St Joseph's
Catholic Primary School
Work hard, love tenderly, walk humbly: trusting in God.

St Joseph's Catholic Primary School
Subject Yearly Overview - Computing

Year Group	Autumn	Spring	Summer			
	Across the year – All year groups - E-Safety Children will continue to explore how to stay safe online, manage information online and the importance of keeping passwords private. They will also understand who they can go to if they are upset by anything they see online and understand that not everything they see online is accurate or true.					
EYFS	*EYFS follows a distinct curriculum with a holistic approach to activities. This is tailored to the specific context of every EYFS setting. Activities are not subject specific, however, we have highlighted certain aspects to demonstrate how the experiences offered to our pupils, as part of our EYFS provision at St Joseph's, feed into their national curriculum journey as pupils move into Year 1.* Use a range of technology within the setting e.g. listening station, telephone in home corner etc. Talk about their own experiences of technology. Select and use technology for particular purposes e.g. iPad to take photos and videos.					
1	**Technology all around us** Recognise technology in school and use it responsibly.	**Digital painting** Choose appropriate tools in a program to create art. Make comparisons with working non-digitally.	**Moving a robot** Write short algorithms and programs for floor robots. Predict program outcomes.	**Grouping data** Explore object labels, then use them to sort and group objects by properties.	**Digital writing** Use a computer to create and format text. Then compare this to writing non-digitally.	**Programming animations** Design and programme the movement of a character on screen to tell stories.
2	**Information Technology all around us** Identify IT and how its responsible use improves our world in school and beyond.	**Digital photography** Capture and change digital photographs for different purposes.	**Robot algorithms** Create and debug programs. Use logical reasoning to make predictions.	**Pictograms** Collect data in tally charts and use attributes to organise and present data on a computer.	**Making music** Use a computer as a tool to explore rhythms and melodies. Then create a musical composition.	**Programming quizzes** Design and create algorithms which have an outcome. Use and modify these designs to create their own quiz questions in Scratch Junior.

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3	**Connecting computers** Identify that digital devices have inputs, processes, and outputs. Also understand how devices can be connected to create networks.	**Stop frame animation** Capture and edit digital still images to produce a stop-frame animation that tells a story.	**Sequencing sounds** Create sequences in a block-based programming language to make music.	**Branching databases** Build and use branching databases to group objects using yes/no questions.	**Desktop publishing** Create documents by modifying text, images, and page layouts for a specified purpose.	**Events and actions in programs** Understand links between events and actions. Design and code their own maze tracing program.
4	**Computing systems and networks – The Internet** Recognise the internet as a network connecting to other networks. Understand that the WWW is part of the internet. Explain why we should evaluate online content.	**Audio production** Capture and edit audio to produce a podcast, ensuring that copyright is considered.	**Repetition in shapes** Create programs by planning, modifying and testing commands to create shapes and patterns.	**Data logging** Recognise how and why data is collected over time, before using data loggers (or equivalent) to carry out an investigation.	**Photo editing** Manipulate digital images, and reflect on the impact of these changes. Consider the impact that editing images can have.	**Repetition in games** Use Scratch to explore the difference between count-controlled and infinite loops. Create a game using repetition.
5	**Computing systems and networks – Sharing Information** Recognise IT systems around us and how they allow us to search the internet.	**Video production** Plan, capture and edit a video to produce a short film.	**Selection in physical computing -** Explore conditions and selection using a programmable microcontroller.	**Flat file databases** Use a database to order data and create charts to answer questions.	**Vector drawing** Create images in a drawing program by using layers and groups of objects.	**Selection in quizzes** Explore selection in programming to design and code an interactive quiz.

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6	**<u>Computing systems and networks – communication</u>** Identify and explore how data is transferred and information is shared online.	**<u>Webpage creation</u>** Design and create webpages, giving consideration to copyright, aesthetics, and navigation.	**<u>Variables in games</u>** Explore variables when designing and coding a game.	**<u>Introduction to spreadsheets</u>** Answer questions by using spreadsheets to organise and calculate data.	**<u>3D modelling</u>** Plan, develop, and evaluate 3D computer models of physical objects.	**<u>Sensing</u>** Design and code a project that captures inputs from a physical device.