



Curriculum statement for Computing			
Intent	<p>At St John’s Catholic Primary School, computing teaching develops a passion for technology and computing, as well as an enthusiastic engagement in learning across the year groups. Our pupils will learn how to use technology positively, responsibly and safely. They will learn how technology can allow them to share their learning in creative ways across the curriculum. Our pupils will learn the skills to utilise technology in a positive way to enhance their learning through computer science, information technology (IT) and digital literacy.</p> <p>Pupils are taught the principles of information and computation; how digital systems and networks work; and how to put this knowledge to use through coding and programming. Pupils are equipped to use information technology to create programs, systems and a range of content. Our pupils use information technology to express themselves and develop their ideas through ICT. Pupils are able to develop practical skills through the safe use of IT. They apply these skills to solve relevant problems, such as, understand the safe use of the internet, networks and emails and use relevant software fluently.</p> <p>We aim to give each child the skills, combined with the knowledge, to be a confident and responsible digital citizen.</p>		
Key learning outcomes	Digital Literacy	Computer Science	Information Technology (IT)
	<p>Pupils are able to develop practical skills through the safe use of IT. They apply these skills to solve relevant problems, such as understand the safe use of the internet, networks and emails and use relevant software fluently.</p>	<p>Pupils are taught the principles of information and computation; how digital systems and networks work; and how to put this knowledge to use through coding and programming.</p>	<p>Pupils are equipped to use information technology to create programs, systems and a range of content. Our pupils use information technology to express themselves and develop their ideas.</p>



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Implementation	<p>Statement as to how we deliver our teaching of the subject including provision for SEND, disadvantaged, most able. What would visitors see in our classroom, from our teaching etc? Mention of cultural capital</p> <p>We provide pupils with stimulating lessons and resources enabling them to develop and progress their computing skills. We spark their curiosity by providing pupils with the opportunity to explore a range of key areas within computing to discuss and widen their knowledge. When a pupil is presented with a key area they are less confident about, we encourage them to use prior knowledge and resources. We set the expectation for pupils to build on their initial knowledge by exploring computing vocabulary and resources that are available to them.</p> <p>Students will be taught fundamental concepts of computer science and computational thinking, including problem-solving, algorithms, and data analysis. We build on the pupils’ resilience by revisiting the key areas yearly, in order to build on their understanding within that area. Each lesson is sequenced so that it builds on the learning from the previous lesson, and where appropriate, activities are scaffolded so that all pupils can succeed and thrive. Lessons provide pupils with extra resources, such as visual prompts, to reach the same learning goals as the rest of the class. Exploratory tasks foster a deeper understanding of a concept, encouraging pupils to apply their learning in different contexts and make connections with other learning experiences.</p> <p>Teachers use Purple Mash to give the pupils the opportunity to develop their knowledge and discuss their learning, through whole class, group and paired discussions and aim to use key vocabulary throughout the different areas of the computing curriculum. Computing is embedded across our Curriculum, with Teachers being encouraged to use technology as much as possible in the classroom. This includes using computing in art to publishing learning in English lessons. Our progression map has a clear sequencing and development of skills, knowledge and understanding.</p>
	<p>EYFS Foundations in Computing curriculum</p>
	<p>To build the prerequisites of the computing curriculum the Early Learning Goals are used.</p> <p>The most relevant statements for computing are taken from the following areas of learning:</p> <ul style="list-style-type: none"> • Personal, Social and Emotional Development • Physical Development • Understanding the World • Expressive Arts and Design



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	<p>In Personal, Social and Emotional Development the focus is on Showing resilience and perseverance in the face of a challenge. Knowing and talking about the different factors that support their overall health and wellbeing. As well as exploring sensible amounts of 'screen time'. The will work on explaining the reasons for rules, knowing right from wrong and trying to behave accordingly.</p> <p>In Understanding the World the focus is on how things work.</p> <p>In Physical Development the focus is on developing their small motor skills so that they can use a range of tools competently, safely and confidently.</p> <p>In Expressive Arts and Design the focus is on exploring, using and refining a variety of artistic effects to express their ideas and feelings. Safely experimenting with colour, design, texture, form and function.</p> <p>These precursors will allow each child to have strong creative, physical and moral starting points to successfully access the computing curriculum during their school journey.</p>		
Curriculum Overview	Progression of Computing Skills and Vocabulary		
Vocabulary	KS1	LKS2	UKS2
	See: Key Vocabulary Purple Mash Computing Scheme of Work	See: Key Vocabulary Purple Mash Computing Scheme of Work	See: Key Vocabulary Purple Mash Computing Scheme of Work
Computer Science	KS1	LKS2	UKS2
	<p>National Curriculum: Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions.</p> <p>Create and debug simple programs Use logical reasoning to predict the behaviour of simple programs.</p>	<p>National Curriculum: Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.</p> <p>Use sequence, selection and repetition in programs, work with variables and various forms of input and output.</p>	<p>National Curriculum: Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.</p> <p>Use sequence, selection and repetition in programs, work with variables and various forms of input and output.</p>



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		<p>Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.</p> <p>Understand computer networks, including the internet, how they can provide multiple services, such as the World Wide Web, and the opportunities they offer for communication and collaboration.</p>	<p>Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.</p> <p>Understand computer networks, including the internet, how they can provide multiple services, such as the World Wide Web, and the opportunities they offer for communication and collaboration.</p>
Information Technology	KS1	LKS2	UKS2
	<p>National Curriculum: Use technology purposefully to create, organise, store, manipulate and retrieve digital content.</p>	<p>National Curriculum: Use search technologies effectively appreciate how results are selected and ranked, and be discerning in evaluating digital content.</p> <p>Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.</p>	<p>National Curriculum: Use search technologies effectively appreciate how results are selected and ranked, and be discerning in evaluating digital content.</p> <p>Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.</p>
Digital Literacy	KS1	LKS2	UKS2
	<p>National Curriculum: Recognise common uses of information technology beyond school.</p>	<p>National Curriculum: Use technology safely, respectfully and responsibly; recognise acceptable / unacceptable behaviour; identify a range</p>	<p>National Curriculum: Use technology safely, respectfully and responsibly; recognise acceptable / unacceptable behaviour; identify a range</p>



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	Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.	of ways to report concern about content and contact.	of ways to report concern about content and contact.
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	<u>Long term plan for Key Stages 1 & 2</u>		
	Autumn	Spring	Summer



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Year 1	Digital literacy Unit 1.1 Online Safety & Exploring Purple Mash – 4 lessons Unit 1.9 – Technology outside school – 2 lessons	Computer Science Unit 1.7 – Coding – 6 lessons (2Code)	Information Technology Unit 1.6 – Animated Story Books – 5 lessons
Year 2	Digital Literacy Unit 2.2 – Online Safety – 3 lessons Unit 2.5 – Effective Searching – 3 lessons	Computer Science Unit 2.1 – Coding – 6 lessons (2Code)	Information Technology Unit 2.6 – Creating Pictures – 5 lessons
Year 3	Digital Literacy Unit 3.2 – Online Safety – 3 lessons Information Technology Unit 3.4 – Touch Typing – 4 lessons	Computer Science Unit 3.1 – Coding – 6 lessons (2Code)	Information Technology Unit 3.3 – Spreadsheets – 4 lessons (crash course – 2Calculate) Unit 3.8 – Graphing – 3 lessons (2Graph)
Year 4	Digital Literacy Unit 4.2 – Online Safety – 4 lessons Information Technology Unit 3.4 – Animation – 3 lessons (2Animate)	Computer Science Unit 4.1 – Coding – 6 lessons (2Code)	Information Technology Unit 4.3 – Spreadsheets – 6 lessons (2Calculate)
Year 5	Digital Literacy Unit 5.2 – Online Safety – 3 lessons	Computer Science Unit 5.1 – Coding – 6 lessons (2Code)	Information Technology



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	<p>Information Technology</p> <p>Unit 5.4 – Databases – 4 lessons (2Investigate) Or Unit 5.7 – Concept Maps – 4 lessons (2Connect)</p>		<p>Unit 5.5 – Game Creator – 5 lessons (2DIY 3D)</p>
<p>Year 6</p>	<p>Digital Literacy</p> <p>Unit 6.2 – Online Safety – 2 lessons</p> <p>Computer Science</p> <p>Unit 6.8 – Understanding Binary – 4 lessons</p>	<p>Computer Science</p> <p>Unit 6.1 – Coding – 6 lessons (2Code)</p>	<p>Information Technology</p> <p>Unit 6.7 – Quizzing – 6 lessons (2Quiz)</p>

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Impact	<p>How do we know / measure what the children can and cannot do? What happens if they cannot?</p> <p>Our desired outcome for our children is that they develop a love of computing and become computer literate young people. We are preparing our children for a world of technology in which they understand the risks and benefits of ICT. We encourage children to make sensible and appropriate choices as they explore the world around them. Teachers are supported in teaching computing through sequenced schemes of work with video examples.</p> <p>Children are assessed against learning intentions as they progress through the units. This is combined with teacher assessment during lessons. This allows us to identify children who need support and adapt lessons or the route through the lessons. The computing curriculum is reviewed continually to ensure that any gaps that become apparent are covered.</p> <p>By providing students with a solid foundation in computing, they will be equipped with the skills and knowledge needed to succeed in the digital age. They will be able to use technology confidently, safely and responsibly, and apply computational thinking to solve problems in various contexts. This will enable them to engage in new forms of learning, communication, and expression. Additionally, an early introduction to computing can help to foster interest in technology, leading to increased participation in technology-related fields and the development of a technology-literate workforce.</p>		
	Computer Science	Digital Literacy	Information Technology (IT)
Key learning outcomes at the end of KS2	See computing scheme of work assessment tool Purple Mash	See computing scheme of work assessment tool Purple Mash	See computing scheme of work assessment tool Purple Mash