

The aims of the National Curriculum in respect of Computing are as follows:

The national curriculum for computing aims to ensure that all pupils:

- can understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation
- can analyse problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems
- can evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems
- are responsible, competent, confident and creative users of information and communication technology.

Our vision at Brockenhurst C of E Primary School:

We believe that technology can provide: enhanced collaborative learning opportunities; better engagement of pupils; easier access to rich content; support conceptual understanding of new concepts and can support the needs of all our pupils.

The children will learn to stay safe on the internet and how to use it safely for themselves and others.

Progression of Skills

	Computing Systems and Networks	Creating Media A	Programming A	Data and Information	Creating Media B	Programming B
Year 1	<p>Technology around us</p> <p>Recognising technology in</p>	<p>Digital painting</p> <p>Choosing appropriate tools in a program to create art, and making</p>	<p>Moving a robot</p> <p>Writing short algorithms and programs for floor robots, and</p>	<p>Grouping data</p> <p>Exploring object labels, then using them to sort and</p>	<p>Digital writing</p> <p>Using a computer to create and format text, before comparing to</p>	<p>Programming animations</p> <p>Designing and programming the movement of a</p>

	school and using it responsibly.	comparisons with working non-digitally.	predicting program outcomes.	group objects by properties.	writing non-digitally.	character on screen to tell stories.
Year 2	<p>Information technology around us</p> <p>Identifying IT and how its responsible use improves our world in school and beyond.</p>	<p>Digital photography</p> <p>Capturing and changing digital photographs for different purposes</p>	<p>Robot algorithms</p> <p>Creating and debugging programs, and using logical reasoning to make predictions.</p>	<p>Pictograms</p> <p>Collecting data in tally charts and using attributes to organise and present data on a computer.</p>	<p>Digital music</p> <p>Using a computer as a tool to explore rhythms and melodies, before creating a musical composition.</p>	<p>Programming quizzes</p> <p>Designing algorithms and programs that use events to trigger sequences of code to make an interactive quiz.</p>
Year 3	<p>Connecting computers</p> <p>Identifying that digital devices have inputs, processes, and outputs, and how devices can be connected to make networks</p>	<p>Stop-frame animation</p> <p>Capturing and editing digital still images to produce a stop frame animation that tells a story</p>	<p>Sequencing sounds</p> <p>Creating sequences in a block-based programming language to make music.</p>	<p>Branching databases</p> <p>Building and using branching databases to group objects using yes/no questions.</p>	<p>Desktop publishing</p> <p>Creating documents and modifying text, images and page layouts for a specific purpose.</p>	<p>Events and actions in programs</p> <p>Writing algorithms and programs that use a range of events to trigger sequences of actions.</p>
Year 4	<p>The internet</p> <p>Recognising that the internet is a network of networks including the WWW, and why</p>	<p>Audio production</p> <p>Capturing and editing audio to produce a podcast, ensuring that copyright is considered.</p>	<p>Repetition in shapes</p> <p>Using a text-based programming language to explore count-controlled</p>	<p>Data logging</p> <p>Recognising how and why data is collected over time, before using data loggers to carry out an investigation,</p>	<p>Photo editing</p> <p>Manipulating digital images, and reflecting on the impact of the changes and whether the</p>	<p>Repetition in games</p> <p>Using a block-based programming language to explore count-controlled and infinite loops</p>

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