



THE BATT C.E. SCHOOL

The Batt CE Primary School & St Mary's CE Infant School

Computing Curriculum



Computing Knowledge Coverage

Year	Autumn		Spring		Summer	
R	Children have the opportunity to explore a range of mechanical and technological equipment e.g. wind-up toys, pulleys, sets of cogs with pegs and boards, audio-visual and recording equipment, cameras, programmable toys, computers, ipads.					
1	Technology around us.	Digital Painting	Moving a Robot	Grouping Data	Digital Writing	Programming and Animations
Project Evolve 5 Min Input*	Self-Image and Identity 2	Online Relationships 2	Online Relationships 3	Online Reputation 3	Online Bullying	Managing Online Information 3
2	Information Technology around us	Digital Photography	Robot Algorithms	Pictograms	Making Music	Programming Quizzes
Project Evolve 5 Min Input*	Self-Image and Identity 2	Online Relationships 3	Online Relationships 4	Online Bullying 1+3	Managing Online Information 4	Privacy and security 1+2
3	Connecting Computers	Stop Frame Animation	Sequencing Sounds	Branching Databases	Desktop Publishing	Events and Action in Programmes
Project Evolve 5 Min Input*	Self-Image and Identity 3	Online Relationships 3	Online Bullying 2	Managing Online Information 4	Health, Wellbeing and lifestyle 2	Privacy and security 3

4	The Internet	Audio Editing	Repetition in Shapes	Data Logging	Photo Editing	Repetition in Games
Project Evolve 5 Min Input*	Self-Image and Identity 2	Self-Image and Identity 3	Online Relationships 1	Online Relationships 2	Online Bullying 2	Health, Wellbeing and Lifestyle 2
5	Sharing Information	Video Editing	Selection in Physical Computing	Flat-File Database	Vector Drawing	Selection in Quizzes
Project Evolve 5 Min Input*	Online Relationships 4	Online Relationships 6	Privacy and security 1	Privacy and security 2	Copy right and ownership 1	Copy right and ownership 2
6	Internet communication	Webpage Creation	Variables in Games	Introduction of Spreadsheets	3D Modelling	Sensing
Project Evolve 5 Min Input*	Online Relationships 1	Self-Image and Identity 1	Online Relationships 3	Online Relationships 4`	Health, Wellbeing and Lifestyle 4	Privacy and security 5

KS2 have the flexibility to use BBC Dance Mat Typing to develop accurate writing whilst increasing their speed.

*Online Safety is taught at the beginning of each term using Project Evolve,

Computing Skills Progression

Aspect	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
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<p>Computing networks and systems</p>	<p>Knows how to operate simple equipment, e.g. turns on CD player, uses a remote control, can navigate touch-capable technology with support</p> <p>Develops digital literacy skills by being able to access, understand and interact with a range of technologies</p> <p>Uses ICT hardware to interact with age appropriate computer software</p>	<p><u>Technology around us.</u></p> <p>To identify technology</p> <p>To recognise the uses and features of information technology</p> <p>To identify information technology</p> <p>To explain how information technology benefits us</p> <p>To show how to use technology safely</p> <p>To create rules for using technology responsibly</p> <p>To recognise the way digital devices change the way we work</p>	<p><u>IT Around us</u></p> <p>To identify technology</p> <p>To recognise the uses and features of information technology</p> <p>To identify information technology</p> <p>To recognise choices are made when using technology</p> <p>To explain how information technology benefits us</p> <p>To show how to use technology safely</p> <p>To create rules for using technology responsibly</p> <p>To recognise digital devices can change the way we work</p>	<p><u>Connecting Computers</u></p> <p>Know how digital devices function</p> <p>Explain how a computer network can be used to share information</p>	<p><u>The Internet</u></p> <p>To know how networks connect to other networks</p> <p>To know how information can be shared via the www</p> <p>To know how to be safe using the internet</p> <p>To understand the benefits of the www</p> <p>To understand the limitations of the www</p>	<p><u>Sharing Information</u></p> <p>To know that computers can be connected with other devices and share information</p> <p>To recognise that information can be shared across the internet using agreed protocols</p> <p>To understand that connections between computers mean we can share stored files</p> <p>To understand that computers allow working together in different places</p> <p>To recognise that computer collaborations can be public or private</p>	<p>To know how to use and compare search engines</p> <p>To understand the importance on outcome of the search terms</p> <p>To evaluate the results from searches and realise that advertising can influence</p> <p>To be able to choose the right internet communication for the purpose</p> <p>To evaluate different types of online communication</p>
<p>Programming A</p>	<p>Shows an interest in technological toys with knobs or pulleys, real objects such as cameras, and touchscreen devices such as mobile phones and tablets</p>	<p><u>Moving a Robot</u></p> <p>To choose a series of words that can be enacted as a programme</p> <p>To choose a series of commands that can run as a programme</p> <p>To run a programme</p>	<p><u>Algorithms</u></p> <p>To know that a series of instructions is a sequence</p> <p>To recall that a series of instructions can be issued before they are enacted</p>	<p><u>Sequence in Music/Sounds</u></p> <p>To be able to retrieve information from different levels of a branching database</p> <p>To know how to answer yes or no</p>	<p><u>Repetition in Shapes</u></p> <p>To understand that we can use a loop command in a programme to repeat instructions</p> <p>To know that in programming indefinite loops and</p>	<p><u>Selection in Physical Computing</u></p> <p>Know how to use a condition in, on if then statement to produce a given outcome</p> <p>To show that a condition can switch</p>	<p><u>Communication</u></p> <p>To understand and identify the variable in an existing programme</p> <p>Know how to experiment with the existing variables</p> <p>To know how to put</p>

	Shows skill in making toys work by pressing parts or lifting flaps to achieve effects such as sound, movements or new images	on a device	Use logical reasoning to predict the outcome of a programme	questions	count controlled loops To now that you can programme a loop to stop after a specific number of times	program flow in one of two ways To understand to effect of loops and sequences	a variable in a game To know how to update a variable as a user input To use an event in a programme to update a variable Know how to use a variable in a conditional statement to control the flow of a programme
Programming B	Plays with a range of materials to learn cause and effect, for example, makes a string puppet using dowels and string to suspend the puppet Completes a simple program on electronic devices	<u>Introduction to animation</u> To choose a series of words that can be enacted as a programme To choose a series of commands that can run as a programme To run a programme on a device	<u>Introduction to Quizzes</u> To know that a series of instructions is a sequence To recall that as series of instructions can be issued before they are enacted Use logical reasoning to predict the outcome of a programme	<u>Events and actions in programs</u> To build a sequence of commands. To combine commands in a programme. To order commands in a programme. To create a sequence of commands to produce a given outcome.	<u>Repetition in Games</u> To understand that we can use a loop command in a programme to repeat instructions To know that in programming indefinite loops and count controlled loops To now that you can programme a loop to stop after a specific number of times	<u>Selection in Quizzes</u> Know how to use a condition in, on if then statement to produce a given outcome To show that a condition can switch program flow in one of two ways To understand to effect of loops and sequences	<u>Variables in Games</u> To understand and identify the variable in an existing programme Know how to experiment with the existing variables To know how to decide where to put a variable in a game To know how to update a variable as a user input To use an event in a programme to update a variable Know how to use a variable in a conditional statement to control the flow of a programme
Creating Media	Can create content such as a video recording,	<u>Digital Writing</u> To use a computer to write	<u>Digital Photography</u> To capture a digital	<u>Animations</u> To know that an animation is a	<u>Audio Media</u> To recognise sound can be digitally	<u>Vector Media</u> To recognise that tools can be	<u>3D Modelling</u> To create 3d graphical objects on

	stories, and/or draw a picture on screen	To enter text into a computer To change the appearance of text in a computer To recognise and explain that information on a computer can be stored, retrieved and shared	image To improve the quality of photos taken To apply processing to improve images To recognise and explain that information on a computer can be stored, retrieved and shared	sequence of images To know the relationship between frames and motion Know how to decompose a story into characters, stages events To know the effect of adding other media	recorded To know some digital devices have microphones To know that recorded audios are stored as a file To know that audio can be edited and altered To know that sound can be layered To know the results that editing choices make	changed to produce different outcomes To recognise that an image comprises of separate objects To understand that images are layered To combine options to achieve a desired effect To recognise that vector images can be scaled without impact on quality	a computer screen in a 3d space To reposition, rotate, resize and recolour an object in 3d To understand blank objects must be used as place holders to create holes To understand role scale has in design
Creating Media		<u>Digital Painting</u> To use a computer to paint a picture To digitally make marks on a computer screen To use basic tools to create an image To use wider tools to create an image To recognise and explain that information on a computer can be stored, retrieved and shared		<u>Desktop Media</u> To understand how text and images can be used together to convey information To recognise that a document is structured with placeholders To know that text can be edited To know that different layouts suit different purposes	<u>Photo Editing</u> To know that digital images can be manipulated To know that images can be changed for different purposes To which tool to use for a particular purpose To know that not all images are real To consider the impact of change on the quality of the image	<u>Video Editing</u> To know how to use a computer to make a video To save and export a video file	<u>Webpage Creation</u> To know how to create a web page adding and changing position and appearance of text To know how to add images and other content to a web page including hyperlinks
Data and Information	Knows that information can be retrieved from digital devices	<u>Grouping Data</u> To identify that objects can be counted	<u>Pictograms</u> Know how to use a tally chart to collect data	<u>Branching Databases</u> To be able to retrieve	<u>Data Logging</u> To suggest questions that can be answered using	<u>Flat-File Databases</u> To design an approach to answer a question using a	<u>Spreadsheets</u> To identify and propose questions that be answered

	<p>and the internet</p> <p>Can use the internet with adult supervision to find and retrieve information or activities of interest to them</p>	<p>To recognise that information can be presented</p> <p>To recognise that information could be presented in different ways</p>	<p>Compare objects that have been grouped by attribute</p> <p>Suggest appropriate headings for tally charts and pictograms</p> <p>Know a computer can be used to present information</p> <p>KNow why information should not be shared</p>	<p>information from different levels of a branching database</p> <p>To know how to answer yes or no questions</p>	<p>a data set</p> <p>To identify the data we need to answer questions</p> <p>To recognise that a sensor can be used as an input device for data collection</p> <p>To know that a data logger captures 'data points' from sensors over time</p> <p>To know how to export data in different formats</p>	<p>database</p> <p>To explain that computer programs can be used to organise data</p> <p>Be able to design a structure for a flat-file database</p> <p>To understand how to set and sort attributes</p> <p>To select a graph to visually compare data</p>	<p>using data</p> <p>To understand that computers deal with different data types in different ways</p> <p>To understand that formulas can be used to produce calculated data</p> <p>Be able to evaluate the results in relation to the question posed</p>
Making Music			<p>To use a computer to create a piece of music</p> <p>To say how music can make us think and feel</p> <p>To recognise music is made by humans</p> <p>To identify that there are patterns in music</p> <p>To recognise music is made by a series of notes</p> <p>To know that music can be created for a purpose</p> <p>Know how to review and refine computer work</p>				

			To recognise and explain that information on a computer can be stored, retrieved and shared				
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