KS2 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 **Understanding the world**	**End of Key Stage 1 curriculum expectations**	**End of Key Stage 2 curriculum expectations**
ELG Children recognise that the range of technology is used in places such as home and school. They select and use technology for particular purposes. **Exceeding ELG** Children find about and use a range of everyday technology. They select appropriate that support an identified need for example in deciding how best to make a record of a special event in their lives, such as a journey on a steam train.	**Pupils are taught to**: ● 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	**Pupils are taught to**: ● 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 ● 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 ● 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

YEAR 3	Y3 We are communicators	Y3 We are researchers	Y3 We are programmers
YEAR 4	Y4 We are processor	Y4 We are creators	Y4 We are software developers

	YEAR 3	YEAR 4
Programming	• I can create a procedure (group of commands) to do a specific task, draw a specific shape	
Data	• I can create a branching database to sort and organise items • I can design a questionnaire to collect information, and display the information in a graph or table	• I can present data in a graph, selecting the most appropriate layout • I can answer questions relating to graphs, and pose my own questions • I can use my graph in a document / presentation to share findings with others
Communication	**Word processing** • I can use cut, copy and paste to reorder content • I can use and resize graphics within my work **Presentations** • I can type text and insert images onto pages • I can add text effects and move items around to find the best layout **Online collaboration** • I can send and reply to online messages, such as email, respectfully • I can add and open attachments • I know not to open messages and attachments from strangers	**Word processing** • I can different layouts and effects (such as text box, columns, tables, justification, borders, background colour) to refine and improve my work **Presentations** • I can add a background colour to improve my work • I can add slide transitions and animation effects **Online collaboration** • I know how and why to keep my personal information private • I can display myself appropriately online, e.g. avatar, code name • I can act appropriately & respectfully online • I know how to deal with cyber-bullying
Digital Literacy and Research	• I can type in a URL to find a website • I can search online for images and information safely **E-safety** • I can present the information I have found and share it with others • I know why we need to keep passwords safe and secure	• I can use more complex search criteria to narrow down my search • I know that not all websites are accurate and can check information using a different site • I can make notes from information found on websites to present my findings
Multimedia		**Creating images** • I can group, copy and move shapes within a picture • I can order shapes / images by sending them to the back / front **Photography** • I can crop and / or rotate an image where needed **Animation** • I can plan an animation using a storyboard • I can edit an animation to improve it / make it more realistic • I can put sounds over an animation • I can plan and create an animation for a given purpose

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.