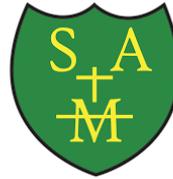


Computing at St Augustine's Catholic Primary School



Year Group End Points

“The Computer was born to solve problems that did not exist before” Bill Gates

Year Group	Term	Knowledge	Skills
EYFS		<ul style="list-style-type: none">I know I can use technology to find information online.	<ul style="list-style-type: none">I can use a device to interact with age-appropriate computer.I can play with beebots and can explore how to make them move by inputting instructions
Year 1	Autumn	<p>Computer Systems and Networks</p> <ul style="list-style-type: none">I can identify a computer and its main parts, switching it on and logging on.I can say what a keyboard and mouse is.I can explain technology as something that helps us	<p>Computer Systems and Networks</p> <ul style="list-style-type: none">I can save my work and open my work from a fileI can use a mouse to click and dragI can type my name on a computerI can use the arrow keys to move the cursor

		<ul style="list-style-type: none"> • I can locate examples of technology in the classroom • I can identify rules to keep us safe when we are using technology responsibly 	
	Spring 1	<p>Creating Media Digital Painting</p> <ul style="list-style-type: none"> • I can describe what different freehand tools do • I can explain why I chose the tools I used • I can use a computer on my own to paint a picture • I can compare painting a picture on a computer and on paper • I can say whether I prefer painting using a computer or using paper • I can spot the differences between painting on a computer and on paper 	<p>Creating Media Digital Painting</p> <ul style="list-style-type: none"> • I can draw lines on a screen • I can use the paint tools to draw a picture • I can use the shape and line tools effectively • I can use the shape and line tools to recreate the work of an artist
	Spring 2	<p>Creating Media – Digital Writing</p> <ul style="list-style-type: none"> • I can use a computer to write • I can explain what the keys I have learnt about already do • I can identify the toolbar • I know that the look of the text can be changed on a computer 	<p>Creating Media – Digital Writing</p> <ul style="list-style-type: none"> • I can write on a computer • I can use backspace to remove text • I can use letter, number and space keys • I can use bold, italic and underline • I can type capital letters • I can select all the text by clicking and dragging
	Summer 1	<p>Data and Information - Grouping Data</p> <ul style="list-style-type: none"> • I can sort and group objects by their properties 	<p>Data and Information - Grouping Data</p> <ul style="list-style-type: none"> • I can describe objects using labels • I can match objects to groups • I can find objects with similar properties

			<ul style="list-style-type: none"> • I can decide how to group objects to answer a question • I can record and share what I have found
	Summer 2	<p>Programming A – Moving a robot</p> <ul style="list-style-type: none"> • I can plan a simple program • I can explain what a given command will do • I can combine 4 direction commands to make sequences 	<p>Programming A – Moving a robot</p> <ul style="list-style-type: none"> • I can run a command on a device • I can give directions • I can start a sequence from the same place • I can experiment with turn and move commands to move a robot • I can predict the outcome of a sequence involving up to 4 commands • I can debug my program • I can explain what my program should do
Year 2	Autumn	<p>Computing Systems and Networks – IT around us</p> <ul style="list-style-type: none"> • I can recognise the uses and features of information technology • I can identify uses of technology at St Augustine’s • I can identify use of technology beyond St Augustine’s • I understand how technology helps us and how to use information technology safely. 	<p>Computing Systems and Networks – IT around us</p> <ul style="list-style-type: none"> • I can use IT for different types of activities including moving and resizing images.
	Spring 1	Creating Media – Digital photography	Creating Media – Digital photography

		<ul style="list-style-type: none"> • I know how to use a digital device to take a photograph • I know that using tools can change/improve an image 	<ul style="list-style-type: none"> • I can use a digital device to take a photograph • I can explain the process of taking a good photograph • I can improve a photo by retaking it • I can explore the effect that light has on a photo • I can use a tool to achieve a desired effect
	Spring 2	<p>Creating Media – Making Music</p> <ul style="list-style-type: none"> • I can use a computer to create a musical pattern 	<p>Creating Media – Making Music</p> <ul style="list-style-type: none"> • I can use a computer to experiment with pitch • I can refine my musical pattern on a computer • I can create my animal's rhythm on a computer
	Summer 1	<p>Data and Information – Pictograms</p> <ul style="list-style-type: none"> • I can recognise that objects can be represented as pictures • I can create a pictogram using technology 	<p>Data and Information – Pictograms</p> <ul style="list-style-type: none"> • I can enter data on to a computer • I can use a computer to view data in a different format • I can use a tally chart to create a pictogram • I can use technology to organise and retrieve digital content
	Summer 2	<p>Programming A – Robot algorithms</p> <ul style="list-style-type: none"> • I can understand what happens when we change the order of instructions 	<p>Programming A – Robot algorithms</p> <ul style="list-style-type: none"> • I can use an algorithm to program a sequence on a floor robot

		<ul style="list-style-type: none"> I know how to create and debug simple programs 	<ul style="list-style-type: none"> I can use the same instructions to create different algorithms I can use my algorithm to create a program I can test and debug each part of the program
Year 3	Autumn 1	<p>Creating Media – Desktop Publishing</p> <ul style="list-style-type: none"> I can recognise how text and images convey information I can add pages to a desktop publishing publication 	<p>Creating Media – Desktop Publishing</p> <ul style="list-style-type: none"> I can change font style, size and colour for a given purpose I can change page orientation I can use placeholders I can use text and images to create a magazine cover I can choose different layouts for text and pictures
	Autumn 2	<p>Computing Systems and Networks – Connecting Computers</p> <ul style="list-style-type: none"> I can explain how digital devices function I can identify input and output devices I can explain how a computer network can be used to share information I can recognise the physical components of a network 	<p>Computing Systems and Networks – Connecting Computers</p> <ul style="list-style-type: none"> I can design a digital device
	Spring 1	<p>Creating Media – Stop-frame animation</p> <ul style="list-style-type: none"> I can plan an animation 	<p>Creating Media – Stop-frame animation</p> <ul style="list-style-type: none"> I can use onion skinning to help make small changes between frames

		<ul style="list-style-type: none"> I can relate animated movement with a sequence of images 	<ul style="list-style-type: none"> I can create an effective flip book-style animation I can add media to my animation
	Spring 2	<p>Programming A – Sequencing Sounds</p> <ul style="list-style-type: none"> I know a wider range of commands that can be used to write more complex algorithms 	<p>Programming A – Sequencing Sounds</p> <ul style="list-style-type: none"> I can create a program using a design I can create a sequence of connected commands I can start a program in different ways I can combine sounds commands I can order notes into a sequence I can decide the actions of each sprite in a program I can implement my algorithm as code
	Summer 1	<p>Data and Information -Branching Databases</p> <ul style="list-style-type: none"> I can explain why it is helpful for a database to be well structured using technology 	<p>Data and Information -Branching Databases</p> <ul style="list-style-type: none"> I can create a branching database using technology
	Summer 2	<p>Programming B – Events and Actions in Programs</p> <ul style="list-style-type: none"> I can identify bugs in a program I can develop my program by adding features I can design and create a maze based program 	<p>Programming B – Events and Actions in Programs</p> <ul style="list-style-type: none"> I can program movement I can choose blocks to set up my program I can build sequence of designs to make my program work I can match a piece of code to an outcome I can modify a program using a design I can test a program against a given design
Year 4	Autumn 1	Computing Systems and networks	Computing Systems and networks

		<ul style="list-style-type: none"> • I can explain the function of networks including the internet • I can describe how content can be added and accessed on the WWW • I can recognise that the content of WWW is created by people 	<ul style="list-style-type: none"> • I can access the internet WWW
	Autumn 2	<p>Creating Media – Audio Editing</p> <ul style="list-style-type: none"> • I know that audio recordings can be edited • I can recognise the different parts of creating a podcast project • I can enhance audio to enhance my podcast project 	<p>Creating Media – Audio Editing</p> <ul style="list-style-type: none"> • I can use a computer to record audio • I can inspect the soundwave view to trim my audio recording • I can re-record my voice to improve my recording • I can save my project for future editing • I can open my project for further improvements
	Spring 1	<p>Creating Media – Photo Editing</p> <ul style="list-style-type: none"> • I can explain that the composition of digital images can be changed • I can explain that colours can be changed in digital photography • I can explain that images can be combined 	<p>Creating Media – Photo Editing</p> <ul style="list-style-type: none"> • I can improve an image by rotating • I can use photo editing program to crop an image • I can use different colour effects • I can add to the composition of an image by cloning • I can remove parts of an image by cloning • I can use a range of tools to copy between images

			<ul style="list-style-type: none"> I can combine text and image to complete my project
	Spring 2	<p>Data and Information – Data Logging</p> <ul style="list-style-type: none"> I can explain that a data logger collects “data points” from sensors over time I can recognise how a computer can help us analyse data 	<p>Data and Information – Data Logging</p> <ul style="list-style-type: none"> I can use a data logger to collect data I can interpret information collected by a data logger
	Summer 1	<p>Programming A – Repetition in Shape</p> <ul style="list-style-type: none"> I can create a program in a text-based language 	<p>Programming A – Repetition in Shape</p> <ul style="list-style-type: none"> I can program a computer by typing commands I can write an algorithm to produce a given outcome I can use count-controlled loop for a given outcome I can develop my program by debugging it
	Summer 2	<p>Programming B – Repetition in Games</p> <ul style="list-style-type: none"> To develop a design that includes 2 or more loops which run at the same time To create a project that includes repetition 	<p>Programming B – Repetition in Games</p> <ul style="list-style-type: none"> I can modify loops to produce a given outcome I can build a program that follows my design
Year 5	Autumn 1	<p>Creating Media – Video Editing</p> <ul style="list-style-type: none"> To capture video using a range of techniques To create a storyboard 	<p>Creating Media – Video Editing</p> <ul style="list-style-type: none"> I can capture a video using a range of filming techniques I can create and save video content I can store, retrieve and export my video to a computer I can edit my video

	Autumn 2	<p>Computing Systems and Networks – Sharing Information</p> <ul style="list-style-type: none"> • To explain that computers can be connected together to form systems • To describe how search engines select results • To explain how search results are ranked and to understand why the order of results is important. 	<p>Computing Systems and Networks – Sharing Information</p> <ul style="list-style-type: none"> • I can use a search engine on WWW
	Spring 1	<p>Creating Media – Vector drawing</p> <ul style="list-style-type: none"> • To identify that drawing tools can be used to produce different outcomes 	<p>Creating Media – Vector drawing</p> <ul style="list-style-type: none"> • I can experiment with the shape and line tool • I can move, resize and rotate objects that I have duplicated • I can use the zoom tool to help me add details to my drawings • I can change the order of layers in a vector drawing • I can use laying to create an image • I can copy part of a drawing by duplicating several objects
	Spring 2	<p>Data and Information - Flat file databases</p> <ul style="list-style-type: none"> • I can explain that computer programs can be used to compare data visually • I can use a real world database to answer questions 	<p>Data and Information - Flat file databases</p> <ul style="list-style-type: none"> • I can refine a chart by selecting a particular filter
	Summer 1	<p>Programming A – Selection in Physical Computing</p>	<p>Programming A – Selection in Physical Computing</p>

		<ul style="list-style-type: none"> • To explain that a loop can be used to repeatedly check whether a condition has been met • To explain that a loop can stop when a condition is met • To control a simple circuit connected to a computer 	<ul style="list-style-type: none"> • I can program a microcontroller to make a LED switch on • I can create a simple circuit and connect it to a microcontroller • I can use if and then commands algorithms • I can test and debug my project
	Summer 2	<p>Programming B – Selection in Quizzes</p> <ul style="list-style-type: none"> • To design and create a program which uses selection 	<p>Programming B – Selection in Quizzes</p> <ul style="list-style-type: none"> • I can implement my algorithm to create the first section of my program • I can identify the setup code needed for my program
Year 6	Autumn 1	<p>Computing Systems and Networks – Internet Communication</p> <ul style="list-style-type: none"> • I can explain the importance of internet addresses • I can recognise how data is transferred across the internet • I can explain how sharing information online can help people to work together 	<p>Computing Systems and Networks – Internet Communication</p> <ul style="list-style-type: none"> • I can send information over the internet in different ways • I can access shared files stored online
	Autumn 2	<p>Creating Media – Webpage creation</p> <ul style="list-style-type: none"> • To review an existing website and consider its structure • To plan the features of a web page • To outline the need for a navigation path 	<p>Creating Media – Webpage creation</p> <ul style="list-style-type: none"> • I can find copyright images • I can add content to my own webpage • I can use multiple webpages and link them using hyperlinks

			<ul style="list-style-type: none"> I can create hyperlinks to link to other peoples work
	Spring 1	<p>Data and Information – Introduction to Spreadsheets</p> <ul style="list-style-type: none"> I can choose suitable ways to present data 	<p>Data and Information – Introduction to Spreadsheets</p> <ul style="list-style-type: none"> I can enter data into a spreadsheet I can apply an appropriate format to a cell I can construct a formula in a spreadsheet I can apply a formula to multiple cells by duplicating I can create a formula which includes a range of cells I can produce a chart
	Spring 2	<p>Programming A – Variables in Games</p> <ul style="list-style-type: none"> To explain why a variable is used in a program To choose how to improve a game by using variables To design a project that builds on a given example 	<p>Programming A – Variables in Games</p> <ul style="list-style-type: none"> I can create algorithms for my project I can use variables to extend my game I can create the artwork for my project
	Summer 1	<p>Programming B – Sensing</p> <ul style="list-style-type: none"> To create a program to run on a controllable device To design a project that uses inputs and outputs on a controllable device To develop a project that uses inputs and outputs on a controllable device 	<p>Programming B – Sensing</p> <ul style="list-style-type: none"> I can test my program on an emulator I can transfer my program to a controllable device I can determine the flow of a program using selection

			<ul style="list-style-type: none"> • I can use a variable in an if, then, else, statement to select the flow of a program • I can use a condition to change a variable • I can modify a program to achieve a different outcome • I can use operand in an if then statement
	Summer 2	<p>Creating Media – 3D Modelling</p> <ul style="list-style-type: none"> • I know that you can work in 3D on a computer • I can recognise that 3D images can be modified • To create a 3D model 	<p>Creating Media – 3D Modelling</p> <ul style="list-style-type: none"> • I can add 3D shapes to a project • I can move 3D shapes relative to one another • I can view 3D shapes in different perspectives • I can lift/lower 3D shapes • I can recolour a 3D shape • I can resize an object in 3 dimensions • I can duplicate 3D images • I can rotate objects in 3 dimensions • I can construct a 3D model