safety & Research
Word processing Presentations Online collaboration	Graphs Databases Spreadsheets	Creating images Photography Animation Video Audio	Programming Logical reasoning	Research E-safety

Computing Progression of Skills and Knowledge

Key Stage 1 & Key Stage 2

Information Technology Computer Science (Programming) Digital Literacy Other

		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Information Technology	Computer Skills	• Use a computer mouse or trackpad. • Switch on and shutdown a computer. • Launch an application and manipulate windows. • Save a file • Drag objects • Identify and practise computer skills.					
	Word Processing	• Type on a keyboard. • Type symbols and save files. • Edit text • Use a keyboard • Select and format text. • Format the font	• Use basic computer skills. • Change the case of text. • Align text. • Use bullets and numbering. • Use the <ctrl> key. • Insert and format text boxes.	• Format images for a purpose. • Use formatting tools to create an effective layout. • Use the spell check tool. • Insert and format a table in a word processing document. • Change a page layout for a purpose. • Create hyperlinks within a word document.			
	PowerPoint			• Use basic computer skills. • Use folders • Organise ideas for a presentation. • Create a simple presentation with text. • Add and format an image. • Reorder slides and present a presentation. • Search and print.	• Plan a branching story. • Create slide templates and organise slides with hyperlinks • Add theme, transitions and animation to a presentation. • Use action settings. • Insert audio and video • Evaluate slide layout and make improvements.	

	Spreadsheets						• Enter data and formulae into a spreadsheet. • Order and present data based on calculations. • Add, edit and calculate data. • Use a spreadsheet to solve problems. • Plan and calculate a spending budget. a spreadsheet for a specific purpose.
Information Technology	Photo Stories				• Create a comic strip layout using photos in a desktop publisher • Edit and enhance photos and text for presentation • Arrange and layer objects, including titles and backgrounds • Add and arrange photos to a movie presentation, with animation effects • Add an audio soundtrack and text captions to a photo sequence • Use beginning and ending enhancements to turn movie maker project into a finished movie file		
Information technology	Radio Station					• Use software to create my own sounds by recording, editing and playing • Combine audio effects to create an original radio jingle. • Research and plan digital content for a radio podcast. • Use software to create and present digital content for a radio podcast.	

						• Design and record a persuasive radio advert for a product or service. • Present and evaluate audio content	
	Film Making						• Use appropriate software and other tools effectively to write a film script. • Locate and check appropriate digital content, and provide accurate crediting of sources. • Use digital recording devices to film and import into video editing software. • Plan, conduct and import video interviews as part of a short film. • Use video editing software to create a short film. • Use video editing software to turn a film project into a finished movie and present it.
	Paionting	• Paint with different colours. • Paint with different brushes. • Create shapes and fill areas. • Make changes to improve my work. • Add text to a painting. • Use a computer program to make a poster.					
Information Technology	Computer Art		• Create computer art. • Use a range of tools in a computer program to reproduce a style of art. • Make and edit shapes to create a piece of art. • Change the shade of a colour for effect.				

			• Retrieve a file to edit in a computer program. Use a range of skills to create a piece of art.				
	Drawing and Desktop Publishing			• Draw with different shapes and lines • Order and group objects • Manipulate shapes and lines • Recognise effective layout. • Combine text and images ut objects effectively.			
	Animation				• Describe early forms of animation before computers and how computers have made a difference. • Create a short computer animation using one or more moving stick figures. • Create a recorded animation involving a number of moving characters on a background. • Structure specific timing of animations using a time slider. • Use a camera to create a short stop-motion animation film. • Analyse and evaluate software.		
	3D Modelling: SketchUp					• Draw 3D shapes. • Add detail to 3D drawings. • Add and manipulate 3D models. • Create a complex 3D model • Create a complex 3D model for my own design	

		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Computer Science	Programming Toys	• Create instructions using pictures. • Say why it is important to be precise when writing an algorithm. • Write instructions to program a person like a computer • Program a Bee-Bot to move. • Debug a Bee-Bot. • Program a sequence to make a Bee-Bot move.					
	Programming with Scratch	• Describe and use instructions to program a character • Program a character to grow and shrink. • Use instructions to make characters move at different speeds and distance. • Use a repeat instruction to make a sequence of instructions run more than once. • Create programs that play a recorded sound. • Create programs with a sequence of linked instructions.	• Create an algorithm and add sound. • Create an algorithm and use the repeat and say command. • Create an algorithm and use the green flag to start. • Create an algorithm and use the commands to change the backdrop and add sprites.	• Create and debug an algorithm using the move, rotate and repeat commands. • Create and debug algorithms that draw shapes. • Create and debug algorithms that draw regular polygons.	• Can compare quizzes and decompose a problem into smaller parts • Can write and debug a program. • Use sequence and selection. • Write and debug a program which uses sequence and repetition. • Work with variables. • Write and debug a program which uses sequence • Write a program. • Design, write and debug my own program by selecting appropriate visual block commands to create a sequence.	• Design and program a character game. • Design an original character or backdrop for a game. • Add features or effects to enhance a game. • Create an original animated game with a specific goal. • Program costume changes for a sprite. • Add point-scoring and levels to game code.	• Create appropriate animations for a story scene. • Structure and control the timing of events. • Control when objects need to be visible. • Sequence events to create a story narrative. • Add voice sounds to enhance an animated story. • Add interactive user features to a scene or story

Computer Science	Programming with Turtle Logo	• Give and follow an algorithm to turn right or left. • Give and follow an algorithm to make half and quarter turns. • Give and follow an algorithm using the commands right 90 and left 90. • Give, follow and complete an algorithm. • Use recognised language in an algorithm. • Create, test and debug an algorithm	• Create an algorithm to move or rotate the turtle • Create an algorithm and use the repeat command.	• Create and debug an algorithm using the move, rotate and repeat commands. • Create and debug algorithms to draw patterns. • Create and debug algorithms using penup and pendown. • Create and debug algorithms that draw regular polygons.	• Create and debug an algorithm to create a procedure. • Create and debug an algorithm that uses setpos to draw shapes. • Create and debug an algorithm with different colours. • Create and debug an algorithm to fill areas with colour. • Create and debug an algorithm to produce text. • Create and debug an algorithm to draw arcs.		
	Flowol					• Draw and interpret a flowchart with the correct symbols. • Create and edit a flowchart to control a simulated device. • Control multiple outputs at the same time. • Use a decision symbol based on the status of an input. • Create a flowchart program containing a subroutine. • Design, write and debug my own flowchart program for a given task.	
	Kodu						• Investigate and evaluate the features of programming software. • Program Kodu using 'When' and 'Do' instructions. • Use tools and add features to create an original landscape in Kodu. • Analyse and deconstruct code to work out its purpose. • Program a character to be controlled around a custom track to reach a goal.

							• Program a character to follow an automatic path.
		Year 1	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**
Digital Literacy	Research Skills		• Search the Internet using one word. • Stay safe when using the Internet. • Search the Internet to find results suitable for children • Search for information safely online. • Follow links to another web page • Follow links safely online. • Create content for an online blog • Use a camera to take safe photos to use online • Create content for an online blog • Use an online blog safely and respectfully. • Post positive comments and responses on a blog	Research for Topic	Research for Topic	Research for Topic	Research for Topic
	Research and Communication			• Identify how word order affects search results. • Explain how searches return results. • Save and share web pages. • Identify the ways, and investigate how, we communicate online.			

				• Explain how to stay safe when communicating online. • Explain why I need to be responsible online.			
Digital Literacy	Research and Web design					• Evaluate web pages. • Create a webpage layout. • Add text to a webpage. • Add images to a webpage. • Add hyperlinks into a webpage. • Publish and share my webpage.	
	Online Safety	• Create, name and save digital work • Safely search for images online • Understand how to safely communicate online • Understand what personal information I need to keep safe • Explore how to use email to safely communicate • Apply knowledge to help others make good choices online.	• Understand that the information they put online leaves a digital footprint • Use keywords in an online search to find out about a topic • Recognise whether a website is appropriate for children • Rate and review informative websites • Identify kind and unkind behaviour online • Apply knowledge of safe and sensible online activities to different situations	• Know what cyber bullying is and how to address it • Understand how websites use advertisements to promote products • Create strong passwords and understand privacy settings • Send and receive emails • Explore different ways children can communicate online • Use knowledge about online safety to plan a party online	• Identify how a message can hurt someone's feelings and know how to respond to a hurtful message online • Use a search engine accurately • Understand the term plagiarism and how to avoid it • Create a safe online profile • Explain how to be a responsible digital citizen • Create and online safety superhero character	• Identify spam emails and what to do with them • Write citations for the websites used for research • Create strong passwords • Recognise when, why and how photographs seen online may have been edited • Apply online safety rules to real-life situations	• Find similarities and differences between in-person and cyber bullying • Identify secure websites by identifying privacy seals of approval • Understand the benefits and pitfalls of online relationships • Identify information that should never be shared • Identify how the media plays a powerful role in shaping ideas about girls and boys • Apply e-safety knowledge to online activities • Use knowledge of e-safety to create a multiple choice quiz