Aycliffe Drive Primary School Computing Curriculum Overview 2023

	The Early Years Curriculum is taught through seven areas of learning: Communication and Language, Physical Development, Personal, Social and Emotional Development, Literacy, Maths, Understanding the World and Expressive Arts and Design. Computing and Digital Literacy is taught within the appropriate areas where links can be made. Our curriculum is designed to be ambitious, yet also flexible and responsive to the specific cohort's needs and interests.
Early Years Foundation Stage	In the EYFS, children are introduced to technology through using the Interactive Whiteboard to teach, playing age-appropriate games linked to the curriculum on the board with supervision. Parents are asked about what technology is available to the children in the home through questionnaires and this information is used to inform planning, incorporating suitable games they are already familiar with. This encourages smoother transitions from home to school and staff are able to extend children's learning through already familiar apps and games, as well as others. Children have the opportunity to explore technology in the classroom and learn about its wider uses in their lives. We encourage the use of Tapestry by parents as an important tool for sharing information and use the children's voice as much as possible in the observations we post. Children are able to to incorporate items from real life in their imaginative play, such as phones, keyboards, remote controls and other suitable items. Parents are also included in the distribution of E-Safety newsletters and invited to Parent workshops on E-Safety when available. Staff talk about E-Safety using 'in the moment' opportunities such as when using a search engine to find information online, talking about the need for supervision when using the internet and who to talk to if children see something they don't like online
	In order to prepare children for their next stage of learning, children in the Foundation Stage will be taught: To follow simple two-step instructions, e.g. "Hang up your coat and then sit on the carpet" To know that information can be received from digital devices and the internet To use an iPad to take a photo To use technology in everyday life. operating simple equipment, cd player, remote control, iPad, touch screen device, game console, qwerty keyboard To have an understanding of which words to use to retrieve information/photo online (dictating and/or typing) To use technology safely and respectfully. To understand the need to stay safe online and when using technology

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	Key Stage One					
	Autumn 1	**Autumn 2**	**Spring 1**	**Spring 2**	**Summer 1**	**Summer 2**
Year 1	**Computing Systems and Networks- Technology Around Us** 1 Technology around us 2 Using technology 3 Developing mouse skills 4 Using a computer keyboard 5 Developing keyboard skills 6 Using a computer responsibly	**Creating Media- Digital Painting** 1 How can we paint using computers? 2 Using shape and lines 3 Making careful choices 4 Why did I choose that? 5 Painting all by myself 6 Comparing computer art and painting	**Programming A- Moving a Robot** 1 Buttons 2 Directions 3 Forwards and backwards 4 Four directions 5 Getting there 6 Routes	**Data and information – Grouping data** 1 Label and match 2 Group and count 3 Describe an object 4 Making different groups 5 Comparing groups 6 Answering questions	**Creating Media- Digital Writing** 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?	**Programming B- Programming Animations** 1 Comparing tools 2 Joining blocks 3 Make a change 4 Adding sprites 5 Project design 6 Following my design
Year 2	**Computing System- Information Technology Around Us** 1 What is IT? 2 IT in school 3 IT in the world 4 The benefits of IT 5 Using IT safely 6 Using IT in different ways	**Creating Media- Digital Photography** 1 Taking photographs 2 Landscape or portrait? 3 What makes a good photograph? 4 Lighting 5 Effects 6 Is it real?	**Programming A- Robot Algorithms** 1 Giving instructions 2 Same but different 3 Making predictions 4 Mats and routes 5 Algorithm design 6 Break it down	**Data and information- Pictograms** 1 Counting and comparing 2 Enter the data 3 Creating pictograms 4 What is an attribute? 5 Comparing people 6 Presenting information	**Creating Media- Digital Music** 1 How music makes us feel 2 Rhythms and patterns 3 How music can be used 4 Notes and tempo 5 Creating digital music 6 Reviewing and editing music	**Programming B- Programming Quizzes** 1 ScratchJr recap 2 Outcomes 3 Using a design 4 Changing a design 5 Designing and creating a program 6 Evaluating

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Year 3	**Computing Systems and Networks- Connecting Computers** 1 How does a digital device work? 2 What parts make up a digital device? 3 How do digital devices help us? 4 How am I connected? 5 How are computers connected? 6 What does our school network look like?	**Creating Media- Stop Frame Animation** 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!	**Programming A- Sequencing Sounds** 1 Introduction to Scratch 2 Programming sprites 3 Sequences 4 Ordering commands 5 Looking good 6 Making an instrument	**Data and Information- Branching Databases** 1 Yes or no questions 2 Making groups 3 Creating a branching database 4 Structuring a branching database 5 Planning a branching database 6 Making a dinosaur identifier	**Creating Media- Desktop Publishing** 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?	**Programming B- Events and Actions in Programs** 1 Moving a sprite 2 Maze movement 3 Drawing lines 4 Adding features 5 Debugging movement 6 Making a project
Year 4	**Computing Systems and Networks -The Internet** 1 Connecting networks 2 What is the internet made of? 3 Sharing information 4 What is a website? 5 Who owns the web? 6 Can I believe what I read?	**Crating Media- Audio Production** 1 Recording sound 2 Editing audio 3 Planning a podcast 4.Creating a podcast 5 Combining audio 6 Evaluating podcasts	**Programming A- Repetition in Shapes** 1 Programming a screen turtle 2 Programming letters 3 Patterns and repeats 4 Using loops to create shapes 5 Breaking things down 6 Creating a program	**Data and Information- Data Logging** 1 Answering questions 2 Data collection 3 Logging 4 Analysing data 5 Data for answers 6 Answering my question	**Creating Media- Photo Editing** 1 Changing digital images 2 Recolouring 3 Cloning 4 Combining 5 Creating 6 Evaluating	**Programming B- Repetition in Games** 1 Using loops to create shapes 2 Different loops 3 Animate your name 4 Modifying a game 5 Designing a game 6 Creating your games

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	In **Upper Key Stage 2**, Years 5 and 6, Computing is taught on a 2 year cycle in half-termly rotations with Music. For instance, in Spring 1 (Jan 2024) children will have a term of Music, with a 1 hour lesson and in Spring 2 (after Feb half term 2024) they will do a Computing 1 hour lesson in the same slot and carry this on for summer term. From Sept 2025 the curriculum will be taught as follows:					
	Cycle A					
	Autumn 1	**Autumn 2**	**Spring 1**	**Spring 2**	**Summer 1**	**Summer 2**
Year 5	**Data and information – Flat-file databases** 1 Creating a paper-based database 2 Computer databases 3 Using a database 4 Using search tools 5 Comparing data visually	**Music**	**Creating media – Introduction to vector graphics** 1 The drawing tools 2 Creating images 3 Making effective drawings 4 Layers and objects 5 Manipulating objects 6 Create a vector drawing	**Music**	**Programming B – Selection in Quizzes** 1 Exploring conditions 2 Selecting outcomes 3 Asking questions 4 Designing a quiz 5 Testing a quiz 6 Evaluating a quiz	**Music**
Year 6	**Data and information - Introduction to Spreadsheets** 1 Collecting data 2 Formatting a spreadsheet 3 What's the formula? 4 Calculate and duplicate 5 Event planning 6 Presenting data	**Music**	**Creating media – 3D Modelling** 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	**Music**	**Programming B - Sensing movement** 1 The micro:bit 2 Go with the flow 3 Sensing inputs 4 Finding your way 5 Designing a step counter 6 Making a step counter	**Music**

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	Cycle B					
	Autumn 1	**Autumn 2**	**Spring 1**	**Spring 2**	**Summer 1**	**Summer 2**
Year 5	**Computing Systems and Networks: Systems and Searching** 1 Systems 2 Computer systems and us 3 Searching the web 4 Selecting search results 5 How search results are ranked	**Music**	**Creating Media- Video Production** 1 What is video? 2 Filming techniques 3 Using a storyboard 4 Planning a video 5 Importing and editing video 6 Video evaluation	**Music**	**Programming A- Selection in Physical Computing** 1 Connecting Crumbles 2 Combining output components 3 Controlling with conditions 4 Starting with selection 5 Drawing designs 6 Writing and testing algorithms	**Music**
Year 6	**Computing systems and networks - Communication and collaboration** 1 Internet addresses 2 Data packets 3 Working together 4 Shared working 5 How we communicate 6 Communicating responsibly	**Music**	**Creating media – Web page creation** 1 What makes a good website? 2 How would you lay out your web page? 3 Copyright or copyWRONG? 4 How does it look? 5 Follow the breadcrumbs 6 Think before you link!	**Music**	**Programming A – Variables in Games** 1 Introducing variables 2 Variables in programming 3 Improving a game 4 Designing a game 5 Design to code 6 Improving and sharing	**Music**