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.

End of Key Stage 2 curriculum expectations

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
- 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
- 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 5	ICT Year 5 We are web developers	ICT Year 5 We are coders	ICT Year 5 We are communicators
YEAR 6	ICT Year 6 We are communicators	ICT Year 6 We are market researchers	ICT Year 6 We are coders

	YEAR 5	YEAR 6
Programming	• I can plan and test my algorithms and programs, detecting and correcting errors as needed • I can use variables in programs • I can design and write a program that controls or simulates physical systems and sensors	• I can design and create a game, app and / or model, incorporating variables and different forms of input and output. I can test, debug and modify a program to improve it
Data	• I can interrogate a database using more complex searches • I can design and create a database	• I can design and create a survey for a specific purpose, incorporating different features of design and function
Communication	• I can develop consistency across the document **Presentations** • I can add multimedia elements, e.g. sounds, animation • I can trigger animations or link to other slides when objects are pressed **Online collaboration** • I understand that information I put online leaves a trail, or digital footprint • I know how and why to create secure passwords for online accounts • I know what spam is, and how to deal with it	• I can create a consistent design for my presentation, and present to others **Online collaboration** • I can describe the opportunities computer networks and the internet offer for communication and collaboration • I know different ways to report concerns about content & contact
Digital Literacy and Research	• I know how to credit the use of websites in my work, and why this should be done **E-safety** • I know different ways of reporting concerns about content	• I understand how computer networks work, including the internet • I can use search engines effectively, and I know how search results are selected and ranked

Impact

- Children at Westbury Park become 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.