

West Park Church of England Primary School

Curriculum Policy for Computing

'Let your light shine' Matthew 5

Date of approval	November 2023	
Date of next review	Autumn term 2024	
Approved by	Full Governing Body	

West Park CE Primary School – Subject Policy 2023-2024

<u>The Team – 2023-24</u>

Subject leader(s) – Nick Choate and Andy Clarke

Line Managers of Subject Leaders- Sophie Gumbrill and Caitriona Bull

The Importance of Computing

West Park CE Primary School provides opportunities to encourage and challenge all pupils to 'shine' through our inclusive curriculum, which is inspired by shared Christian beliefs, values and practises in our school family.

Our Aims are:

- Ensure our school environment is safe, stimulating and stable;
- Provide exciting and inspiring learning experiences that give every child the opportunity to become enthusiastic, resilient, adaptable learners who actively participate in all aspects of school life;
- Enable pupils to develop lively and enquiring minds, the ability to question and argue rationally and the skill of becoming independent and creative learners;
- Provide a sense of community and citizenship, establishing skills to make and maintain positive relationships with others, working in a team both in and beyond our school;
- Assist in the acquisition of knowledge, skills and attitudes that will enable all children irrespective of their ability, to achieve their full potential in subsequent phases of Education and adult life;
- Enable everyone to develop a sense of their own identity and have respect and understanding of their own and other cultures, beliefs and religions.

Purpose of study

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 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.

<u>Aims</u>

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.

Intention-What will pupils learn at West Park CE Primary?

Year group	Autumn 1*	Autumn 2**	Spring 1	Spring 2	Summer 1	Summer 2
Reception	N/A					
Y1	E-Safety	Computing systems and networks – Technology around us	Computing systems and networks – Technology around us	Digital painting (1.2)	Moving a robot (1.3)	Grouping Data (1.4)
		(1.1) Nativity rehearsal	(1.1)			
Y2	E-Safety	N/A	Scratch Online, Edshed & Numbots		Creating Pictograms (2.4)	Digital Music (2.5)
	2023/24	2023/24	2023/24	2023/24	2023/24	2023/24
	IT Around Us & E-Safety (2.1)	Scratch Online & Edshed & Numbots	Programming Quizzes (2.6)	Digital Photography (IPADS) (2.2)	Creating Pictograms (2.4)	Digital Music (2.5)
Y3	E-Safety	Connecting Computers (3.1)	Creating Media - Animation (3.2)	Creating Media – Desktop Publishing (3.5)	Data and Information – Branching Databases (3.4)	Programming A – Sequence in Music (3.3)
Y4	E-Safety 2023-24 - The Internet (4.1)	Repetition in shapes (4.3)	Repetition in games (4.6)	Photo editing (4.5)	Audio production (4.2)	Data logging (4.4)
Y5	E-Safety	Creating Media - Video editing (5.2)	Data and information - flat-file databases (5.4)	Programming A - Selection in physical computing (5.3)	5.5 Creating media - vector drawing (5.5)	Programming B - Selection in quizzes (5.6)
Y6	E-Safety	Computing software and networks (6.1)	Web page creation (6.2)	Spreadsheets (6.4)	Programming Variables in games (6.3)	Programming Sensing (6.6)

Implementation- What teaching activities are planned in Computing at West Park CE Primary?

Learning is carefully structured and planned in units of work to enable the children to link their previous and new knowledge and skills and to stick this learning together into rich and robust knowledge so the pupils can apply what they know with increasing fluency and independence. These units of work are evaluated and updated as new texts, resources and inspirational events take place. This ensures our curriculum is relevant and robust as well as inspiring and rich. Link to unit plans on website: <u>https://www.westpark.w-sussex.sch.uk/wp-content/uploads/2019/11/Computing-Skills-Progression-Final.pdf</u>

Curriculum overview- Outlines are written and shared with parents each half-term. These are used to inform parents about what will be taught, what children will be able to do and remember after the unit of work and share key vocabulary and resources to support with learning at home. Link to unit plans on website: <u>https://www.westpark.w-sussex.sch.uk/curriculum/</u>

Differentiation and Adaptation -to the curriculum and learning environment

Teachers are responsible and accountable for the progress and development of all the pupils in their class. High quality teaching is our first step in responding to all pupils including those pupils who have SPECIAL EDUCATIONAL NEEDS.

All children, regardless of need, learn alongside their peers wherever possible, apart from short focused interventions to meet their particular SPECIAL EDUCATIONAL NEEDS need/s.

Adaptation is 'any adjustment in the environment... or materials for learning' which enables pupils to access and participate in learning. Darrow (2008)

We make the following adaptations to ensure our curriculum is ambitious and meets the needs of all pupils:

- 1. Adapting learning approaches to provide suitable learning challenges
- 2. Differentiating and adapting our curriculum to ensure all pupils are able to access it, for example, by grouping, additional adult support, teaching style, content of the lesson, resources etc.
- 3. Arranging physical spaces for accessibility for all pupils
- 4. Using recommended aids, such as laptops, coloured overlays, visual timetables, larger font, etc.
- 5. Differentiating our teaching, for example, giving longer processing times, pre-teaching of key vocabulary, reading instructions aloud, shorter pieces of text
- 6. Providing resources and equipment that are accessible and usable by all pupils
- 7. Making reasonable adjustments to practices and policies

Differentiation is defined as 'tailoring teaching to attend to specific pupil's needs and the way they learn' Van Tassel-Baska (2012)

Differentiation at West Park includes:

- 1. Understanding the needs of the pupils
- 2. Valuing and planning for diversity
- 3. Purposeful use of flexible grouping
- 4. Teaching up-aiming high and then scaffolding that helps all pupils reach this.

Enrichment

By carefully planning trips and specialist visitors, we enhance our curriculum offer, bringing our learning to life. A current overview of this for this year is:

	Autumn	Spring	Summer	
EYFS				
Year 1				
Year 2				
Year 3				
Year 4				
Year 5		Crumble		
Year 6			Micro:Bit	

Staff Development

Every subject leader has strategic leadership time each half term to support their monitoring and leadership. They also lead staff training for teaching staff each year. Some subject leaders also lead Maximising Impact of teaching assistants for all support staff to ensure curriculum provision and expertise is consistent across our school.

Community- How do we share our learning with our community?

We share our learning by inviting parents into school throughout the year; examples include performances following drama workshops, music workshops, art exhibitions, sports days, termly parent consultations and open afternoon when parents and families can come into class to see recent work and displays of learning.

Impact- What will the children at West Park remember and be able to do after their learning?

Assessment

Attainment targets

• 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.

Key Stage 1

Pupils should be 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 logical reasoning to predict the behaviour of 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.

Key Stage 2

Pupils should be 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.

End of unit assessments

Whole school assessment proforma based on the Teach computing learning objectives. Each objective will be 'RAG' rated once taught and then the initials of any children exceeding expectations or below expectations will be noted once the unit has been completed. This document will follow the class through the school.

Formative On-going Assessments by class teachers includes feedback and discussion with the child. Samples of work are moderated against expectations and are stored and shared as examples and to demonstrate progress.

Data

All teachers are responsible for keeping accurate records of attainment and progress made in line with the school policy on recording data. See assessment policy.

Marking

Work should be marked regularly in line with the school policy for marking. In computing, verbal feedback is the most effective form of feedback for moving learning on.

Display

See school policy for displays. We aim to inspire and challenge the children, supporting their learning through a working wall combined with celebrating achievement.

Equal Opportunities

Computing plays an important part in the life of our school. It must be available and accessible to every pupil. Activities both within and outside the classroom are planned in a way that encourages full and active participation by all pupils, matched to their knowledge, understanding and previous experience.

Pupils should have equal opportunities to develop their understanding and enjoyment of Computing. Pupils should be taught about diverse focus figures (artists, sports people, authors, characters etc)

Monitoring of Standards

Monitoring of Computing across the whole school is completed by the Subject Leader and shared with staff and Governors in the YILO and annual reports. Year Leaders have the responsibility of monitoring their own year group each term and reporting to the Subject Leader.

- 'Year in the life of' monitoring (YILO).
- Lesson observations/drop-ins
- Work scrutiny/book looks
- Pupil voice meetings
- Termly assessment data tracking (tracking grids/progression grids/pupil progress records)
- Assessment data from summative assessments.

Links to other policies:

- Assessment policy
- Curriculum policy
- Display policy
- Homework policy
- Inclusion policy
- Marking and feedback policy
- Equalities Statement

Policy reviewed on 28.2.23 date by Computing Subject Lead