St. John's C of E
Whole School Computing Progression 24/25
Scheme: Teach Computing

Purpose: A high-quality computing education equips pupils to use computational thinking and creativity to understand and change the world.

Computing has deep links with mathematics, science, and design and technology, and provides insights into both natural and artificial systems. The core of computing is computer science, in which pupils are taught the principles of information and computation, how digital systems work, and how to put this knowledge to use through programming. Building on this knowledge and understanding, pupils are equipped to use information technology to create programs, systems and a range of content. Computing also ensures that pupils become digitally literate – able to use, and express themselves and develop their ideas through information and communication technology – at a level suitable for the future workplace and as active participants in a digital world.

Term/ strand	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
1 Computing Systems and Networks	**Technology around us** Recognising technology in school and using it responsibly.	**Information technology around us** Identifying IT and how its responsible use improves our world in school and beyond.	**Connecting computers** Identifying that digital devices have inputs, processes, and outputs, and how devices can be connected to make networks .	**The internet** Recognising that the internet is a network of networks including the WWW, and why we should evaluate online content.	**Systems and searching** Recognising IT systems in the world and how some can enable searching on the internet.	**Communication and collaboration** Exploring how data is transferred by working collaboratively online.
2 Creating Media	**Digital painting** Choosing appropriate tools in a program to create art, and making comparisons with working non-digitally.	**Digital photography** Capturing and changing digital photographs for different purposes.	**Stop-frame animation** Capturing and editing digital still images to produce a stop frame animation that tells a story	**Audio production** Capturing and editing audio to produce a podcast, ensuring that copyright is considered.	**Video production** Planning, capturing, and editing video to produce a short film.	**Webpage creation** Designing and creating web pages, giving consideration to copyright, aesthetics and navigation.
3 Programming A	**Moving a robot** Writing short algorithms and programs for floor robots, and predicting program outcomes.	**Robot algorithms** Creating and debugging programs, and using logical reasoning to make predictions.	**Sequencing sounds** Creating sequences in a block-based programming language to make music.	**Repetition in shapes** Using a text-based programming language to explore count-controlled loops when drawing shapes.	**Selection in physical computing** Exploring conditions and selection using a programmable microcontroller.	**Variables in games** Exploring variables when designing and coding a game.
4 Data and Information	**Grouping data** Exploring object labels, then using them to sort and group objects by properties.	**Pictograms** Collecting data in tally charts and using attributes to organise and present data on a computer.	**Branching databases** Building and using branching databases to group objects using yes/no questions	**Data logging** Recognising how and why data is collected over time, before using data loggers to carry out an investigation,	**Flat-file databases** Using a database to order data and create charts to answer questions.	**Introduction to spreadsheets** Answering questions by using spreadsheets to organise and calculate data.
5	**Digital writing** Using a computer to	**Digital music** Using a computer as a	**Desktop publishing** Creating documents and	**Photo editing** Manipulating digital images,	**Introduction to vector graphics**	**3D modelling** Planning, developing, and

Creating Media	create and format text, before comparing to writing non-digitally.	tool to explore rhythms and melodies, before creating a musical composition.	modifying text, images and page layouts for a specific purpose.	and reflecting on the impact of the changes and whether the required purpose is fulfilled,	Creating images in a drawing program by using layers and groups of objects	evaluating 3D computer models of physical objects.
6 **Programming B**	**Programming animations** Designing and programming the movement of a character on screen to tell stories.	**Programming quizzes** Designing algorithms and programs that use events to trigger sequences of code to make an interactive quiz.	**Events and actions in programs** Writing algorithms and programs that use a range of events to trigger sequences of actions.	**Repetition in games** Using a block-based programming language to explore count-controlled and infinite loops when creating a game.	**Selection in quizzes** Exploring selection in programming to design and code an interactive quiz.	**Sensing movement** Designing and coding a project that captures inputs from physical devices.