

## Charlton Mackrell C of E Primary School

*The one who gets wisdom loves life. Proverbs 19:8*

Our Learning in **Computing**.

Our computing curriculum is Teach Computing. Children must have an acute understanding of how to stay safe online.

- Children must have a broad range of computational skills that allow them to manipulate technology in a variety of useful ways.
- A wide variety of curriculum subjects are linked and taught through computing, equipping pupils with twenty-first century skills to thrive in their future and achieve life success.
- The computing curriculum aims to empower children to become fluent in the use of a variety of technology and be capable in computational thinking.
- The computing curriculum provides multiple opportunities for learning to be extended by taking it home through secure logins and laptop and iPad free loan schemes. Everyone has home access to IT equipment and broadband free of charge if they need it.
- E-safety will be a regular feature in lessons and homework.
- The curriculum offer aims to raise aspiration of children and motivate pupils to use technology to support and develop their love of learning.

Key:

AL	Algorithms
CS	Computing system
CM	Creating media
DI	Data and information

DD	Design and development
ET	Effective use of tools
IT	Impact of technology
NW	Networks
PG	Programming
SS	Safety and security

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Computing Systems and networks	Technology around us CS, AI	Information technology around us NM,CS	Connecting computer NW, CS	The internet NW, SS	Sharing information NW, ET	Internet communication NW, ET
Creating media	Digital painting ET, CM	Digital photography ET, CM	Stop-frame animation ET, CM	Audio production ET, CM	Video production CM, DD	Webpage creation CM, DD
Programming A	Moving a robot AL,PG	Pictograms DI, ET	Sequencing sound PG, DD	Repetition in shapes AL, PG	Selection in physical computing PG, CS	Variables in games PG, DD
Data and Information	Grouping data DI, AL	Making music CM,DD	Branching database DI, ET	Data Logging CS, DI	Flat-file database DI, ET	Introduction to spreadsheets ET, DI

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<b>Creating media</b>	Digital writing ET, CM		Desktop publishing ET, CM	Photo editing ET, CM	Vector drawing ET, CM	3D Modelling ET, CM
<b>Programming B</b>	Programming animation PG, DD	Programming quizzes PG, DD	Events and action in programs PG, DD	Repetition in games PG, DD	Selection in quizzes AL, PG	Sensing PG, CS

		Term 1		
	Rainbow	Hurricane	Wildfire	Tornado
<b>Computing Systems and networks</b>	<ul style="list-style-type: none"> <li>1 Technology in our classroom</li> <li>2 Using technology</li> <li>3 Developing mouse skills</li> <li>4. Using a computer keyboard</li> <li>5. Developing keyboard skills</li> <li>6. Using a computer responsibly</li> </ul>	<ul style="list-style-type: none"> <li>1 How does a digital device work?</li> <li>2. What parts make up a digital device?</li> <li>3. How do digital devices help us?</li> <li>4 How am I connected?</li> <li>5 How are computers connected?</li> <li>6 What does our school network look like?</li> </ul>	<ul style="list-style-type: none"> <li>1 Connecting networks</li> <li>2 What is the internet made of?</li> <li>3 Sharing information</li> <li>4 What is a website?</li> <li>5 Who owns the web?</li> <li>6 Can I believe what I read?</li> </ul>	<ul style="list-style-type: none"> <li>1Internet address</li> <li>2 Data packets</li> <li>3 Working together</li> <li>4 Shared working</li> <li>5 How we communicate</li> <li>6 Communicating responsibly</li> </ul>

		Term 2		
	Rainbow	Hurricane	Wildfire	Tornado
Creating media	1 How can we paint using computers? 2 Using shape and lines 3 Making careful choices 4 Why did I chose that? 5 Painting all by myself 6 Comparing computer art and painting	1 Can a picture move? 2 Frame by frame? 3 What's the story? 4 Picture perfect 5 Evaluate and make it great! 6 Lights, camera, action!	1 Digital recording 2 Recording sounds 3 Creating a podcast 4 Editing digital recordings 5 Combining audio 6 Evaluating podcast	1 What makes a good website? 2 How would you layout your website? 3 Copyright or CopyWRONG? 4 How does it work? 5 Follow the breadcrumbs 6 Think before you link!

		Term 3		
	Rainbow	Hurricane	Wildfire	Tornado
Programming A	1 Buttons 2 Directions 3 Forwards and backwards 4 Four directions 5 Getting there 6 Routes	1 Introduction to Scratch 2 Programming sprites 3 Sequences 4 Ordering commands 5 Looking good 6 Making an instrument	1 Programming screen turtle 2 Programming letters 3 Patterns and repeats 4 Using loops to create shapes 5 Breaking things down 6 Creating a program	1 Introducing variables 2 Variables in programming 3 Improving a game 4 Designing a game 5 Design to code 6 Improving and sharing

		Term 4		
	Rainbow	Hurricane	Wildfire	Tornado
<b>Data and information</b>	1 Label and match 2 Group and count 3 Describe an object 4 Making different groups 5 Comparing groups 6 Answering questions	1 Yes or no questions 2 Making groups 3 Creating a branching database 4 Structuring a branching database 5 Using a branching database 6 Two ways of presenting information	1 Answering questions 2 Data collection 3 Logging 4 Analysing data 5 Data for answers 6 Answering my questions	1 Collecting data 2 Formatting a spreadsheet 3 What's the formula? 4 Calculate and duplicate 5 Event planning 6 Presenting data

		Term 5		
	Rainbow	Hurricane	Wildfire	Tornado
<b>Creating media</b>	1 Exploring the keyboard 2 Adding and removing text 3 Exploring the toolbar 4 Making changes to text 5 Explaining my choices 6 Pencil or keyboard	1 Words and pictures 2 Can you edit it? 3 Great template! 4 Can you add content? 5 Lay it out 6 Why desktop publishing?	1 Changing digital images 2 Changing the composition of images 3 Changing images for different uses 4 Retouching images 5 Fake images 6 Making and evaluating a publication	1 Introduction to 3D modelling 2 Modifying 3D objects 3 Make your own name badge 4 Making a desk tidy 5 Planning a 3D model 6 Make your own 3D model

		Term 6		
	Rainbow	Hurricane	Wildfire	Tornado
Programming B	<ul style="list-style-type: none"> <li>1 Comparing tools</li> <li>2 Joining blocks</li> <li>3 Make a change</li> <li>4 Adding sprites</li> <li>5 Project design</li> <li>6 Following my design</li> </ul>	<ul style="list-style-type: none"> <li>1 Moving a sprite</li> <li>2 Maze movement</li> <li>3 Drawing lines</li> <li>4 Adding features</li> <li>5 Debugging movement</li> <li>6 Making a project</li> </ul>	<ul style="list-style-type: none"> <li>1 Using loops to create shapes</li> <li>2 Different loops</li> <li>3 Animate your name</li> <li>4 Modifying a game</li> <li>5 Designing a game</li> <li>6 Creating our game</li> </ul>	<ul style="list-style-type: none"> <li>1 The micro:bit</li> <li>2 Go with the flow</li> <li>3 Sensing inputs</li> <li>4 Finding your way</li> <li>5 Designing a step counter</li> <li>6 Making a step counter</li> </ul>