St. Augustine's Catholic Primary School

We try to follow Jesus by loving each other and caring for God's world.

Computing ~ Progression of Skills

Key Concepts	EYFS	KS1	LKS2	UKS2
Computing Systems and Networks	- talk about different kinds of information such as pictures and words. - control and move objects on a screen. - use and operate simple technological devices in everyday life. - talk about and use 'make believe' technology in play - drag and drop objects in a game - type using a keyboard - use a mouse - read an ebook - navigate an ebook - put sounds and words in the correct sequence so that they make sense	- choose a piece of technology to do a job - recognise that some technology can be used in different ways - identify the main parts of a computer - use a mouse in different ways - use a keyboard to type - use the keyboard to edit text - describe some uses of computers - identify information technology in school - identify information technology beyond school - show how to use information technology safely - understanding of technology and how they interact with it - develop this understanding to become familiar with the term information technology and will be able to identify common features of IT - builds on the learners' understanding of using technology safely and responsibly	- identify input and output devices - explain that a computer system accepts an input and processes it to produce an output - explain how a computer network can be used to share information - explain the role of a switch, server, and wireless access point in a network - identify network devices around me - explain how networks can be connected to other networks - knowledge and understanding of technology by focusing on digital and non-digital devices, and introducing the concept of computers connected together as a network - explore the internet as a network of networks - knowledge and understanding of networks - continue to develop their knowledge and understanding of computing systems and online collaborative working	- describe the input and output of a search engine - demonstrate that different search terms produce different results - evaluate the results of search terms - knowledge and understanding of computing systems and online collaborative working - outline methods of communicating and collaborating using the internet - choose methods of internet communication and collaboration for given purposes - evaluate different methods of online communication and collaboration - decide what you should and should not share online - knowledge and understanding of computing systems and online collaborative working

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Programming	- use a Bee-Bot and make it move. - choose which buttons to press to give instructions to a BeeBot. - choose buttons to control other programmable toys. - choose instructions to control applications to play games. - follow algorithms - drag and drop objects using a mouse or touch screen - create an algorithm - debug an algorithm	- knowledge and understanding of giving and following instructions - choose a series of words that can be enacted as a program - giving instructions to a robot by programming it - choose a series of commands that can be run as a program - run a program on a device - have had some experience of creating short programs using floor robots and predicting the outcome of a simple program - knowledge and understanding of algorithms and how they are implemented as programs on digital devices - spend time looking at how the order of commands affects outcomes - use this knowledge and logical reasoning to trace programs and predict outcomes - knowledge and understanding of instructions in sequences and the use of logical reasoning to predict outcomes	- knowledge and understanding of programming, building on prior experience of programming in KS1 - experience of other languages or environments - use floor robots and ScratchJr to experience the concept of sequences - use a sequence of commands in a program using count-controlled loops - create algorithms and then implement those algorithms as code	- prior experience of programming using block-based construction (e.g. scratch) and understand the concepts of sequence and repetition - use floor robots and ScratchJr to experience other languages or environments - prior experience of programming in Scratch - familiar with the programming constructs of sequence, repetition, and selection - understanding of sequence, repetition and selection independently within programming

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Data and Information	- sort objects into groups - put objects in the correct order (sequence) - make their own patterns - create simple rhythms with repeating patterns - spot repeating patterns - identify the next object in a pattern	- improve their ability to use dragging and dropping skills on a device - labelling and grouping objects based on their properties - knowledge and understanding of grouping data - label objects and grouped them based on different properties - develop their understanding of attributes (properties) using branching databases to structure data according to different object attributes	- knowledge and understanding of the categories of data handling, with a particular focus on implementation - develop their understanding of attributes and begin to construct and interrogate branching databases as a means of displaying and retrieving information. - knowledge and understanding of data and how it can be collected over time to answer questions - introduces the idea of automatic data collection	- knowledge and understanding of why and how information might be stored in a database, and looks at how tools within a database can help us to answer questions about our data - demonstrate how a database can help us display data visually, and how real-life databases can be used to help us solve problems - create a presentation showing understanding and application of all the tools used - knowledge and understanding of data and teaches them how to organise and modify data within spreadsheets

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Creating Media	- use technology to draw pictures on a computer/ tablet device. - use technology to record sounds and listen back to them. - use technology to take photographs or videos to record images and events. - use a mouse or a touch screen - tinker, change and manipulate digital media - create pictures using shapes and digital tools - create a piece of music by organising sounds	- know how to switch their device on - introduction to keyboard and mouse skills - type in usernames - type in passwords - create and manipulate digital content, focussing on using a word processor - develop their ability to find and use the keys on a keyboard in order to create digital content - manipulating the resulting text, making cosmetic changes, and justifying their reason for making these changes - understanding of how photos are captured and can be manipulated for different purposes	- knowledge and understanding of using digital devices to combine text and images building on work from KS1 - knowledge and understanding of using digital devices to create media, exploring how they can create stop-frame animations - knowledge and understanding of creating media, by focusing on the recording and editing of sound to produce a podcast - experience of making choices on a tablet/computer - navigate within an application - editing digital images and considering the impact that editing can have on an image - consider how editing can be used appropriately for different scenarios, and create and evaluate 'fake' images, combining all of their new skills	- knowledge and understanding of creating media by guiding them systematically through the process involved in creating a video - developed the skills required to plan, record, edit, and finalise a video - explore combining audio with video in the 'Video editing' - knowledge and understanding of digital painting and has some links to desktop publishing in which learners used digital images - create images that they could use in desktop publishing documents - work with 2D graphics applications - knowledge and understanding of creating 3D graphics using a computer - knowledge and understanding of the following: digital writing, digital painting, desktop publishing, digital photography, photo editing, and vector drawing