



Computing Whole School Progression Map							
	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Information Technology	<p>Talk about different kinds of information such as pictures, videos, text and sound.</p> <p>Use a mouse and touch screen to move objects on a screen.</p> <p>Create shapes and text on a screen.</p>	<p>Talk about the different ways in which information can be shown.</p> <p>Use technology to collect information, including photos, videos and sound.</p> <p>Sort different kinds of information and present it to others.</p> <p>Add information to a pictogram and talk about their findings.</p> <p>Use software with support, to create, store and edit digital content using appropriate file and folder names.</p> <p>Use the keyboard or a word bank on a device to enter text into a program.</p> <p>Understand some of the basic functions on a keyboard (Backspace, Caps Lock, Enter)</p> <p>Save information in a specific place and retrieve it again.</p>	<p>Create a graph or chart using data collected on a specific topic area.</p> <p>Talk about the data that is shown in their chart or graph.</p> <p>Explain how investigating data can be used to answer a question.</p> <p>Use a variety of software to manipulate and present digital content in different ways with increasing independence.</p> <p>Talk about the different ways to use technology to collect information, including a camera or sound recorder.</p> <p>Use the keyboard on their device to add, delete, edit and format text.</p> <p>Talk about an online tool that will help them to share their ideas with other people.</p> <p>Save and open files on the device they use from a specific file location.</p>	<p>Understand the difference between data and information.</p> <p>Talk about the different ways data can be converted into information.</p> <p>Search a ready-made database to answer specific questions.</p> <p>Collect data to help answer questions about a specific topic or theme.</p> <p>Add to and edit an existing database.</p> <p>Combine a mixture of text, graphics and sound to share ideas and learning.</p> <p>Use appropriate keyboard commands to amend text.</p> <p>Be able to effectively use a spell checker.</p> <p>Evaluate their work and improve its effectiveness.</p> <p>Use an appropriate tool to share their work online.</p>	<p>Demonstrate the different ways data can be organised.</p> <p>Demonstrate the different ways data can be converted into information.</p> <p>Make a branching database.</p> <p>Collect data and identify where it could be inaccurate.</p> <p>Plan, create and search a database.</p> <p>Select the best way to present data to a specific audience.</p> <p>Log data using a device.</p> <p>Use photos, video and sound to create an atmosphere when presenting to different audiences.</p> <p>Be confident to explore new media to extend what they can achieve.</p> <p>Change the appearance of text to increase its effectiveness depending on the audience or mood.</p>	<p>Choose an appropriate tool to help them collect data.</p> <p>Present data in an appropriate way depending on the theme or audience.</p> <p>Use a spreadsheet and database to collect, record and evaluate data.</p> <p>Search a database using different operators to refine a search.</p> <p>Talk about errors in data and suggest how it could be checked.</p> <p>Use text, photo, sound and video editing tools to evaluate and refine their work.</p> <p>Be able to use a variety of familiar and unfamiliar software by using a pre-existing skill set.</p> <p>Select, use and combine the appropriate technology tools to create effects in media.</p> <p>Select an appropriate online or offline tool to</p>	<p>Select the most effective tool to collect data for their investigation.</p> <p>Check the data they collect for accuracy and plausibility.</p> <p>Plan the process needed to investigate a set environment or setting.</p> <p>Interpret and present the data they collect.</p> <p>Use the skills developed to interrogate a database.</p> <p>Uses a range of strategies to increase the accuracy of keyword searches.</p> <p>Makes confident inferences about their effectiveness.</p> <p>Talk about audience, atmosphere and structure when planning a particular media outcome.</p> <p>Combine a range of media, recognising the contribution of each to achieve a particular outcome.</p>



St Jude's Catholic Primary School

					<p>Create, modify and present documents for a particular purpose and audience.</p> <p>Use a keyboard confidently and make use of a spellchecker to write and review their work.</p> <p>Use an appropriate tool to share their work and collaborate online.</p> <p>Be able to evaluate other people's work and give them constructive feedback to help them improve their work.</p>	<p>create and share ideas.</p> <p>Evaluate and improve their own work and support others in improving their work.</p> <p>Acknowledges sources of information appropriately.</p>	<p>Confidently identify the potential of unfamiliar technology and how it can be used effectively.</p> <p>Explain why they select a particular online tool for a specific purpose.</p> <p>Be digitally discerning when evaluating the effectiveness of their own work and the work of others.</p> <p>Recognises the importance of copyright and how to acknowledge the sources of information.</p>
Computer Science	<p>Be able to give a floor robot instructions to make it move.</p> <p>Use simple software and explain what you are doing.</p> <p>Understand what happens when you click a button or touch an icon.</p>	<p>Give instructions to a friend and follow their instructions to move around a space.</p> <p>Describe what happens when buttons are pressed on a robot or device.</p> <p>Press buttons in the correct order to make a robot follow a short sequence.</p> <p>Understand what an algorithm is and be able to create a simple algorithm.</p> <p>Understand and explain how algorithms are used in every-day life.</p> <p>Begin to predict what will happen for a short sequence of instructions.</p> <p>Begin to use different</p>	<p>Understand what an algorithm is and demonstrate simple linear algorithms.</p> <p>Be able to explain the order needed to do things to make something happen and to talk about it as an algorithm.</p> <p>Programme a robot or software to do a particular task.</p> <p>Look at a basic program and explain what will happen.</p> <p>Use programming software and applications to make objects move.</p> <p>Use logical reasoning to predict and debug more complex</p>	<p>Understand how an algorithm is implemented using a sequence of precise instructions.</p> <p>Can predict the outcome of a sequence of precise instructions.</p> <p>Repeatedly test a program and recognise when they need to debug it.</p> <p>Detect a problem in an algorithm, which could result in a different outcome to the one intended.</p> <p>Understand what inputs and outputs are, how they can be used.</p> <p>Provide examples of how to use inputs and outputs effectively.</p>	<p>Design simple algorithms using loops and repeats, whilst detecting and correcting errors is debugging.</p> <p>Write and execute an efficient program, using loops such as forever, repeat & repeat until commands.</p> <p>Decompose a problem into smaller parts with some verbal reasoning.</p> <p>Has an understanding of how sequencing, using inputs and repetition in programs has specific effects on the output, works with 'loops' and understands their effect.</p> <p>Recognise that an algorithm will help to sequence more</p>	<p>Program a condition that uses a sensor to detect a change, which can select an action within a program.</p> <p>Decomposes more open-ended problems into smaller parts, provides some reasoning for their choices.</p> <p>Approaches a range of problems using computationally thinking concepts, helping them to design other algorithms for other specific outcomes.</p> <p>Design, write and execute an efficient program, including selection (IF...THEN) command.</p>	<p>Understand the importance of planning, testing and correcting algorithms.</p> <p>Demonstrate a range of different strategies to solve a problem including: abstraction, decomposition, logic & evaluation.</p> <p>Understand why sequence & patterns are important when creating simple algorithms that are part of a more complex program.</p> <p>Gives reasoning for each step within algorithms and applying them to a program.</p> <p>Understand & develop complex flow diagrams.</p>



St Jude's Catholic Primary School

		<p>software or applications to create movement and patterns on a screen.</p> <p>Use the word debug to correct an algorithm that doesn't work in the way it was intended.</p>	<p>programs.</p> <p>Can create and debug with improved confidence & efficiency.</p> <p>Begin to program using simple block code.</p>	<p>Designs, writes, executes and debugs programs of increasing complexity that accomplish a specific goal.</p> <p>Use logical reasoning to predict and debug more complex programs including inputs and outputs.</p>	<p>complex programs.</p> <p>Use logical reasoning to predict and debug more complex programs including loops and repeats.</p>	<p>Change an input to a program to achieve a different output.</p> <p>Use logical reasoning to predict and debug more complex programs including selection.</p> <p>Uses programs linked to physical systems and sensors e.g. the alarm goes off when the sensor is triggered.</p> <p>Design, write and execute an efficient program, which demonstrates and understanding of the difference between, and appropriate use of IF...THEN, IF...THEN...ELSE, and nested IF statements.</p>	<p>Use a variable to increase programming possibilities.</p> <p>Use a variable and relational operators (e.g. < = >) within a loop to stop a program.</p> <p>Evaluate the effectiveness and efficiency of an algorithm while continually testing the programming of that program.</p> <p>Use different inputs (including sensors) to control a device or onscreen action and predict what will happen.</p> <p>Use logical reasoning to predict and debug more complex programs including: selection, variables and operators.</p>
Digital Literacy	<p>Can identify a device that uses technology.</p> <p>Ask permission before using the Internet.</p> <p>Tell an adult if something worrying or unexpected happens whilst using technology.</p>	<p>Understand why we need passwords.</p> <p>Understand that we must keep passwords private.</p> <p>Explain what personal information is.</p> <p>Understand that we must keep personal information private.</p> <p>Communicate safely and respectfully online.</p> <p>Know what to do when concerned about online content.</p>	<p>Understand the need to keep a password private.</p> <p>Understand the need to keep personal information private.</p> <p>Demonstrate the use of technology responsibly in terms of how we use it and the time we spend using it.</p> <p>Know how to report inappropriate content or contact online.</p>	<p>Children consider their responsibilities and actions to others online.</p> <p>Children consider that all of the media they see could have been altered.</p> <p>Understand how to use a search engine responsibly and safety.</p>	<p>Understand that media can be edited online for advertising and other purposes.</p> <p>Recognise what is acceptable and unacceptable behaviour when using technology and online services.</p> <p>Children understand how effective a strong password is and what a strong password looks like.</p>	<p>Be aware of their digital footprint.</p> <p>Understand the dangers of building online relationships.</p> <p>Explain what the consequences might be to using technology inappropriately or accessing inappropriate content intentionally.</p>	<p>Be aware of fake news and how to dissect it.</p> <p>Understand the difference between misinformation and disinformation.</p> <p>Understand what Copywriting is and using someone else's work responsibly.</p> <p>Manage their conduct and contact appropriately and safely when using technology and online services.</p>



St Jude's Catholic Primary School

		Know what to do if someone tries to contact you online.					
ICT Beyond School	<p>Talk about technology that is used at home, in school and in the world around them.</p> <p>Use a safe part of the Internet to explore, play and learn.</p>	<p>Recognise that a range of digital devices and products can be considered computers.</p> <p>Recognise the ways in which technology is used in their homes and community.</p> <p>Understand that computers have no intelligence and can do nothing without being programmed.</p> <p>Begin to identify some of the benefits to using technology.</p>	<p>Children can explain why they use technology in the classroom, in their homes and in the community.</p> <p>Identify the benefits of using technology, such as creating content and communicating efficiently.</p> <p>Can identify a computer by knowing that it has inputs, a processor and outputs.</p> <p>Can identify parts of a computer including what an input and output is.</p>	<p>Save and retrieve work online, on the school network and their own device.</p> <p>Tell you ways to communicate with others online.</p> <p>Knows how navigate the web responsibly.</p> <p>Can carry out effective web searches to collect digital content.</p> <p>Think about whether they can use images that they find online in their own work.</p>	<p>Understand the difference between the Internet and online services such as the World Wide Web, instant messaging and email.</p> <p>Tell you whether a resource they are using is from the World Wide Web, the school network or their own work.</p> <p>Identify key words to use when searching safely on the World Wide Web.</p> <p>Show an awareness of a range of Internet services such as the World Wide Web, email and instant messaging.</p> <p>Explain how to check who owns photos, text and clipart.</p>	<p>Use different online tools for different purposes.</p> <p>Use a search engine effectively to find appropriate information and check the reliability of a website.</p> <p>Understand how search results are selected and ranked and the algorithms they use.</p> <p>Recognise and evaluate different types of information they find on the World Wide Web.</p> <p>Think about the reliability of information they read on the World Wide Web or other Internet services (Fake News).</p>	<p>Explain the Internet services they need to use for different purposes.</p> <p>Describe the different parts of a webpage.</p> <p>Understands how to construct a website using basic HTML tags.</p> <p>Explain what copyright is and acknowledge the sources of information that they find online.</p> <p>Understands how data is transmitted across a network.</p> <p>Understand what IP is and how it's used.</p> <p>Can explain how networks use the Internet to send and receive data.</p>