

Shoscombe Primary School ICT Progression Document

Purpose and Aims of our Computing Curriculum:

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.

The National Curriculum and EYFS Breadth of Study in Computing

	EYFS	KS1	KS2	
	Reception	Year 1 / Year 2	Year 3 / Year 4	Year 5 / Year 6
Skills / Disciplines	Technology (Although this has no ELG, it is still expected that children will be introduced to appropriate technology and use it within their provision).	pupils should be taught to: <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 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. 	pupils should be taught to: <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 § 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. 	
Knowledge		Pupils are taught about: <ul style="list-style-type: none"> - Computer Science - Information Technology - Digital Literacy 	Pupils are taught about: <ul style="list-style-type: none"> - Computer Science - Information Technology - Digital Literacy 	

Computing in EYFS

Children will be familiar with using Ipads and will have access to them during continuous provision. The curriculum allows for them to take photos and film using the camera on the ipads, in order to develop their Communication, Literacy and Expressive Arts and Design. The children have access to the interactive white board to write, draw and create images. Understanding the World will be enhanced primarily by the teacher sharing with the whole class Google Maps and Google Earth as well as watching films of animals and children taking photos in the outside environment. The children will use Bee-Bots to enhance their mathematical skills as well as support the Communication and Language curriculum. As the year progresses the children will start to learn to type their names using a keyboard on a chromebook as well as beginning to learn to log into the chromebook. To enhance their learning the children will use the internet with adult supervision to find and retrieve information.

Our 2-year Cycle Long Term Overview in Computing (See here for unit plans: https://www.purplemash.com/#tab/teachers/computing_sow)

Computer Science	Digital Literacy	Information technology
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Cycle A 2021 - 2022 Computing & e-safety (Purple Mash)

Cycle A		Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
Year 1&2 Breadth of Study	Computing & e-safety	1.1 Online safety 2.5 Effective searching 1.4 Lego Builders 1.9 Technology outside school		1.2 Grouping and sorting 2.6 Creating pictures 1.8 Spreadsheets		1.7 Coding 2.1 Coding	
Year 3&4 Breadth of Study	Computing & e-safety	3.2 Online Safety 3.1 Coding 3.3 Spreadsheets (crash course)		3.4 Touch Typing 3.5 Email		3.6 Branching databases 3.7 Simulations 3.8 Graphing	
Year 5&6 Breadth of Study	Computing & e-safety	5.2 Online Safety 5.1 Coding 5.3 Spreadsheets		5.4 Databases 5.5 Game Creator		5.6 3D Modelling 5.7 Concept Maps	

Cycle B 2022 - 2023 Computing & e-safety (Purple Mash)

Cycle B		Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
Year 1&2 Breadth of Study	Computing & e-safety	1.1 Online safety 1.5 Maze Explorers 2.4 Questioning		2.2 Online safety 1.6 Animated Story Books 2.7 Making Music		2.3 Spreadsheets 1.3 Pictograms 2.8 Presenting ideas	
Year 3&4 Breadth of Study	Computing & e-safety	4.2 Online safety Coding (see separate breakdown) 4.3 Spreadsheets		4.4 Writing for different audiences 4.5 Logo 4.6 Animation		4.7 Effective Search 4.8 Hardware Investigators	
Year 5&6 Breadth of Study	Computing & e-safety	6.2 Online Safety Coding (see separate breakdown) 6.3 Spreadsheets		6.4 Blogging 6.5 Text Adventures 6.6 Networks		6.7 Quizzing	

Coding Breakdown Year 3/4

Coding Breakdown

YEAR 3 & 4 - CYCLE A					
Using Flowcharts Unit 3.1, Lesson 1	Using Timers Unit 3.1, Lesson 2	'if' statements Unit 4.1, Lesson 2	Coordinates Unit 4.1, Lesson 3	Code, Test and Debug – Unit 3.1, Lesson 4	Design, Code, Test and Debug Unit 4.1, Lesson 1
YEAR 3 & 4 - CYCLE B					
Using Repeat Unit 3.1, Lesson 3	Repeat Until and 'if/else' Statements Unit 4.1, Lesson 4	Number Variables Unit 4.1, Lesson 5	Design and Make an Interactive scene Unit 3.1, Lesson 5-6	Making a Playable game – Unit 4.1, Lesson 6	

Coding Breakdown Year 5/6

Coding Breakdown

YEAR 5 & 6 - CYCLE A					
Coding Efficiently Unit 5.1, Lesson 1	Simulating a physical system Unit 5.1, Lesson 2	Friction and Functions Unit 5.1, Lesson 4	Introducing Strings Unit 5.1, Lesson 5	Text Variable and Concatenation Unit 5.1, Lesson 6	User Input Unit 6.1, Lesson 5
YEAR 5 & 6 - CYCLE B					
Designing and writing a more complex program Unit 6.1, Lessons 1 & 2		Decomposition and Abstraction Unit 5.1, Lesson 3	Using Functions Unit 6.1, Lesson 3	Flowcharts and control simulations Unit 6.1, Lesson 4	Text Adventure Unit 6.1, Lesson 6

Progression of Knowledge and Skills

See link here for overall progression linked to National Curriculum : [Progression Doc from Purple Mash](#)

Assessment of knowledge and skills

See link here for unit specific progression with I Can Statements for assessment: [Scheme of Work - I can statements](#)