



Whitley Village School



Whole School Long-Term Rolling Programme Overview Computing

Curriculum Intent

All pupils at Whitley Village School have the right to have rich, deep learning experiences that balance all the aspects of computing. With technology playing such a significant role in society today, we believe 'Computational thinking' is a skill children must be taught if they are to be able to participate effectively and safely in this digital world. A high-quality computing education equips pupils to use 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. At Whitley Village School, the core of computing is Computer Science in which pupils are introduced to a wide range of technology, including laptops, iPads and interactive whiteboards, allowing them to continually practice and improve the skills they learn. This ensures they become digitally literate so that they are able to express themselves and develop their ideas through information and computer technology— at a level suitable for the future workplace and as active participants in a digital world. We teach a curriculum that enables children to become effective users of technology who can:

- * Understand and apply the essential principles and concepts of Computer Science, including logic, algorithms and data representation.
- * Analyse problems in computational term, and have repeated practical experience of writing computer programs in order to solve such problems.
- * Evaluate and apply information technology analytically to solve problems.
- * Communicate ideas well by utilising appliances and devices throughout all areas of the curriculum.

Internet Safety

Whitley Village School takes internet safety extremely seriously. We have listed guidance below for teachers and children about how to use the internet safely. Every year group participates in lessons on e-safety and children understand how to stay safe when using technology. You may find the following links useful to help your child stay safe online at home:

Understanding social networking sites and how to keep your children safe.

Great advice to help keep your children safe online.

Your guide to social networks, apps and games

Safety information for parents.

Keep up to date with any e-safety issues.

[Common sense media](#)

[Think U Know](#)

[Net Aware](#)

[Safer Internet](#)

[ChildNet](#)

	Computer Science			Information Technology		Digital Literacy	
Y1	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.	
Y2	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.	
Y3	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 concern about
Y4	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 concern about content and contact.
Y5	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 concern about content and contact.
Y6	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	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 concern about content.

Theme Key:															
	Coding and Computational thinking		Spreadsheets		Internet and Email		Art and Design		Music		Databases and graphing		Writing and Presenting		Communication and networks

Year I

	Autumn Term			Spring Term			Summer Term		
Unit 1.1 Online Safety & Exploring Purple Mash Weeks – 4 Programs – Various	Unit 1.2 Grouping & Sorting Weeks – 2 Programs – 2DIY	Unit 1.3 Pictograms Weeks – 3 Programs – 2Count	Unit 1.4 Lego Builders Weeks – 3 Programs – 2DIY	Unit 1.5 Maze Explorers Weeks – 3 Programs – 2Go	Unit 1.6 Animated Story Books Weeks – 5 Programs – 2Create A Story	Unit 1.7 Coding Weeks – 6 Programs – 2Code	Unit 1.8 Spreadsheets Weeks – 3 Programs – 2Calculate	Unit 1.9 Technology outside school Weeks – 2 Programs – Various	

Year 2/3/4 -Class 2

	Autumn Term		Spring Term			Summer Term		
Year 2/3/4 Rolling Programme A	Unit 3.1 Coding Number of Weeks – 6 Main Programs – 2Code	Unit 3.2 Online safety Weeks – 3 Programs – Various	Unit 3.3 Spreadsheets Weeks – 3 Programs – 2Calculate	Unit 3.4 Touch Typing Weeks – 4 Programs – 2Type	Unit 3.5 Email (including email safety) Weeks – 6 Programs – 2Email, 2Connect, 2DIY	Unit 3.6 Branching Databases Weeks – 4 Programs – 2Question	Unit 3.7 Simulations Weeks – 3 Programs – 2Simulate, 2Publish	Unit 3.8 Graphing Weeks – 3 Programs – 2Graph
Year 2/3/4 Rolling Programme B	Unit 4.1 Coding Number of Weeks – 6 Main Programs – 2Code	Unit 4.2 Online safety Weeks – 4 Programs – Various	Unit 4.3 Spreadsheets Weeks – 6 Programs – 2Calculate	Unit 4.4 Writing for different audiences Weeks – 5 Programs – 2Email, 2Connect, 2DIY	Unit 4.5 Logo Weeks – 4 Programs – Logo	Unit 4.6 Animation Weeks – 3 Programs – 2Animate	Unit 4.7 Effective Search Weeks – 3 Programs – Browser	Unit 4.8 Hardware Investigators Weeks – 2
Year 2/3/4 Rolling Programme c	Unit 2.1 Coding Weeks – 5 Programs – 2Code	Unit 2.2 Online Safety Weeks – 3 Programs – Various	Unit 2.3 Spreadsheets Weeks – 4 Programs – 2Calculate	Unit 2.4 Questioning Weeks – 5 Programs – 2Question, 2Investigate	Unit 2.5 Effective Searching Weeks – 3 Programs – Browser	Unit 2.6 Creating Pictures Weeks – 5 Programs – 2PaintAPicture	Unit 2.7 Making Music Weeks – 3 Programs – 2Sequence	Unit 2.8 Presenting Ideas Weeks – 4 Programs – Various

Year 4/5/6 -Class 3

Autumn Term

Spring Term

Summer Term

Year 4/5/6 Rolling Programme A	Unit 4.1 Coding Number of Weeks – 6 Main Programs – 2Code	Unit 4.2 Online safety Weeks – 4 Programs – Various	Unit 4.3 Spreadsheets Weeks – 6 Programs – 2Calculate	Unit 4.4 Writing for different audiences Weeks – 5 Programs – 2Email, 2Connect, 2DIY	Unit 4.5 Logo Weeks – 4 Programs – Logo	Unit 4.6 Animation Weeks – 3 Programs – 2Animate	Unit 4.7 Effective Search Weeks – 3 Programs – Browser	Unit 4.8 Hardware Investigators Weeks – 2
Year 4/5/6 Rolling Programme B	Unit 5.1 Coding Number of Weeks – 6 Main Programs – 2Code	Unit 5.2 Online safety Weeks – 3 Programs - Various	Unit 5.3 Spreadsheets Weeks – 6 Programs – 2Calculate	Unit 5.4 Databases Weeks – 4 Programs – 2Question, 2Investigate	Unit 5.5 Game Creator Weeks – 5 Programs – 2DIY 3D	Unit 5.6 3D Modelling Weeks – 4 Programs – 2Design and Make	Unit 5.7 Concept Maps Weeks – 4 Programs – 2Connect	
Year 4/5/6 Rolling Programme c	Unit 6.1 Coding Number of Weeks – 6 Main Programs – 2Code	Unit 6.2 Online safety Weeks – 2 Programs - Various	Unit 6.3 Spreadsheets Weeks – 5 Programs – 2Calculate	Unit 6.4 Blogging Weeks – 5 Programs – 2Blog	Unit 6.5 Text Adventures Weeks – 5 Programs – 2Code, 2Connect	Unit 6.6 Networks Weeks – 3	Unit 6.7 Quizzing Weeks – 6 Programs – 2Quiz, 2DIY, Text Toolkit, 2Investigate	