

## St. Gabriel's CE Primary School Computing Yearly Overview 2023-24 National Curriculum Objectives

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2			
Aims:									
•	Under the EYFS new framework 'Understanding the world' no longer contains the 'technology' strand. However, we ensure that Reception children continue to develop their computing skills:								
Year R	<ul> <li>Online safety is covered</li> </ul>	ed through PSHE and discussion abo	out personal boundaries						
	<ul> <li>Complete a simple pro</li> </ul>	gram on the computer and / or perfo	rm simple functions on ICT equipmen	t.					
	Know how to operate simple equipment.								
	<ul> <li>To show an interest in</li> </ul>	Computing.							
	<ul> <li>Find out about and ide</li> </ul>	ntify the uses of everyday technolog	y and use information and communica	ation toys to support their learning.					

Year 1 Computing coverage									
Year 1	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2			
Aims						•			
	national curriculum for computing								
	understand and apply the fundame			, , , ,	•				
	analyse problems in computationa				ch problems				
	evaluate and apply information ted								
Computer	responsible, competent, confident	understand what algorithms	understand what algorithms	understand what algorithms					
Science		are; how they are implemented	are; how they are implemented	are; how they are implemented					
Science		as programs on digital devices;	as programs on digital devices;	as programs on digital devices;					
		and that programs execute by	and that programs execute by	and that programs execute by					
		following precise and	following precise and	following precise and					
		unambiguous instructions.	unambiguous instructions	unambiguous instructions					
			create and debug simple	create and debug simple					
			programs.	programs.					
			use logical reasoning to	use logical reasoning to					
			predict the behaviour of simple	predict the behaviour of simple					
			programs	programs					
Information		reate, organise, store, manipulate				reate, organise, store, manipulate			
Technology	and retrieve digital content	1			and retrieve digital content				
Digital	Use technology safely and				<ul> <li>recognise common uses of information technology beyond</li> </ul>				
Literacy	respectfully, keeping personal				school.				
	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.								

Year 2 Computing coverage								
	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2		
Aims								

- The national curriculum for computing aims to ensure that all pupils:
- can understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation
- can analyse problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems
- can evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems are responsible, competent, confident and creative users of information and communication technology.

Year 2	Online safety	Online safety	Online safety	Online safety	Online safety	Online safety
	Coding	Spreadsheets and	Effective searching	Creating Pictures	Making music	Presenting ideas
		questioning				
Computer	<ul> <li>understand what</li> </ul>	•use technology			<ul> <li>recognise common</li> </ul>	<ul><li>use technology</li></ul>
Science	algorithms are; how they	purposefully to create,	<ul> <li>recognise common</li> </ul>	<ul><li>use technology</li></ul>	uses of information	purposefully to
	are implemented as	organise, store,	uses of information	purposefully to create,	technology beyond	create, organise,
	programs on digital	manipulate and retrieve	technology beyond	organise, store,	school.	store, manipulate
	devices; and that programs	digital content.	school.	manipulate and retrieve		and retrieve
	execute by following	_		digital content.		digital content.
	precise and unambiguous	recognise common				
	instructions.	uses of information				
	and the soul delices of souls	technology beyond				
	<ul> <li>create and debug simple</li> </ul>	school.				
	programs.					
	use logical reasoning to					
	predict the behaviour of					
	simple programs					
Information			•use technology		•use technology	
Technology			purposefully to create,		purposefully to create,	
			organise, store,		organise, store,	
			manipulate and retrieve		manipulate and retrieve	
			digital content		digital content	
Digital Literacy		Use technology safely a	and respectfully, keeping pe	rsonal information private; i	dentify where to go for help	and support when
			t content or contact on the i			

Year 3 Computing coverage								
	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2		
Aims - The	Aims - The national curriculum for computing aims to ensure that all pupils:							

- can understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation
- can analyse problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems
- can evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems are responsible, competent, confident and creative users of information and communication technology.

Year 3	Online safety/Coding	Online safety/Touch typing	Email and online safety	Online safety/Branching	Online safety/Simulations	Online safety/Graphing
Computer Science	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	and Spreadsheets	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      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	databases		
Information Technology		• 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		select, use and combine a variet digital devices to design and creat accomplish given goals, including and information	e a range of programs, systems ar	nd content that
Digital Literacy				•use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.		

Year 4 Computing coverage								
	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2		
<ul><li>can t</li><li>can t</li><li>can</li></ul>	analyse problems in computational	ntal principles and concepts of complerms, and have repeated practical	experience of writing computer pro-	logic, algorithms and data represer grams in order to solve such probler problems are responsible, competer	ns	information and		
Year 4	Online Safety 4.1 – Coding	4.2 – Online Safety	Online Safety 4.3 - Spreadsheets	Online Safety 4.4 – Writing for different audiences	Online Safety 4.5 - Logo	Online Safety 4.6 - Animation		
Computer Science	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			<ul> <li>design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts</li> <li>use sequence, selection, and repetition in programs; work with variables and various forms of input and output</li> <li>use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs</li> </ul>			
Information Technology			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		• 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

Digital Literacy

contact

Year 5 Computing coverage								
	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2		
<ul><li>can</li><li>can</li><li>car</li></ul>	analyse problems in computational	ental principles and concepts of com terms, and have repeated practical	experience of writing comp	estraction, logic, algorithms and data represer puter programs in order to solve such probler to solve problems are responsible, competer	ns	information and		
Year 5	Online Safety Coding	Online safety Spreadsheet/	Online safety Databases	Online safety Game creator	Online safety 3D Modelling	Online safety Concept Maps		
Computer Science	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.		Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.		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.		
nformation Fechnology		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.			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.			
igital iteracy			Use technology safely, concerns about content.	respectfully and responsibly; recognise acce and contact.	•	I lentify a range of ways to repo		

Year 6 Computing coverage									
	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2			
<ul><li>can u</li><li>can a</li><li>can e</li></ul>	<ul> <li>can analyse problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems</li> <li>can evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems are responsible, competent, confident and creative users of information and communication</li> </ul>								
Year 6	ology.  Online Safety Coding	Online safety Spreadsheet/ Conducting research	Online safety Blogging	Online safety Text adventures	Online safety Networks	Online safety Quizzing			
Computer Science	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.	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.				
Information Technology		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 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.			
Digital Literacy		acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact	acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact						

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