

Year 1 and 2 - Computing Statutory Requirements

St Christopher Computing Intent

Our computer scientists will develop a broad, deep understanding of computing and how it links to their lives. Children will be given the opportunities to apply the fundamental principles and concepts of computer science. Children will develop analytical problem-solving skills and learn to evaluate and apply information technology in a variety of scenarios and situations. Through our curriculum, we will enable pupils to become responsible, competent, confident and creative users of information technology. Children will begin to make links to how they use technology outside of the classroom and through this they will begin to think about the benefits of using technology in their lives, making links to learning. Moreover, we will instil in the children the skills needed to use technology safely and respectfully, keeping personal information private, protecting their online identity though making sound choices as digital citizens at school and at home (supported further through cross-curricular links including Jigsaw).

National Curriculum Aims

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

Statutory Programmes of Study

KS1 children should be taught about:

Our children will:

What algorithms are; how they are	Creating and	Using logical	Using technology purposefully to create, organise,	Recognising	Using technol
implemented as programs on digital	debugging	reasoning to predict	store, manipulate and retrieve digital content	common uses of	information privat
devices; and that programs execute by	simple	the behaviour of		information	they have concern
following precise and unambiguous	programs	simple programs		technology	
instructions				beyond school	

Aspect	Year Group Essential Skills								
	Year 1	Ye							
Multimedia Text and Images	Children can use various tools, such as brushes, pens, eraser, stamps and shapes, and set the size, colour and shape. To use applications and devices in order to communicate ideas, work, messages and demonstrate control.	Children will save, retrieve and organise work by a							
Multimedia Sound & Motion		Children can use software to record sounds and ch							
Technology in our Lives	Begin to recognise ways that technology is used in the home and community and how the offline and online worlds are linked.	Children will recognise age-appropriate websites. footprint' and what that information might look lik							
Coding & Programming		Children will control the nature of events: repeat, give a set of instructions to follow and predict wha They will recognise vocabulary such as algorithm, i clockwise, anticlockwise, blocks, sequence, project							
Online Safety	Children will recognise which personal information they should keep safe from strangers and who know who to tell if someone online asks for personal information.	Children will continue to identify what is appropria understand they can seek help from an adult whe							

logy safely and respectfully, keeping personal te; identify where to go for help and support when is about content or contact on the internet or other online technologies.

ear 2

adding text and/or images to a blog.

nange those recorded sounds.

Children will understand they leave a 'digital ke.

loops, single events and add and delete features, at will happen.

instruction, order, debug, program, turn, left, right, t, repeat, repeat forever, invisible, grow, shrink.

ate and inappropriate behaviour on the internet and n they see something that is unexpected or worrying.



Year 3 and 4 - Computing Statutory Requirements

St Christopher Computing Intent

Our computer scientists will develop a broad, deep understanding of computing and how it links to their lives. Children will be given the opportunities to apply the fundamental principles and concepts of computer science. Children will develop analytical problem-solving skills and learn to evaluate and apply information technology in a variety of scenarios and situations. Through our curriculum, we will enable pupils to become responsible, competent, confident and creative users of information technology. Children will begin to make links to how they use technology outside of the classroom and through this they will begin to think about the benefits of using technology in their lives, making links to learning. Moreover, we will instil in the children the skills needed to use technology safely and respectfully, keeping personal information private, protecting their online identity though making sound choices as digital citizens at school and at home (supported further through cross-curricular links including Jigsaw).

National Curriculum Aims

Our children will:

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

Statutory Programmes of Study

KS2 children should	be taught	about:							
Designing, writing and		Using sequence,	Using logical	Understanding computer	Usin	g search	Selecting, using and comb		
debugging programs that		selection, and	reasoning to explain	networks including the internet; techn		nologies effectively,	software (including intern		
accomplish specific go	als,	repetition in	how some simple	how they can provide multiple	appr	eciate how results	range of digital devices to		
including controlling o	r	programs; work with	algorithms work and	services, such as the world wide	are s	elected and ranked,	create a range of program		
simulating physical sys	tems;	variables and various	to detect and correct	web; and the opportunities they	and	be discerning in	content that accomplish g		
solve problems by dec	omposing	forms of input and	errors in algorithms	offer for communication and	evalu	uating digital content	including collecting, analy		
them into smaller parts	5	output	and programs	collaboration			and presenting data and in		
Aspect				Year Gr	oup E	ssential Skills			
			Year 3			Y			
Multimedia Text and	Within Go	ogle Slides, combine text	and images effectively to	create a branching story-like structu	re.	Children will learn about formatting images and o			
Images						will edit and manipulate text and images within a			
Multimadia Cound Q	Within Co.	adla Slidas, rasard, craate	and adit counds incort y	videos and canturo still imagos		URLs into a document.			
Motion		ogle slides, record, create	e and edit sounds, insert v	ndeos and capture still images.		within each animation	o for playback		
Technology in our	Children w	vill use search tools to find	d and use an appropriate	website and content and use strategi	es to	Children will learn wh	at plagiarism is. They will rec		
Lives	improve results when searching online. To understand how email is used in practical daily scenarios personal information to divulge when creating c								
	and how to send emails responsibly ourselves.								
Coding &	To use Tur	To program a quiz in S	Scratch and use variables to						
Programming	specific ou	itcome e.g. drawing a spe	cified shape.						
Online Safety	To reflect	on their own digital footp	rint and behaviour online	e e.g. oversharing information, use of		To identify safe/risky	online behaviour by themsel		
	strong pas	swords.				means to be a respon	sible digital citizen.		
Handling Data									

pining a variety of	Using technology safely,
et services) on a	respectfully and responsibly;
o design and	recognise
ns, systems and	acceptable/unacceptable
jiven goals,	behaviour; identify a range of
/sing, evaluating	ways to report concerns about
nformation	content and contact.

ear 4

rganising content into an effective layout. Children document. Children will be understand how to insert

o for a purpose and plan an animation, moving items

cognise appropriate and inappropriate amounts of line accounts.

create an effect, e.g. repetition, if, when, loop.

lves and others. Children will understand what it



Year 5 and 6 – Computing Statutory Requirements

St Christopher Computing Intent

Our computer scientists will develop a broad, deep understanding of computing and how it links to their lives. Children will be given the opportunities to apply the fundamental principles and concepts of computer science. Children will develop analytical problem-solving skills and learn to evaluate and apply information technology in a variety of scenarios and situations. Through our curriculum, we will enable pupils to become responsible, competent, confident and creative users of information technology. Children will begin to make links to how they use technology outside of the classroom and through this they will begin to think about the benefits of using technology in their lives, making links to learning. Moreover, we will instil in the children the skills needed to use technology safely and respectfully, keeping personal information private, protecting their online identity though making sound choices as digital citizens at school and at home (supported further through cross-curricular links including Jigsaw).

National Curriculum Aims

Our children will:

Aspect

• understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation

- analyse problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems
- evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems
- he was enabled as a second and the second exacting users of information and example the technology

• be responsible, competent, confident and creative users of information and communication technology									
Statutory Programmes of Study									
KS2 children should be taught about:									
Designing, writing and	Using sequence,	Using logical reasoning	Understanding computer	Using search	Selecting, using and combining a variety of	Using technology safely,			
debugging programs that	selection, and	to explain how some	networks including the internet;	technologies effectively,	software (including internet services) on a	respectfully and responsibly;			
accomplish specific goals,	repetition in	simple algorithms	how they can provide multiple	appreciate how results	range of digital devices to design and	recognise			
including controlling or	programs; work with	work and to detect and	services, such as the world wide	are selected and ranked,	create a range of programs, systems and	behaviour: identify a range of			
simulating physical systems;	variables and	correct errors in	web; and the opportunities they	and be discerning in	content that accomplish given goals,	ways to report concerns about			
solve problems by decomposing	various forms of	algorithms and	offer for communication and	evaluating digital content	including collecting, analysing, evaluating	content and contact.			
them into smaller parts	input and output	programs	collaboration		and presenting data and information				

Year Group Essential Skills

	Year 5	Yea
Multimedia Text and Images	Children will create their own website, inserting pictures, text and hyperlinks. Children will use Google Sketchup to create and edit 3D models.	
Multimedia Sound & Motion	Audio files to be recorded, stored and then uploaded and embedded within websites children have designed.	Collect audio and use existing clips as part of a piece
Technology in our Lives	To use strategies to check the reliability of information/website and to understand the implication of copyright. Children will become aware and be able to identify altered images and how they are presented as reality using image manipulation.	Children will have an appreciation that the media pla boys.
Coding & Programming	To program an algorithm as a sequence of game instructions with actions and consequences e.g. lose a life, go back to start, change score.	Simulate animation by showing and hiding sprites, us commands.
Online Safety	Develop the ability to identify spam/phishing attempts to protect their own data. Protect their accounts using strong passwords. Be responsible in their use of the internet by citing sources.	Be aware of strategies for dealing with cyberbullying or not and the implications for the type and quantity services or with other users.
Handling Data		Children will choose the correct method to display da also learn how to check the accuracy of data and con Sheets.

ar 6

of digital media e.g. an animation using Scratch.

ay a powerful role in shaping ideas about girls and

ing costume changes and through repeating

To be able to identify whether a website is secure of personal data we share online with online

ata using software such as spreadsheets. Children npare data for a specific purpose e.g. using Google



Year 1-6 - Computing Statutory Requirements

St Christopher Computing Intent

Our computer scientists will develop a broad, deep understanding of computing and how it links to their lives. Children will be given the opportunities to apply the fundamental principles and concepts of computer science. Children will develop analytical problem-solving skills and learn to evaluate and apply information technology in a variety of scenarios and situations. Through our curriculum, we will enable pupils to become responsible, competent, confident and creative users of information technology. Children will begin to make links to how they use technology outside of the classroom and through this they will begin to think about the benefits of using technology in their lives, making links to learning. Moreover, we will instil in the children the skills needed to use technology safely and respectfully, keeping personal information private, protecting their online identity though making sound choices as digital citizens at school and at home (supported further through cross-curricular links including Jigsaw).

Statutory Programmes of Study

KS1 children should be taught about:

o											
What algorithms are; how they are Creating		and	Using logical	Using technology	sing technology Using te		echnology Recognising c		Using technology safely a	and respectfully, keeping	
implemented as programs on digital debuggin		ng	reasoning to	purposefully to create, pur		efully to create, uses of inform		nformation	personal information priv	vate; identify where to go for	
devices; and th	at programs execute	e by simple		predict the	organise, store, manipulate orga		e, store, manipulate	technolo	gy beyond	help and support when the the second s	hey have concerns about
following preci	se and unambiguou	s program	IS	behaviour of	and retrieve digital content	and retr	rieve digital content school			content or contact on the	e internet or other online
instructions				simple programs						technologies.	
KS2 children sho	ould be taught about:			I I							
Designing, wri	iting and	Using sequen	ce,	Using logical reasonir	ng Understanding compute	er	Using search Select		electing, using an	d combining a variety of	Using technology safely,
debugging pro	ograms that	selection, and	I	to explain how some	networks including the	internet;	technologies effect	tively, s	oftware (including	g internet services) on a	respectfully and responsibly;
accomplish sp	ecific goals,	repetition in		simple algorithms wo	rk how they can provide m	nultiple	appreciate how res	sults r	ange of digital de	vices to design and	recognise
including cont	trolling or	programs; wo	ork with	and to detect and	services, such as the wo	rld wide	are selected and ranked, create		reate a range of p	rograms, systems and	acceptable/unacceptable
simulating phy	ysical systems;	variables and	various correct errors in		web; and the opportuni	web; and the opportunities they		and be discerning in conte		nplish given goals,	ways to report concerns
solve problem	s by decomposing	forms of inpu	t and algorithms and		offer for communicatio	offer for communication and		evaluating digital including c		g, analysing, evaluating	about content and contact.
them into sma	aller parts	output		programs	collaboration		content	and presenting da		a and information	
Aspect					Yea	ar Group	Essential Skills				
	Year	1		Year 2 Year 3			Year	4		Year 5	Year 6
Multimedia	Children can use va	rious tools,	Childre	n will save, retrieve and	Within Google Slides, co	mbine	Children will learn a	bout	Children wil	l create their own website,	
Text and	such as brushes, pe	ns, eraser,	organise work by adding text		text and images effective	text and images effectively to		formatting images and organising		tures, text and hyperlinks.	
Images	stamps and shapes	and set the	e and/or images to a blog.		create a branching story-like		content into an effective layout.		it. Children wil	l use Google Sketchup to	
	size, colour and shape. To use				structure.	structure.		Children will edit and manipulate		edit 3D models.	
applications and devices in order							text and images within a				
messages and demonstrate							understand how to insort LIPLs				
control.							into a document.				
Multimedia		Childre	n can use software to	Within Google Slides, rec	Within Google Slides, record,		Children will use software to		o be recorded, stored and	Collect audio and use existing	
Sound &			record	sounds and change thos	se create and edit sounds, i	create and edit sounds, insert		capture photos/video for a		ed and embedded within	clips as part of a piece of digital
Motion			recorde	ed sounds.	videos and capture still in	videos and capture still images.		purpose and plan an animation,		ildren have designed.	media e.g. an animation using
						moving items within	n each			Scratch.	

				animation for playback.		
Technology in our Lives	Begin to recognise ways that technology is used in the home and community and how the offline and online worlds are linked.	Children will recognise age- appropriate websites. Children will understand they leave a 'digital footprint' and what that information might look like.	Children will use search tools to find and use an appropriate website and content and use strategies to improve results when searching online. To understand how email is used in practical daily scenarios and how to send emails responsibly ourselves.	Children will learn what plagiarism is. They will recognise appropriate and inappropriate amounts of personal information to divulge when creating online accounts.	To use strategies to check the reliability of information/website and to understand the implication of copyright. Children will become aware and be able to identify altered images and how they are presented as reality using image manipulation.	Children will have an appreciation that the media play a powerful role in shaping ideas about girls and boys.
Coding & Programming		Children will control the nature of events: repeat, loops, single events and add and delete features, give a set of instructions to follow and predict what will happen. They will recognise vocabulary such as algorithm, instruction, order, debug, program, turn, left, right, clockwise, anticlockwise, blocks, sequence, project, repeat, repeat forever, invisible, grow, shrink.	To use Turtle Logo and Scratch to write a program, putting commands into a sequence to achieve a specific outcome e.g. drawing a specified shape.	To program a quiz in Scratch and use variables to create an effect, e.g. repetition, if, when, loop.	To program an algorithm as a sequence of game instructions with actions and consequences e.g. lose a life, go back to start, change score.	Simulate animation by showing and hiding sprites, using costume changes and through repeating commands.
Online Safety	Children will recognise which personal information they should keep safe from strangers and who know who to tell if someone online asks for personal information.	Children will continue to identify what is appropriate and inappropriate behaviour on the internet and understand they can seek help from an adult when they see something that is unexpected or worrying.	To reflect on their own digital footprint and behaviour online e.g. oversharing information, use of strong passwords.	To identify safe/risky online behaviour by themselves and others. Children will understand what it means to be a responsible digital citizen.	Develop the ability to identify spam/phishing attempts to protect their own data. Protect their accounts using strong passwords. Be responsible in their use of the internet by citing sources.	Be aware of strategies for dealing with cyberbullying. To be able to identify whether a website is secure or not and the implications for the type and quantity of personal data we share online with online services or with other users.
Handling Data	Children can use various tools, such as brushes, pens, eraser, stamps and shapes, and set the size, colour and shape. To use applications and devices in order to communicate ideas, work, messages and demonstrate control.	Children will save, retrieve and organise work by adding text and/or images to a blog.				Children will choose the correct method to display data using software such as spreadsheets. Children also learn how to check the accuracy of data and compare data for a specific purpose e.g. using Google Sheets.
			St Christopher Cur	riculum		
Computing Themes	 Painting Word Processing Computer Skills [Online Safety] 	 Preparing for Turtle Logo Programming Turtle Logo & Scratch Using the Internet [Online Safety] 	 Programming Turtle Logo & Scratch Presentation Skills Internet Research & Communication [Online Safety] 	 Animation Scratch Questions & Quizzes Word Processing [Online Safety] 	 3D Modelling: Sketchup Internet Research & Website Design Scratch: Developing Games [Online Safety] 	 Spreadsheets Scratch: Animated Stories Film-making [Online Safety]