



Progression in Computing

Who's who?

Subject Leader: Mrs Hayton

Teaching staff: Mrs Watts, Mr Armstrong, Mrs Hayton, Miss Dixon

Our Aims

“A high-quality computing education equips pupils to understand and change the world through computational thinking. It develops and requires logical thinking and precision. It combines creativity with rigour: pupils apply underlying principles to understand real-world systems, and to create purposeful and usable artefacts.”

Computing curriculum, Programmes of Study (2019)

As computing is an increasing part of life today, at Rosley C of E School it is essential that all our pupils gain the confidence and ability that they need in this subject and to prepare them for a rapidly-evolving technological world.

We aim that all pupils understand how to use technology safely and the importance of ‘keeping safe online’, that all our pupils are digitally literate in the key computing skills and recognise the links with other subjects, and that they are able to express their ideas using computer technology and are inspired to be creative with technology.

Our pupils’ ask us for computing that is fun and creative. We aim to provide a computing curriculum which allows them to learn new skills which can be transferred across the curriculum and to increase their confidence in technology which will help them in later life.

YEAR B 2022 - 2023

YEARS RECEPTION, 1 & 2		
TERM	UNIT OF STUDY	LEARNING/KEY SKILLS
Autumn 1	Computer systems & networks- Technology around us	<ul style="list-style-type: none"> • To recognise common uses of information technology beyond school • To use technology purposefully to create, organise, store, manipulate, and retrieve digital content • 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
Autumn 2	Creating media- Digital painting	<ul style="list-style-type: none"> • To use technology purposefully to create, organise, store, manipulate, and retrieve digital content
Spring 1	Programming- Moving a robot	<ul style="list-style-type: none"> • 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 • To use logical reasoning to predict the behaviour of simple programs • To recognise common uses of information technology beyond school
Spring 1	Creating media- Digital photography	<ul style="list-style-type: none"> • To use technology purposefully to create, organise, store, manipulate, and retrieve digital content • To 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

Summer 1	Data & information- Pictograms	<ul style="list-style-type: none">• To use technology purposefully to create, organise, store, manipulate and retrieve digital content• 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
Summer 2	Programming- programming animations	<ul style="list-style-type: none">• 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• To use logical reasoning to predict the behaviour of simple programs

YEAR 3 & 4		
TERM	UNIT OF STUDY	LEARNING/KEY SKILLS
Autumn 1	Computer systems & networks- The Internet	<ul style="list-style-type: none"> • To 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 • To use search technologies effectively, 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 design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information • To use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact
Autumn 2	Online safety Programming- Events & Actions	<ul style="list-style-type: none"> • Learning depends on results from assessment • 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; work with variables and various forms of input and output • To use logical reasoning to explain how some simple algorithms work, and to detect and correct errors in algorithms and programs • To 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

Spring 1	Creating media- animation	<ul style="list-style-type: none"> • To 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 • To use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.
Spring 2	Online safety Programming- sequencing sounds	<ul style="list-style-type: none"> • Learning depends on results from assessment • 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; work with variables and various forms of input and output • To use logical reasoning to explain how some simple algorithms work, and to detect and correct errors in algorithms and programs • To 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
Summer 1	Programming- Blubots	<ul style="list-style-type: none"> • 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; work with variables and various forms of input and output • To use logical reasoning to explain how simple algorithms work and to detect and correct errors in algorithms
Summer 2	Online safety	<ul style="list-style-type: none"> • Learning depends on results from assessment

	Productivity- We are opinion pollsters	<ul style="list-style-type: none">• To 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• To use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact
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YEAR 5 & 6		
TERM	UNIT OF STUDY	LEARNING/KEY SKILLS
Autumn 1	Creating media-3D Modelling	<ul style="list-style-type: none"> • To 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 • To use technology safely, respectfully, and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact •
Autumn 2	Programming- repetition	<ul style="list-style-type: none"> • 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; work with variables and various forms of input and output • To use logical reasoning to explain how some simple algorithms work, and to detect and correct errors in algorithms and programs • To 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
Spring 1	Creating media- Vector drawing	<ul style="list-style-type: none"> • To 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.

Spring 2	Programming- selection in quizzes	<ul style="list-style-type: none"> • 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; work with variables and various forms of input and output • To use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs • To 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
Summer 1	Creating media- video editing	<ul style="list-style-type: none"> • To use search technologies effectively, 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 design and create a range of programs, systems, and content that accomplish given goals, including collecting, analysing, evaluating, and presenting data and information • To use technology safely, respectfully, and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact • To use technology safely, respectfully, and responsibly; recognise acceptable/unacceptable behaviour
Summer 2	Programming- selection using physical devices	<ul style="list-style-type: none"> • 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; work with variables and various forms of input and output

		<ul style="list-style-type: none">• To use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs• To 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
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