

St Anne's Catholic Primary School
Computing Progression Map

EYFS				
	Personal, Social and Emotional Development	Physical Development	Understanding the World	Expressive Arts and Design
Nursery	<ul style="list-style-type: none"> Remember rules without needing an adult to remind them. 	<ul style="list-style-type: none"> Match their developing physical skills to tasks and activities in the setting. 	Explore how things work.	
Reception	<ul style="list-style-type: none"> Show resilience and perseverance in the face of a challenge. Know and talk about the different factors that support their overall health and wellbeing: - sensible amounts of 'screen time' 	<ul style="list-style-type: none"> Develop their small motor skills so that they can use a range of tools competently, safely and confidently. 		<ul style="list-style-type: none"> Explore, use and refine a variety of artistic effects to express their ideas and feelings.
ELG	<p style="text-align: center;">Managing Self</p> <ul style="list-style-type: none"> Be confident to try new activities and show independence, resilience and perseverance in the face of challenge. Explain the reasons for rules, know right from wrong and try to behave accordingly. 			<p style="text-align: center;">Creating with Materials</p> <ul style="list-style-type: none"> Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.

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Information Technology					
Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<ul style="list-style-type: none"> • Talk about the different ways in which information can be shown. • Use technology to collect information, including photos, videos and sound. • Sort different kinds of information and present it to others. • Add information to a pictogram and talk about their findings. • Use software with support, to create, store and edit digital content using appropriate file and folder names. • Use the keyboard or a word bank on a device to enter text into a program. • Understand some of the basic functions on a 	<ul style="list-style-type: none"> • Create a graph or chart using data collected on a specific topic area. • Talk about the data that is shown in their chart or graph. • Explain how investigating data can be used to answer a question. • Use a variety of software to manipulate and present digital content in different ways with increasing independence. • Talk about the different ways to use technology to collect information, including a camera or sound recorder. <ul style="list-style-type: none"> • Use the keyboard on their device to add, delete, edit and format text. 	<ul style="list-style-type: none"> • Understand the difference between data and information. • Talk about the different ways data can be converted into information. • Combine a mixture of text, graphics and sound to share ideas and learning. • Use appropriate keyboard commands to amend text. • Be able to effectively use a spell checker. • Evaluate their work and improve its effectiveness. • Use an appropriate tool to share their work online. 	<ul style="list-style-type: none"> • Demonstrate the different ways data can be organised. • Demonstrate the different ways data can be converted into information. • Make a branching database. • Collect data and identify where it could be inaccurate. • Plan, create and search a database. • Select the best way to present data to a specific audience. • Log data using a device. • Be able to evaluate other people's work and give them constructive feedback 	<ul style="list-style-type: none"> • Choose an appropriate tool to help them collect data. • Present data in an appropriate way depending on the theme or audience. • Search a database using different operators to refine a search. 4/5 mixed class. Other Y5s addresses this last year. • Talk about errors in data and suggest how it could be checked. • Be able to use a variety of familiar and unfamiliar software by using a pre existing skill set. • Select, use and combine the appropriate 	<ul style="list-style-type: none"> • Select the most effective tool to collect data for their investigation. • Check the data they collect for accuracy and plausibility, • Plan the process needed to investigate a set environment or setting. • Interpret and present the data they collect. • Use the skills developed to interrogate a database. • Uses a range of strategies to increase the accuracy of keyword searches. Makes confident inferences about their effectiveness.

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<p>keyboard (Backspace, Caps Lock, Enter)</p> <ul style="list-style-type: none"> • Save information in a specific place and retrieve it again. • Use technology to collect information, including photos, videos and sounds. 	<ul style="list-style-type: none"> • Talk about an online tool that will help them to share their ideas with other people. • Save and open files on the device they use from a specific file location. 		<p>to help them improve their work.</p>	<p>technology tools to create effects in media.</p> <ul style="list-style-type: none"> • Select an appropriate online or offline tool to create and share ideas. • Evaluate and improve their own work and support others in improving their work. • Acknowledges sources of information appropriately 	<ul style="list-style-type: none"> • Confidently identify the potential of unfamiliar technology and how it can be used effectively. • Explain why they select a particular online tool for a specific purpose. • Be digitally discerning when evaluating the effectiveness of their own work and the work of others. • Recognises the importance of copyright and how to acknowledge the sources of information.
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Computer Science					
Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<ul style="list-style-type: none"> • Give instructions to a friend and follow their instructions to move around a space. • Describe what happens when buttons are pressed on a robot or device. • Press buttons in the correct order to make a robot follow a short sequence. • Understand what an algorithm is and be able to create a simple algorithm. • Understand and explain how algorithms are used in every day life. • Begin to predict what will happen for a short 	<ul style="list-style-type: none"> • Understand what an algorithm is and demonstrate simple linear algorithms. • Be able to explain the order needed to do things to make something happen and to talk about it as an algorithm. • Programme a robot or software to do a particular task. • Look at a basic program and explain what will happen. • Use programming software and applications to make objects move. • Use logical reasoning to predict and debug 	<ul style="list-style-type: none"> • Understand how an algorithm is implemented using a sequence of precise instructions. • Can predict the outcome of a sequence of precise instructions. • Repeatedly test a program and recognise when they need to debug it. • Detect a problem in an algorithm, which could result in a different outcome to the one intended. • Understand what inputs and outputs are, how they can be used. 	<ul style="list-style-type: none"> • Design simple algorithms using loops and repeats, whilst detecting and correcting errors is debugging. • Write and execute an efficient program, using loops such as forever, repeat & repeat until commands. • Decompose a problem into smaller parts with some verbal reasoning. • Has an understanding of how sequencing, using inputs and repetition in programs has specific effects on the output, works with 'loops' and 	<ul style="list-style-type: none"> • Know difference between Internet and the Worldwide Web • Know what a network is and be able to identify parts of a network within their school • To understand what an IP address is. 	<ul style="list-style-type: none"> • Understand the importance of planning, testing and correcting algorithms. • Demonstrate a range of different strategies to solve a problem including: abstraction, decomposition, logic & evaluation. • Understand why sequence & patterns are important when creating simple algorithms that are part of a more complex program. • Gives reasoning for each step within algorithms and applying them to a program.

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<p>sequence of instructions.</p> <ul style="list-style-type: none"> • Begin to use different software or applications to create movement and patterns on a screen. • Use the word debug to correct an algorithm that doesn't work in the way it was intended. 	<p>more complex programs.</p> <ul style="list-style-type: none"> • Can create and debug with improved confidence & efficiency. • Begin to program using simple block code. 	<ul style="list-style-type: none"> • Provide examples of how to use inputs and outputs effectively. • Designs, writes, executes and debugs programs of increasing complexity that accomplish a specific goal. • Use logical reasoning to predict and debug more complex programs including inputs and outputs. 	<p>understands their effect.</p> <ul style="list-style-type: none"> • Recognise that an algorithm will help to sequence more complex programs. • Use logical reasoning to predict and debug more complex programs including loops and repeats. 	<ul style="list-style-type: none"> • Understand & develop complex flow diagrams. • Use a variable to increase programming possibilities. • Use a variable and relational operators (e.g. < = >) within a loop to stop a program. • Evaluate the effectiveness and efficiency of an algorithm while continually testing the programming of that program. • Use different inputs (including sensors) to control a device or onscreen action and predict what will happen. • Use logical reasoning to predict and debug more complex programs including:
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					selection, variables and operators.
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Digital Literacy					
Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<ul style="list-style-type: none"> • Understand why we need passwords. • Understand that we must keep passwords private. • Explain what personal information is. • Understand that we must keep personal information private. • Communicate safely and respectfully online. • Know what to do when concerned about online content. • Know what to do if someone tries to contact you online. 	<ul style="list-style-type: none"> • Understand the need to keep a password private. • Understand the need to keep personal information private. • Demonstrate the use of technology responsibly in terms of how we use it and the time we spend using it. • Know how to report inappropriate content or contact online. 	<ul style="list-style-type: none"> • Children consider their responsibilities and actions to others online. • Children consider that all of the media they see could have been altered. • Understand how to use a search engine responsibly and safety 	<ul style="list-style-type: none"> • Understand that media can be edited online for advertising and other purposes. • Recognise what is acceptable and unacceptable behaviour when using technology and online services. • Children understand how effective a strong password is and what a strong password looks like. 	<ul style="list-style-type: none"> • Be aware of their digital footprint. • Understand the dangers of building online relationships. • Explain what the consequences might be to using technology inappropriately or accessing inappropriate content intentionally. 	<ul style="list-style-type: none"> • Be aware of fake news and how to dissect it. • Understand the difference between misinformation and disinformation. • Understand what Copywriting is and using someone else's work responsibly. • Manage their conduct and contact appropriately and safely when using technology and online services.

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ICT Beyond School					
Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<ul style="list-style-type: none"> • Recognise that a range of digital devices and products can be considered computers. • Recognise the ways in which technology is used in their homes and community. • Understand that computers have no intelligence and can do nothing without being programmed. • Begin to identify some of the benefits to using technology. 	<ul style="list-style-type: none"> • Children can explain why they use technology in the classroom, in their homes and in the community. • Identify the benefits of using technology, such as creating content and communicating efficiently. • Can identify a computer by knowing that it has inputs, a processor and outputs. • Can identify parts of a computer including what an input and output is. 	<ul style="list-style-type: none"> • Save and retrieve work online, on the school network and their own device. • Tell you ways to communicate with others online. • Knows how navigate the web responsibly. • Can carry out effective web searches to collect digital content. • Think about whether they can use images that they find online in their own work. 	<ul style="list-style-type: none"> • Understand the difference between the Internet and online services such as the World Wide Web, instant messaging and email. • Tell you whether a resource they are using is from the World Wide Web, the school network or their own work. • Identify key words to use when searching safely on the World Wide Web. • Show an awareness of a range of Internet services such as the World Wide Web, email and instant messaging. 	<ul style="list-style-type: none"> • Use different online tools for different purposes. • Use a search engine effectively to find appropriate information and check the reliability of a website. • Understand how search results are selected and ranked and the algorithms they use. • Recognise and evaluate different types of information they find on the World Wide Web. • Think about the reliability of information they read on the World Wide Web or other Internet services (Fake News) 	<ul style="list-style-type: none"> • Explain the Internet services they need to use for different purposes. • Describe the different parts of a webpage. • Understands how to construct a website using basic HTML tags. • Explain what copyright is and acknowledge the sources of information that they find online. • Understands how data is transmitted across a network. • Understand what IP is and how it's used. • Can explain how networks use the

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			<ul style="list-style-type: none">• Explain how to check who owns photos, text and clipart.		Internet to send and receive data.
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