

Brampton Village Primary School

COMPUTING Curriculum Map



<i>Curriculum Intent</i>	Our aim is to deliver an ambitious primary Computing curriculum that uses computational thinking and creativity to expand our children's horizons. By exploring computer science, information technology, and digital literacy, our pupils learn to create rather than just consume. We raise aspirations from the very start, empowering every child to become a resilient problem-solver and a safe, responsible digital citizen ready for the future.
<i>Curriculum Implementation</i>	Computing is taught discretely but also with strong links across the curriculum and within our careers education. The core of computing is computer science; understanding how information technology and digital systems work, and how to put this knowledge to use through programming. We use programmable toys and age-appropriate programming software to understand how we can create, affect and change elements of the world around us. Children need to be digitally literate (be able to use and express themselves and develop ideas through IT) for the future workplace; we learn how to present and share our ideas in a variety of ways, including communication and blogging, use of multimedia, and giving successful presentations via both laptop, desktop and touchscreen tablet. A vital aspect of our curriculum is to demonstrate responsible online safety and digital citizenship to enable them to be safe and active participants in a digital world.
<i>Curriculum Impact</i>	The impact of the Computing curriculum is measured in several ways. Computing delivery is monitored through Lesson Observations, Data Analysis, Work Scrutiny, Pupil Voice and Learning Environment reviews. Feedback and training are given to class teachers to ensure that teaching practice is supported and improved. These measures help to monitor the curriculum and raise the aspirations of the children, ensuring our pupils are ready for a digital world.

Curriculum summary

Main Scheme of Work

Our main computing scheme of work is based upon the **Teach Computing Scheme:** [Curriculum teaching resources \(teachcomputing.org\)](https://teachcomputing.org/)

The **National Centre for Computing Education (NCCE)** is funded by the Department for Education and supporting partners, and marks a significant investment in improving the provision of computing education in England. The NCCE is run by a consortium made up of [STEM Learning](#), the [Raspberry Pi Foundation](#) and [BCS, The Chartered Institute for IT](#).

The scheme covers all the required units of the National Curriculum: *Computational Thinking, E-Safety, Programming, Digital Literacy and Understanding Technology*.

Curriculum Map

Brampton Village Primary School – Curriculum Coverage – TEACH COMPUTING Scheme

This scheme of work progression map is for the *Teach Computing* Scheme of work.

Key Stage 1

	Computing systems and networks	Creating media	Programming A	Data and information	Creating media	Programming B
Year 1	Technology around us Recognising technology in school and using it responsibly.	Digital painting Choosing appropriate tools in a program to create art, and making comparisons with working non-digitally.	Moving a robot Writing short algorithms and programs for floor robots, and predicting program outcomes.	Grouping data Exploring object labels, then using them to sort and group objects by properties.	Digital writing Using a computer to create and format text, before comparing to writing non-digitally.	Programming animations Designing and programming the movement of a character on screen to tell stories.
Year 2	Information technology around us Identifying IT and how its responsible use improves our world in school and beyond.	Digital photography Capturing and changing digital photographs for different purposes.	Robot algorithms Creating and debugging programs, and using logical reasoning to make predictions.	Pictograms Collecting data in tally charts and using attributes to organise and present data on a computer.	Digital music Using a computer as a tool to explore rhythms and melodies, before creating a musical composition.	Programming quizzes Designing algorithms and programs that use events to trigger sequences of code to make an interactive quiz.

Key Stage Two

	Computing systems and networks	Creating media	Programming A	Data and information	Creating media	Programming B
Year 3	Connecting computers Identifying that digital devices have inputs, processes, and outputs, and how devices can be connected to make networks	Stop-frame animation Capturing and editing digital still images to produce a stop frame animation that tells a story	Sequencing sounds Creating sequences in a block-based programming language to make music.	Branching databases Building and using branching databases to group objects using yes/no questions.	Desktop publishing Creating documents and modifying text, images and page layouts for a specific purpose.	Events and actions in programs Writing algorithms and programs that use a range of events to trigger sequences of actions.
Year 4	The internet Recognising that the internet is a network of networks including the WWW, and why we should evaluate online content.	Audio production Capturing and editing audio to produce a podcast, ensuring that copyright is considered.	Repetition in shapes Using a text-based programming language to explore count-controlled loops when drawing shapes.	Data logging Recognising how and why data is collected over time, before using data loggers to carry out an investigation,	Photo editing Manipulating digital images, and reflecting on the impact of the changes and whether the required purpose is fulfilled,	Repetition in games Using a block-based programming language to explore count-controlled and infinite loops when creating a game.

	Computing systems and networks	Creating media	Programming A	Data and information	Creating media	Programming B
Year 5	Systems and searching Recognising IT systems in the world and how some can enable searching on the internet.	Video production Planning, capturing, and editing video to produce a short film.	Selection in physical computing Exploring conditions and selection using a programmable microcontroller.	Flat-file databases Using a database to order data and create charts to answer questions.	Introduction to vector graphics Creating images in a drawing program by using layers and groups of objects.	Selection in quizzes Exploring selection in programming to design and code an interactive quiz.
Year 6	Communication and collaboration Exploring how data is transferred by working collaboratively online.	Webpage creation Designing and creating webpages, giving consideration to copyright, aesthetics and navigation.	Variables in games Exploring variables when designing and coding a game.	Introduction to spreadsheets Answering questions by using spreadsheets to organise and calculate data.	3D modelling Planning, developing, and evaluation 3D computer models of physical objects.	Sensing movement Designing and coding a project that captures inputs from physical devices.

Online safety

Giving pupils the tools to help them navigate the online world safely and with confidence is a priority at BVPS. Teachers integrate this into every term: every unit of Computing contains a lesson focused on Online Safety or Digital Citizenship. The school also participates in Safer Internet Day and holds assemblies focused on internet safety.