Subject Curriculum Map and Rationale
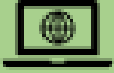
Computing

Computing in the Early Years Foundation Stage

EYFS	Development Matters 3&4 Years will learn to:	Development Matters Children in Reception will learn to:	Statutory Framework Early Learning Goals
Personal, Social and Emotional Development	Remember rules without needing an adult to remind them.	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'.	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.
Physical Development	Match their developing physical skills to tasks and activities in the setting.	Develop their small motor skills so that they can use a range of tools competently, safely and confidently.	
Expressive Arts and Design		Explore, use and refine a variety of artistic effects to express their ideas and feelings.	Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.
Understanding the world	Explore how things work.		
Topics	Autumn Who is a good friend? Once upon a time	Spring What happens when we are asleep? Ready, Steady, Grow	Summer Are we there yet? Fun in the sun!

Computing Curriculum Map KS1

Year	Autumn		Spring		Summer	
Year 1	Logging on, E-safety & Basic Mouse and Keyboard skills 💻	Grouping & Sorting and Using Pictograms	Basic Programming. An introduction to simple algorithms.	An introduction to email. 💻	Creating animated storybooks using simple animation software	Learning to use simple spreadsheets
Year 2	Coding: Learning how to program a simple game	Online safety and using Spreadsheets 💻	Creating and using simple databases	Digital artwork using a variety of tools. / Carrying out safe searches on the internet 💻	Making music. Using musical software to produce a range of pieces of music	Presenting ideas and information to the class using simple presentation software

Legend:
- 🟦 Coding
- 🟩 Digital Literacy
- 🟨 Computer Technology
- 🟧 Handling Data
- 💻 E-Safety Included

Computing Curriculum Map KS2

Year	Autumn		Spring		Summer	
Year 3	Using Microsoft PowerPoint to create animated presentations. Introduction to Touch Typing	Programming a game using repeat commands and IF statements. Examining Online Safety 🖥️	Using Spreadsheets to present data such as bar graphs and pie charts.	Using Email to work collaboratively, including the use of attachments 🖥️	Creating and using branching databases	Exploring and creating simulations
Year 4	Programming a racing game using coordinates, variables and IF/Else statements	Working with Spreadsheets to plan an event. Online Safety 🖥️	Word Processing: Creating and formatting documents to include images and headings	Understanding and Using directional instructions in LOGO.	How to refine and use online searches more effectively, including assessing the reliability of information. 🖥️ / Identifying and understanding common types of computer hardware	Creating an animation and producing some music to accompany it
Year 5	Stop Motion Animation: Creating a video using real models and animating them using Stop Motion software	3D Modelling and design. Using 3D software to create a building design	Coding: Learning to use more advanced coding including decomposition, abstraction and concatenation	Online Safety: Look at online safety in relation to Social Media and Gaming 🖥️ / Concept Mapping: Using software to map out ideas and create plans	Databases: Creating and populating a database, including the main principles of designing a database	Programming a game that handles a variety of user input including text, menu choices and button mapping
Year 6	3D Design Using 3D design software to create objects for 3D printing	KODU Using Kodu to create games that work in 3D and use alternate methods of control	Online Safety: A refresher of the important principles of Online Safety 🖥️ / Understanding different types of Computer Network and how they function	Understanding Binary: An overview of how the binary system works and how computers communicate with each other	Green Screen: Creating and editing a video that uses Chroma-Keying or 'Green Screen' effects	Minecraft Education: Exploring programming and working collaboratively through Minecraft Education 🖥️

Legend:
- 🟦 Coding
- 🟩 Digital Literacy
- 🟨 Computer Technology
- 🟧 Handling Data
- 🖥️ E-Safety Included

Computing Rationale

The computing skills taught at St WIlfrid's Catholic Primary School equips pupils to use computational thinking and creativity to understand the principles of information and computation, how digital systems work and programming. Lessons are well planned and sequenced through a spiral curriculum that builds upon what has gone before and prepares pupils for what comes next. The units from year to year have been sequenced to include the consolidation and extension of skills and knowledge. Key learning outcomes are identified for each unit to explain what pupils need to know about the current topic to ensure that they are prepared to understand and succeed in the next topic.

Learning outcomes for each lesson are clearly identified. These show what pupils need to know, or should be able to demonstrate, as a skill by the end of each lesson, or sequence of lessons, in order to understand and succeed in subsequent lessons and to progress on to the next phase of learning when the topic is revisited at a later stage. They will also help the teacher check pupils' understanding through formative assessment to inform teaching and make necessary adjustments to planning if objectives have not been met or to identify and correct misunderstanding. These outcomes will also support pupils to embed knowledge and support teachers in feedback to move learning forward and produce clear next steps for pupils.

From year to year, key skills are revisited and built upon to ensure consolidation and progression. Reference is also made to the world of work and highlights the types of jobs/roles that use the skills being taught to give the learning a real-world context and purpose.

Expected end points for the end of KS1, end of LKS2 and end of UKS2 have been identified to determine the key milestones in terms of skill progression upon which summative assessment focus.