

Progression of Computing

Bredbury Green Primary School



	Computing Systems and Networks	Creating Media	Programming	Data and Information
Year 1	Technology Around Us Know five different types of technology Know the different components of a computer and laptop Explain how these components work and how to use them sensibly	Digital Painting and Writing Know how to paint and write digitally Know how to make simple changes to painted and written products Explain how and why they prefer digital or physical writing and painting	Moving a Robot Know how to program commands, including directions on a device Know what it means to debug a program Explain different possible sequences and solutions to problems when programming	Grouping Data Know what it means to group and organise information Know that some groups can be different, and how they can be compared Explain choices in grouping and answer questions about their data
Year 2	Information Technology Around Us Know what is meant by Information Technology Know how IT is used in school and the wider world Explain how to use IT safely	Digital Music Know that music can affect the way people think and feel, and that it can be produced digitally Know how to create music digitally and produce a composition Explain some of the choices made in the composition, as well as any edits made	Robot Algorithms Know how to provide and receive clear instructions Know how to create an algorithm for a desired outcome Explain how algorithms have been created, tested and debugged in order to achieve outcomes	Pictograms Know how to record data through tally charts and pictograms Know how to collect and present data based on a suitable attribute Explain when information should and should not be shared
End Points	Computer Systems and Digital Literacy - Identify and use technology by recognising a range of digital devices, naming their main parts, and using them safely and responsibly. - Understand the role of information technology by explaining how IT is used in school and everyday life and demonstrating safe behaviours when using technology. - Communicate informed choices by explaining when information should or should not be shared and making sensible decisions about technology use. Creating and Managing Digital Content - Create digital media by producing digital artwork, writing and music using appropriate software and tools. - Edit and improve digital work by making simple changes to digital creations and explaining the choices made during the creative process. - Organise and present information by collecting, grouping and displaying data using simple methods such as tally charts and pictograms, and answering questions about the information. Computational Thinking and Programming - Develop and use algorithms by creating clear instructions and simple sequences to achieve a desired outcome. - Program and debug by using commands to control devices or robots, identifying errors, and improving programs through debugging. - Reason about solutions by explaining how different sequences or algorithms can solve a problem and evaluating which solutions are effective.			
Year 3	Connecting Computers Know and understand the vocabulary of input, process and output Know the parts of a digital device and describe a simple process Explain how the school network is connected and how it benefits the school	Desktop Publishing Know and understand what it means to publish a document Know how to design, create and evaluate a published document Explain the benefits of desktop publishing in the wider world	Sequencing Sounds Know that Scratch is programming software and that commands in Scratch are represented as blocks Know that programming specific code affects the execution of a sequence of commands Explain how their own algorithm code allowed them to create a project from a task description	Branching Databases Know what a branching database is and how to structure one Know how to create a functional branching database Explain why questions need to be in a specific order for a branching database to function properly
Year 4	The Internet Know that the internet is networked and that the World Wide Web consists of webpages and websites Know the different types of media that can be shared and stored on the WWW Explain how the credibility of sources on the internet should be checked to make sure they are real (including AI)	Audio Production Know how sound is recorded and the copyright implications of publication Know how to plan, create and edit a podcast Explain the benefits of podcasting and evaluate their own recording	Repetition in Games Know the difference between count controlled and infinite loops when programming in Scratch, and how to modify existing animations and games using repetition Know how to design and create a game using repetition Explain how to build a program and use evaluation techniques at each stage of design	Data Logging using Excel Know how and why data is collected over time Know that Microsoft Excel is a program that stores and presents data Explain why it is important to interpret data and draw conclusions

End Points	Computer Systems and Digital Literacy - Understand computer systems and networks by explaining how digital devices process information, how computer networks connect people and devices, and how the internet and World Wide Web enable communication and access to information. - Use digital technologies safely and responsibly by evaluating the credibility of online information, including AI-generated content, and understanding how to use online resources appropriately and responsibly. - Develop an understanding of digital communication by recognising how different types of media are created, stored and shared across networks, and explaining the benefits of connected technologies in school and the wider world. Creating and Managing Digital Content - Create purposeful digital content by designing and producing published documents, audio recordings and podcasts using appropriate digital tools. - Edit, refine and evaluate digital work by improving digital creations, considering audience and purpose, and explaining the choices made throughout the creative process. - Collect, organise and interpret data by using branching databases and spreadsheets to record, store, analyse and draw conclusions from data. Computational Thinking and Programming - Design and develop algorithms by planning solutions, sequencing instructions and creating programs that achieve specific outcomes using block-based programming. - Apply programming concepts by using selection, repetition and variables where appropriate to create interactive projects, animations and games. - Test, evaluate and improve programs by debugging, refining and explaining how computational thinking has been used to solve problems and produce effective digital solutions.			
Year 5	Systems and Searching Know the purpose of a search engine, small-scale systems and large-scale systems Know how to find specific information using search engines, and how to refine searches to optimise outputs Explain how searches are influenced and how to stay safe when searching online	Video Production Know what a video is and how different filming angles can be used for different purposes and effects Know how to plan, film and edit a video Explain how and why some editing choices were made to achieve a specific outcome or effect	Selection in Quizzes Know how selection is used in programs to control what happens based on different conditions. Know how to design, create, test and debug programs to achieve a specific purpose. Explain how programs can be improved through testing, evaluation and refinement.	Flat-File Databases Know how information is organised and stored in a database using records, fields and categories. Know how to sort, group, search and present data to answer questions and identify patterns. Explain how databases and charts can be used to organise, compare and communicate information in real-life contexts.
Year 6	Communication and Collaboration Know how information is transferred across the internet using networks, addresses and agreed methods of communication. Know how the internet enables people to communicate, share information and collaborate safely using a range of digital tools. Explain how to communicate responsibly online by choosing appropriate methods, protecting personal information and recognising how to report concerns	Webpage Creation Know how websites are planned, designed and created using appropriate layouts, media and navigation features. Know how to create and improve webpages by using digital tools, hyperlinks and copyright-respecting content. Explain how effective website design supports the user experience and why digital content should be used responsibly and ethically	Variables in Games Know how variables are used in Scratch to store and change information within a program. Know how to design, create, test and improve interactive projects in Scratch using algorithms, variables and appropriate programming techniques. Explain how variables in Scratch make programs more effective and justify improvements made through testing, evaluation and feedback	Introduction to Spreadsheets Know how to organise, format and manage data effectively within a spreadsheet using appropriate cells, references and data types. Know how to use formulas and functions in a spreadsheet to perform calculations, model information and answer questions. Explain how spreadsheets can be used to analyse, present and interpret data, selecting appropriate tables, charts and calculations for different purposes.
End Points	Computer Systems and Digital Literacy - Know how computer systems, networks and online services work together to enable information to be accessed, shared and communicated. - Know how to use digital systems effectively by refining searches, selecting appropriate tools and making informed decisions about online information. - Explain how digital technologies influence the information we access and how to stay safe, responsible and critical when using online systems. Creating and Managing Digital Content - Know how to design, create and refine digital content for a specific audience and purpose using appropriate tools and features. - Know how to collect, organise, analyse and present information using digital tools such as databases, spreadsheets and multimedia applications. - Explain how digital content can be evaluated, improved and shared responsibly by considering audience, accessibility, copyright and ethical use. Computational Thinking and Programming - Know how programming concepts such as selection, variables and algorithms can be combined to create more complex programs. - Know how to design, develop, test and refine programs that solve problems and achieve specific outcomes. - Explain how computational thinking can be used to improve programs through logical reasoning, debugging, evaluation and feedback.			