



EYFS and KS1 COMPUTING PLAN

Curriculum Intent

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 and apply 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.

Curriculum Implementation

At Westbury Park Primary School

Pupils are taught using google applications via G-suite: docs (word processing), slides (presentation), drawing, sheets (databases), forms (questionnaires) and utilise Google classroom as an online classroom to set work and announcements in class, for assessment and to set homework. Children are also taught with a range of online resources such as Espresso Coding. This software enables children to be taught effective computing skills for life in word processing and formula writing alongside more specific skills in coding and programming. Each child has access to the internet and is taught how to use it appropriately and safely alongside how search engines and websites operate. Internet safety is taught regularly at an age appropriate level and forms the basis of all Computing learning. Children are also taught about vocabulary linked to computing and key skills for life including touch typing. Computing is also cross-curricular, progressing children's learning in all areas of the curriculum.

Computing is also taught discretely via a specialist PPA provider for 3 terms per academic year, complementing our school's use of technology.

Curriculum Impact

By the end of each key stage, pupils are expected to know, apply and understand the matters, skills and processes specified in the relevant programme of study.

Each part of the Computing curriculum is reviewed by the subject leader.

EYFS	Cross curricular		
YEAR 1	We are Coders	We are Painters	Exploring Multi Media Unit
YEAR 2	Photos and Media	Unit 4 (Emails and attaching files)	Coding

EYFS	End of Key Stage 1 curriculum expectations	End of Key Stage 2 curriculum expectations
<p>-In Computing, children learn about computers and modern technology, and how we use them.</p> <p>-Computers and technology are a part of our everyday life, and so it is really important that children are confident with them.</p> <p>-Computing is also important because it teaches children to solve problems</p>	<p>Pupils are taught to:</p> <ul style="list-style-type: none"> Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions Create and debug simple programs Use technology purposefully to create, organise, store, manipulate and retrieve digital content Recognise common uses of information technology beyond school Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies 	<p>Pupils are taught to:</p> <ul style="list-style-type: none"> Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts Use sequence, selection, and repetition in programs; work with variables and various forms of input and output Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs Understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content



and come up with new ideas.		<ul style="list-style-type: none"> ● Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information ● Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact
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EYFS

Computing in EYFS is centred around play-based, unplugged (no computer) activities that focus on building children’s listening skills, curiosity, creativity and problem solving.

Allowing children the opportunity to explore technology in this play based and often child-led way, means that not only will the children develop a familiarity with equipment and vocabulary but they will have a strong start in Key Stage 1 Computing and all that it demands.

Computing in EYFS is cross-curricular with a strong link to **communication and language, mathematics, physical development and the characteristics of effective learning** in particular.

Children will learn to:
Understand technology through questions e.g.

How does it work? What happens when I press..? How does equipment help? What can I use it for?

*Technology in the classroom

Laptops, computers, whiteboards, calculators, cameras, tablets, bee bots, voice recorders, electronic toys

*Technology in the home

Microwaves, hoovers, TVs, phones, electronic toys

Children learn **basic coding**-

Instruct beebots to do specific tasks- move forwards, backwards, sideways.

Instruct ‘human’ beebots to move- make up codes for other children to follow.

	YEAR 1	Year 2
Programming	<ul style="list-style-type: none"> ● Programming ● I can explore outcomes when a instructions are given in different orders ● I can explain what an algorithm is ● I can describe and write algorithms to complete specific tasks 	<ul style="list-style-type: none"> ● I can plan out and enter a sequence of commands to carry out specific tasks ● I can reorder a sequence of instructions and correct errors in programs (debug)
Data	<p>Graphs</p> <ul style="list-style-type: none"> ● I can draw a simple graph, e.g. pictogram / block graph ● I can explain what the graph shows 	<p>Databases</p> <ul style="list-style-type: none"> ● I can read and use a simple database to find information ● I can add information to a database ● I can collect and record data purposefully ● I can present data in a bar chart ● I can answer and ask questions about bar charts
Communication	<p>Word processing</p> <ul style="list-style-type: none"> ● I can use letters, basic punctuation, spacebar and enter key to type words and sentences quickly ● I can use backspace to make corrections ● I can use shift key for punctuation 	<p>Word processing</p> <ul style="list-style-type: none"> ● I can edit and improve my work by changing, adding or removing words ● I can change the font size, colour and style to change my work
Digital Literacy and Research	Research	Research



	<ul style="list-style-type: none"> • I can explore a website using buttons, menus and hyperlinks • I can use the 'back' button • I can read words, look at pictures and watch videos on a website to find information <p>E-safety</p> <ul style="list-style-type: none"> • I know I need to follow rules to keep safe online • I know what private information is and that I shouldn't share it online 	<ul style="list-style-type: none"> • I can find out facts by navigating websites • I know each website has a unique address • I can navigate to a website via favourites and typing in address • I know not all the information found on the internet will be accurate or useful • I can use a search engine to find facts using key word search <p>E-safety</p> <ul style="list-style-type: none"> • I know what to do if I find something inappropriate online, & where to go for help • I know how to stay safe by going to appropriate websites • I know that the messages or images I put online leaves a trail • I know how to behave safely and respectfully online
Multimedia	<p>Creating images</p> <ul style="list-style-type: none"> • I can paint with different colours using undo or eraser to correct mistakes I can use different tools such as brush, pen, line, shape and fill • 	<p>Photography</p> <ul style="list-style-type: none"> • I can discuss the quality of my images and make decisions e.g. delete a blurred image • I can use a photograph within a document • I can combine a set of photographs to tell a story

Impact

- Children at Westbury Park become are responsible, competent, confident and creative users of information and communication technology. They learn to apply their understanding of computer science in a range of settings and become digitally literate citizens to prepare them for a changing world.

*Each part of the Computing curriculum is reviewed on a termly basis by the subject leader.