



# Computing

## Intent

At Chew Stoke Church School it is our intention to enable children to find, explore, analyse, exchange and present information. We also focus on developing the skills necessary for children to be able to use information in a discriminating and effective way. We want children to know more, remember more and understand more in computing so that they leave primary school computer literate. Computing skills are a major factor in enabling children to be confident, creative and independent learners and it is our intention that children have every opportunity available to allow them to achieve this. We intend to build a computing curriculum that develops pupil's learning and results in the acquisition of knowledge of the world around them that ensures 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. We have built a computing curriculum that prepares pupils to live safely in an increasingly digital British society where pupils can evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems.

## Implementation

Chew Stoke Church School follows the Purple Mash scheme of work which covers the whole primary curriculum with a clear structure of progression building on children's previous knowledge. It uses resources embedded within the platform which allows pupils to save, combine and import content which can be shared across the school safely. The Purple Mash platform is also used across the curriculum to embed the use of technology in other subjects.

## In Early Years Foundation Stage

Children in our Early Years provision recognise that a range of technology is used in places such as homes and schools. They select and use technology for particular purposes. They will be exposed to the understanding of internet safety as they explore the world around them and how technology is an everyday part of their learning and understanding of the world.

They have opportunities to learn to:

- Operate simple equipment.
- Retrieve information from computers.
- Complete simple programs on a computer.
- Use ICT hardware to interact with age appropriate computer software.

### In Key Stage 1

- To understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions.
- To create and debug simple programs and use logical reasoning to predict the behaviour of simple programs.
- How to use a range of technology purposefully to create, organise, store, manipulate and retrieve digital content as well as recognise common uses of information technology beyond school.
- To 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.

### In Key Stage 2

- To design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.
- To use sequence, selection, and repetition in programs, use logical reasoning to explain how some simple algorithms work and correct errors in algorithms and programs.
- To understand computer networks, including the internet, and the opportunities they offer for communication and collaboration. They will use search technologies effectively, learn to appreciate how results are selected and ranked, and be discerning in evaluating digital content.
- To select, use and combine a variety of software (including internet services) on a range of digital devices to create a range of programs, systems and content that accomplish given goals.
- To use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.

### Whole School

Teaching and learning should facilitate progression across all key stages within the strands of digital literacy, information technology and computer science. Children will have the opportunity to explore and respond to key issues such as digital communication, cyber-bullying, online safety, security, plagiarism and social media. Wider Curriculum links and opportunities for the safe use of digital systems are considered in wider curriculum planning. The importance of online safety is shown through displays within the learning environment. Parents are informed when issues relating to online safety arise and further information/support is provided if required. As well as opportunities underpinned within the scheme of work, children will also spend time further exploring the key issues associated with online safety.

### Impact

Our Computing Curriculum is high quality, well thought out and is planned to demonstrate progression. Children will be confident users of technology, able to use it to accomplish a wide variety of goals, both at home and in school. Children will have a secure and comprehensive knowledge of the implications of technology and digital systems. This is important in a society where technologies and trends are rapidly evolving. Children will be able to apply the British values of democracy, tolerance, mutual respect, rule of law and liberty when using digital systems.

If children are keeping up with the curriculum, they are deemed to be making good or better progress.

We measure the impact of our Computing Curriculum by the following methods:

- Pupil discussions and interviewing the pupils about their learning (pupil voice).
- Moderation staff meetings with opportunities for dialogue between teachers.
- Evidence from the Purple Mash software.
- A reflection on standards achieved against the planned outcomes.
- Learning walks and reflective staff feedback (teacher voice).
- Dedicated Computing leader time.

## Progression of skills within Computing

		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
S k i l l s	Computational thinking	Skill not introduced at Key Stage One	Skill not introduced at Key Stage One	Use search technologies effectively and understand how results are shown (selected and ranked)	Use sequence, selection and repetitions in programmes  Work with variables and various forms of input/output	Use and combine given software, on a range of devices, to accomplish given goals (collect, analyse, design, create, present and analyse)	Select, use and combine given software, on a range of devices, to accomplish given goals
	<b>Fundamental use of technology (IT&amp; Digital Literacy)</b>	<ul style="list-style-type: none"> <li>• Using a trackpad or mouse</li> <li>• Switching on and shutting down a computer</li> <li>• Launch an application and manipulate (maximise, close and minimise) windows</li> </ul> Using an iPad to take a photo/record	<ul style="list-style-type: none"> <li>• Embedding Year1 fundamentals</li> <li>• Drawing shapes</li> <li>• Shape fill</li> <li>• Shape outline</li> <li>• Font (style, colour, size)</li> <li>• Underlining and italics</li> <li>• Saving and retrieving a file</li> </ul> Creating a document	<ul style="list-style-type: none"> <li>• Embedding Year 2 fundamentals</li> <li>• Word Art</li> <li>• Spell check</li> <li>• <b>B / U</b></li> <li>• Copy and paste information/picture into a document</li> <li>• Re-sizing pictures</li> </ul> Beginning to use Microsoft PowerPoint and adding slides	<ul style="list-style-type: none"> <li>• Embedding Y3 skills</li> <li>• Copy and paste using keyboard shortcuts (Ctrl + C and Ctrl + V)</li> <li>• Formatting picture</li> <li>• Creating a folder</li> <li>• “Dragging and dropping” a file into a folder</li> <li>• Using Microsoft PowerPoint to add animations/transitions</li> </ul> Use search technologies effectively	<ul style="list-style-type: none"> <li>• Alt + Shift to alternate between windows</li> <li>• Drawing a table and inserting columns/rows</li> <li>• Bullet-points and text alignment</li> <li>• Formatting pictures</li> </ul> Applying all skills in a Microsoft document	<ul style="list-style-type: none"> <li>• Manipulate windows for split screen (when combining software)</li> <li>• Watermark</li> <li>• Page insert/orientation</li> <li>• Embed table</li> </ul> Knowledge including merging cells  Applying all skills learnt in a Microsoft PowerPoint
E S a f e t y	<b>Online behaviour</b>	Understand and explain the main consequences of unsafe/unwise online behaviour (i.e. someone might change their password or delete their work)	Understand and explain the main consequences of unsafe/unwise online behaviour (i.e. someone might change their password or delete their work)	Understand that the internet has its bad points as well as good points Recognise acceptable and unacceptable behaviour, including “trolling”	Understand the need and reasons to abide by the school’s acceptable use policy An introduction to social media apps and their potential dangers An introduction to online grooming, self-esteem and online attention	Embed social media apps and their potential dangers Online grooming (link to Stolen Lives)	Explain a person’s online responsibility Evaluate all ICT decisions for e-safety before, during and after using the software/hardware In depth look at their digital footprint (specifically pictures online) Evaluate what social media apps children should be

							using and how to behave on them Online grooming, self-esteem and online attention (link to Stolen Lives)
<b>Applying e-safety</b>	Use technology respectfully and safely	Use technology respectfully and safely	Use technology respectfully, safely and responsibly	Use technology respectfully, safely and responsibly, including how to deal with "cyberbullying"	Use technology respectfully, safely and responsibly, showing an awareness of their digital footprint	Always use technology respectfully, safely and responsibly, showing an increased awareness of their digital footprint and how it can last	
<b>Personal information</b>	Keep personal information private and understand that information on a computer can be shared elsewhere	Keep personal information private and understand that information on a computer can be shared elsewhere	Understand the difference between what information can and cannot be shared online	Know how to stay safe online at home as well as school	Know how to stay safe online at home as well as school	Know how to stay safe online at home as well as school	
<b>Support and reporting</b>	Identify where to go for help or support when they have online concerns	Identify where to go for help or support when they have online concerns	Identify a range of ways to report computing concerns, including on online games and apps	Understand the benefits and drawbacks of social media, including how to identify and report concerns on social media	No additional e-safety concepts. Recap if required to ensure learning is not lost	No additional e-safety concepts. Recap if required to ensure learning is not lost	
<b>Using ICT</b>	Recognise common uses of ICT around school	Recognise common uses of ICT around school	Understand computer networks incl. the internet, and how they can provide multiple services and opportunities	No additional e-safety concepts. Recap if required to ensure learning is not lost	No additional e-safety concepts. Recap if required to ensure learning is not lost	No additional e-safety concepts. Recap if required to ensure learning is not lost	
<b>Evaluating online content</b>	Not introduced at Key Stage 1	Not introduced at Key Stage 1	An introduction to fake news	Understand that not all information on the internet is accurate (link to URLs) Evaluate digital content for utility/usefulness	Explain why some information on the internet is false (i.e. fake news) Evaluate digital content for bias	Evaluate all digital content for accuracy	

## Computing - Class Curriculum Map

The majority of classes at Chew Stoke Church School are mixed age (will have a mix of 2 Year groups), as a result, the curriculum that has been developed runs over a two year cycle. This ensures that learning is never repeated and that knowledge builds on previous knowledge. Cycle B will be determined when class structures for 2023/24 have been established.

	Cycle	Autumn	Spring	Summer
Owl Class	A	Unit 1.1 Online Safety (4 sessions)  Unit 1.2 Grouping and Sorting (2 sessions)  Unit 1.3 Pictograms (3 sessions)	Unit 1.4 Lego Builders (3 sessions)  Unit 1.6 Animated Story Books (5 sessions)	Unit 1.7 Coding (6 sessions)  Unit 1.8 Spreadsheets (3 sessions)
	B			
Kingfisher Class	A	Unit 2.2- Online Safety ( 3 sessions)  Unit 2.5- Effective Searching (3 sessions)  Unit 1.4- Lego Builders (3 sessions)	Unit 2.3- Spreadsheets (4 sessions)  Unit 2.6- Creating Pictures (5 sessions)  Unit 2.8- Presenting Ideas (4 sessions)	Unit 1.7 and 2.1- (Coding 7/8 sessions)  Unit 2.7- Making Music (3 sessions)
	B			
Woodpecker Class	A	Unit 3.1 Coding (6 sessions)  Unit 3.2 Online Safety (3 sessions)  Unit 3.3 Spreadsheets (3 sessions)	Unit 3.4 Touch typing (4 sessions)  Unit 3.7 Simulations (3 sessions)  Unit 4.4 Writing for different audiences (5 sessions)	Unit 4.6 Animation (3 sessions)  Unit 4.5 Logo (4 sessions)  Unit 4.8 Hardware investigators (2 sessions)
	B			
Fox Class	A	Unit 5.1 Coding (6 sessions)  Unit 5.2 Online Safety (4 sessions)  Unit 5.3 Spreadsheets (5 sessions)	Unit 4.7 Effective search (3 sessions)  Unit 5.4 Databases (4 sessions)  Unit 5.5 Game creator (5 sessions)	Unit 4.9 Making Music ( 4 sessions)  Unit 5.8 Word processing (8 sessions)
	B			
Badger Class	A	Unit 6.1 Coding (6 sessions)  Unit 6.2 Online Safety (3 sessions)  Unit 6.4 Blogging (4 sessions)	Unit 6.5 Text Adventures (4 sessions)  Unit 6.6 Networks (3 sessions)  Unit 6.7 Quizzing (6 sessions)	Unit 6.8 Binary (4 sessions)  Unit 6.9 Spreadsheets MS Excel (8 sessions)
	B			