Computing Curriculum

St Matthew's Church of England Primary School

Curriculum Intent	Breadth and balance	Key resources & provision	Subject Leader
At St Matthew's our curriculum is designed to build upon prior learning, improve communication skills, promote creativity, broaden knowledge and prepare pupils for life beyond school. We embrace our diversity as individuals and celebrate our unity as a caring, Christian community.	We value pupils as individuals and aim to recognise their achievements in a wide range of areas. Our curriculum therefore ensures balance between academic and personal development. It gives equal importance to core and foundation subjects.	**Purple Mash** scheme of work. Sets of laptops Year group sets of iPads Scratch Jnr / Scratch Beebots	**Miss Quinton**

Communication	• Key vocabulary is taught explicitly, such as *program, debug, algorithm, input* and *output.* • Pupils begin to understand the need for clear, explicit, unambiguous instructions when creating programs. • Clear and explicit focus on Computing learning objectives improves subject specific knowledge.
Aspiration	• High expectations benefit all pupils, with a focus on accessing the latest technology and embracing change. • Pupils utilise technology on a daily basis, preparing them for the future and their role as citizens of the computer age. • A focus on online safety ensures that pupils are empowered by technology but also wary of potential dangers.
Creativity	• A cross-curricular approach engages interest and facilitates the understanding of wider themes. • Creative use of digital resources enriches the curriculum. For example, use of green screen to create video blogs. • Digital media is used beyond the classroom to enhance learning and improve parental engagement. For example, *dojo.*
Knowledge of the World	• Pupils learn to use a range of digital devices and online resources to support their learning throughout the curriculum. • Pupils develop skills of programming, word processing and data retrieval. • Pupils appreciate the benefits of technology but also know to be safe online and how to report inappropriate activity.

Suggested monitoring schedule	Autumn	Spring	Summer
Work scrutiny	5 6	3 4	EYFS 1 2
Drop ins	3 4	EYFS 1 2	5 6
Pupil perceptions	EYFS 1 2	5 6	3 4

Purple Mash: This resource offers a progressive scheme of work, a wide range of resources linked to topic themes and the platform to record and share evidence of pupils' learning.

Computing Curriculum Progression EYFS / KSI

Year group	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
EYFS	Food	Favourite Stories	People Who Help Us	Transport	The Sea	Animals
By the end of the year pupils will… • Recognise that a range of technology is used in places such as homes and schools. • Select and use technology for a particular purpose. • Use simple apps on an iPad and access purposeful activities on the interactive whiteboard. • Know how to use simple electronic devices such as CD players and digital microphones. • Take photographs using an iPad or digital camera. • Understand that they should only go online when supervised by an adult. (online safety)						
Year 1	Online Safety & Exploring Purple Mash Algorithms	Grouping & Sorting Pictograms	Lego Builders	Word Processing	Animated Story Books	Coding
By the end of the year pupils will… • Begin to understand what algorithms are, how they are implemented as programs and that programs execute by following precise instructions. • Begin to create and debug simple programs. • Begin to use logical reasoning to predict the behaviour of simple programs. • Begin to use technology purposefully to create, organise, store, manipulate and retrieve digital content. • Begin to recognise common uses of information technology beyond school. • Use technology safely and respectfully, keeping personal information private. • Know where to go for help when they have concerns about activity online.						
Year 2	Creating Pictures	Online Safety Questioning	Spreadsheets	Effective Searching	Coding	Presenting Ideas
By the end of the year pupils will… • Understand what algorithms are, how they are implemented as programs 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. • Know where to go for help when they have concerns about activity online.						

Subjects in red link to the overall topic theme for that half term.

Purple Mash: Progression is built into the units of work, challenging pupils to tackle increasingly complex tasks and ensuring that all resources reflect the age and ability of the pupils.

Computing Curriculum Progression KS2

Year 3	Online Safety	Spreadsheets	Coding	Email	Touch Typing	Presenting with PowerPoint

By the end of the year pupils will…

- Begin to design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.
- Begin to use sequence, selection and repetition in programs; work with variables and various forms of input and output.
- Begin to use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.
- Begin to understand computer networks, including the internet; how they provide multiple services such as the World Wide Web; and opportunities they offer for communication and collaboration.
- Begin to use search technologies effectively, appreciate how results are selected and ranked and be discerning in evaluating digital content.
- With support, 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 and unacceptable behaviour.
- Identify a range of ways to report concerns about content and contact.

Year 4	Hardware Online Safety	Logo	Animation	Coding	Spreadsheets	Effective Searching

By the end of the year pupils will…

- Begin to design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.
- Begin to use sequence, selection and repetition in programs; work with variables and various forms of input and output.
- Begin to use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.
- Begin to understand computer networks, including the internet; how they provide multiple services such as the World Wide Web; and opportunities they offer for communication and collaboration.
- Begin to use search technologies effectively, appreciate how results are selected and ranked and be discerning in evaluating digital content.
- With support, 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 and unacceptable behaviour.
- Identify a range of ways to report concerns about content and contact.

Subjects in red link to the overall topic theme for that half term.

Purple Mash: Progression is built into the units of work, challenging pupils to tackle increasingly complex tasks and ensuring that all resources reflect the age and ability of the pupils.

Computing Curriculum Progression KS2

Year 5	Game Creator	Databases	Coding	Concept Maps	Spreadsheets	3D Modelling Online safety

By the end of the year pupils will…

- 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 provide multiple services such as the World Wide Web; and 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 and unacceptable behaviour.
- Identify a range of ways to report concerns about content and contact.

Year 6	Blogging	Quizzing	Networks Online Safety	Spreadsheets	Coding	Text Adventures

By the end of the year pupils will…

- 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 provide multiple services such as the World Wide Web; and 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 and unacceptable behaviour.
- Identify a range of ways to report concerns about content and contact.

Subjects in red link to the overall topic theme for that half term.