COMPUTING

End of EYFS Expectations		
Autumn –Introduction to Purple Mash	Spring – Beebots and using Mini Mash	Summer – Digital literacy

Key Stage 1 National Curriculum Expectations	Key Stage 2 National Curriculum Expectations
At St Martins we use the Purple Mash scheme to deliver computing lessons. Pupils have individual logins for Purple Mash and G Suite. Pupils should be taught to: • 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.	At St Martins we use the Purple Mash scheme to deliver computing lessons. Pupils have individual logins for Purple Mash and G Suite. Pupils should be taught to: • 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.

AUTUMN	SPRING	SUMMER
Digital Literacy	Computer Science	Information Technology

CURRICULUM COVERAGE					
	AUTUMN		SPRING		SUMMER
Year 1	(Unit 1:1) Online Safety & Exploring Purple Mash (Unit 1:9) Technology outside school		(Unit 1:4) Lego Builders (Unit 1:5) Maze Explorers (Unit 1:7) Coding		(Unit 1:3) Pictograms (Unit 1:6) Animated Story Books (Unit 1:8) Spreadsheets
Year 2	(Unit 2:2) Online Safety (Unit 2:5) Effective Searching		(Unit 2:1) Coding	(Unit 2:7) Making Music	(Unit 2:3) Spreadsheets (Unit 2:4) Questioning (Unit 2:6) Creating Pictures (Unit 2:8) Presenting Ideas
Year 3	(Unit 3:2) Online safety (Unit 3:5) Email (including email safety)		(Unit 3:1) Coding	(Unit 3:4) Touch Typing (Unit 3:7) Simulations	(Unit 3:3) Spreadsheets (Unit 3:6) Branching Databases (Unit 3:8) Graphing (Unit 3:9) Presenting (with Microsoft PowerPoint or Google Slides)
Year 4	(Unit 4:2) Online safety	(Unit 4:7) Effective Search	(Unit 4:1) Coding (Unit 4:5) Logo (Unit 4:8) Hardware Investigators		(Unit 4:3) Spreadsheets (Unit 4:4) Writing for different audiences (Unit 4:6) Animation (Unit 4:9) Making Music
Year 5	(Unit 5:2) Online safety	(Unit 5:8) Word processing (with Microsoft Word or Google Docs)	(Unit 5:1) Coding (Unit 5:5) Game Creator		(Unit 5:3) Spreadsheets (Unit 5:4) Databases (Unit 5:6) 3D Modelling (Unit 5:7) Concept Maps
Year 6	(Unit 6:2) Online safety	(Unit 6.6 – Network)s (Unit 6.1 – Coding)	(Unit 6:5) Text Adventures (Unit 6:8) Understanding Binary	(Unit 6:7) Quizzing	(Unit 6:3) Spreadsheets (Unit 6:9) Spreadsheets (with Microsoft Excel or Google Sheets) (Unit 6:4) Blogging

Features of our St. Martin's school life	In the spring term, the school celebrate 'National Online Safety day'. On this day teachers are provided with resources to use in their fortnightly computing sessions. Each year there is a theme provided by 'UK Safer Internet Centre', for example in 2022 it was 'gaming'. This day highlights to our children the importance of keeping themselves and others safe online. It gives them the skills to use the internet effectively and respectfully.					
	YEAR 1	**YEAR 2**	**YEAR 3**	**YEAR 4**	**YEAR 5**	**YEAR 6**
Vocabulary	**username, password, avatar, save, program, debug, instruction, right-turn, left-turn, input, command, click, mouse, computer, button**	**action, algorithm, nesting, run, sequence, test, search, internet, tools, spreadsheet, data, pictogram, digitally, presentation, delete key**	**command, nesting, flowchart, repeat, procedure, PEGI rating, webpage, copy and paste, cells, Columns and rows, keys, report, compose, database, simulation, slide show**	**variable, co-ordinates, cookies, computer virus, identity theft, formula, equals tool, font, bold, logo, animation, search engine, speakers, network**	**function, properties, tab, shared image, SMART rules, plagiarism, average, statistics and reports, perspective, CAD, formatting, text wrapping, word art**	**decomposition, simulation, user input, phishing, digital footprint, count tool, blog, vlog, icon, sprite, world wide web, wireless, byte, formula**
Computer Science - Success Criteria	Understand that an algorithm is a set of instructions used to solve a problem or achieve an objective. Work out what is wrong with a simple algorithm when the steps are out of order. When looking at a program, children	Explain that an algorithm is a set of instructions to complete a task. Create a simple program that achieves a specific purpose. They can also identify and correct some errors. Identify the parts of a program that respond to specific	Turn a simple real-life situation into an algorithm for a program by deconstructing it into manageable parts. Identify an error within their program that prevents it following the desired algorithm and then fix it.	Use coding structures for selection and repetition and make more intuitive attempts to debug their own programs. Use of timers to achieve repetition effects. Understand 'IF statements' for selection.	Can test and debug programs. Translate algorithms that include sequence, selection and repetition into code. Combine sequence, selection and repetition with other coding structures to achieve their algorithm design.	Turn a more complex programming task into an algorithm by identifying the important aspects of the task (abstraction) and then decomposing them in a logical way using their knowledge of possible coding structures and applying skills from previous programs.

	can read code one line at a time and make good attempts to envision the bigger picture of the overall effect of the program.	events and initiate specific actions.	List a range of ways that the Internet can be used to provide different methods of communication.	Understand and use and manipulate the value of variables. Make use of user inputs and outputs such as 'print to screen'. e.g. Recognise the main component parts of hardware which allow computers to join and form a network. Understand the online safety implications associated with the ways the internet can be used to provide different methods of communication.	Recognise what personal information is and can explain how this can be kept safe. Select the most appropriate form of online communications	Test and debug their program as they go and use logical methods to identify the cause of bugs. Translate algorithms that include sequence, selection and repetition into code and their own designs. Interpret a program in parts and can make logical attempts to put the separate parts of a complex algorithm together to explain the program as a whole. Understand and can explain in some depth the difference between the internet and the World Wide Web. Know what a WAN and LAN are and can describe how they access the internet in school.

Information Technology- Success Criteria	Sort, collate, edit and store simple digital content e.g. can name, save and retrieve work and follow simple instructions to access online resources, use Purple Mash 2Quiz example (sorting shapes), 2Code design mode (manipulating backgrounds) or using pictogram software such as 2Count.	Demonstrate an ability to organise data using, for example, a database such as 2Investigate and can retrieve specific data for conducting simple searches. Be able to edit more complex digital data such as music compositions within 2Sequence. Use a range of media in their digital content including photos, text and sound.	Carry out simple searches to retrieve digital content. Understand that to do this, they are connecting to the internet and using a search engine such as Purple Mash search or Internet-wide search engines. Collect, analyse, evaluate and present data and information using a selection of software. Create purposeful content to attach to emails, e.g. 2Respond.	Understand the function, features and layout of a search engine. Select webpages for credibility and information at a basic level. Make informed software choices when presenting information and data. Create linked content using a range of software such as 2Connect and 2Publish+.	Search with greater complexity for digital content when using a search engine. Be able to explain in some detail how credible a webpage is and the information it contains. Be able to make appropriate improvements to digital solutions based on feedback received and can confidently comment on the success of the solution. Be able to use several ways of sharing digital content, i.e. 2Blog, Display Boards and 2Email.	Be able to explain in detail how credible a webpage is and the information it contains. Compare a range of digital content sources and are able to rate them in terms of content quality and accuracy. Make clear connections to the audience when designing and creating digital content. Design and create their own blogs to become content creators on the internet. Be able to use criteria to evaluate the quality of digital solutions and are able to identify improvements, making some refinements.

Digital Literacy - Success Criteria	Understand what is meant by technology and can identify a variety of examples both in and out of school. Understand the importance of keeping information, such as passwords, private and actively demonstrate this in lessons. Take ownership of their work and save work in a private space such as the 'My Work' folder on Purple Mash.	Effectively retrieve relevant, purposeful digital content using a search engine.. Know the implications of inappropriate online searches. Begin to understand how things are shared electronically such as posting work to the Purple Mash display board. Develop an understanding of using email safely by using 2Respond activities on Purple Mash and know ways of reporting inappropriate behaviours and content	Demonstrate the importance of having a secure password and not sharing this with anyone else. Understand the importance of staying safe and the importance of their conduct when using familiar communication tools such as 2Email in Purple Mash.	Explore key concepts relating to online safety using concept mapping. Have a secure knowledge of a range of ways of reporting inappropriate content and contact.	Have a secure knowledge of common online safety rules and can apply this by demonstrating the safe and respectful use of a few different technologies and online services.	Demonstrate the safe and respectful use of a range of different technologies and online services. Identify more discreet inappropriate behaviours through developing critical thinking. Recognise the value in preserving their privacy