





An Daras Multi Academy Trust

Windmill Hill Academy

Curriculum Scheme of Learning - Computing and Online Safety

Integrated Curriculum Scheme of Learning - 2015	
Domain of Learning:	Computing
National Curriculum Subjects:	Computing
Domain Leader:	K. Clark
Agreed and Approved:	Sept 15
Next Leader Review:	Sept 16
Related Documents and Guidance:	National Curriculum 14
	Dimensions Skill Ladders 14
	WHA Non-Negotiable 14
	WHA Online Safety and Computing Policy 15
	WHA Computing Curriculum Statement 15
	WHA Child Protection and Safeguarding Policy 15

Windmill Hill Academy

Computing and Online Safety *Scheme of Learning – 2015*

Curriculum Statement

At Windmill Hill Academy we believe that computing is an essential part of the national curriculum. Computing is an integral part of modern day life and therefore provides a wealth of learning opportunities, explicitly within computing and also across other curriculum subjects. Through the study of computing, children are able to develop a wide range of fundamental skills, knowledge and understanding that they will need for the rest of their lives. Computers have become a part of everyday life. For most of us, technology is essential to our daily lives, at home and at work. 'Computational thinking' is a skill children must be taught in order to provide them with essential knowledge and skills that will enable them to participate effectively in the digital world.

The new national curriculum defines three clear aspects of the computing curriculum:

- 1. Computer Science (CS),
- 2. Information Technology (IT)
- 3. Digital Literacy (DL).

The aims of teaching Computing, as outlined in the National Curriculum are 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

In **Key Stage 1** the children will 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.
- to create and *debug* simple programs and use logical reasoning to predict the behaviour of simple programs.
- use a range of technology purposefully
- 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.

In **Key Stage 2** the children 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, use logical reasoning to explain how some simple *algorithms* work and correct errors in algorithms and programs.
- be taught to understand computer networks, including the internet, and the opportunities they offer for communication and collaboration.
- use search technologies effectively, learn to appreciate how results are selected and ranked, and be discerning in evaluating digital content.

- be taught to select, use and combine a variety of software (including internet services) on a range of digital devices to create a range of programs, systems and content that accomplish given goals.
- use technology safely, respectfully and responsibly; recognise acceptable /unacceptable behaviour; identify a range of ways to report concerns about content and contact.

Windmill Hill Academy

Computing and Online Safety *Scheme of Learning – 2015*

Year Group	Aut 1	Aut 2	Spr 1	Spr 2	Sum 1	Sum 2
1 – Unit Title	We are Treasure	We are TV Chefs –	We are Painters –	We are Collectors –	We are Storytellers –	We are Celebrating –
	Hunters – Using	Filming the steps of a	Illustrating an eBook	Finding images using	Producing a talking	Creating a card
	programmable toys	recipe		the web	book	digitally
A. Nat Curriculum 14	Computer Science	Digital Literacy	Information Technology	Digital Literacy	Information Technology	Information Technology
	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 Recognise common uses of information technology beyond school	Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions Use technology purposefully to create, organise, store, manipulate and retrieve digital content Recognise common uses of information technology beyond school 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.	Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions Use technology purposefully to create, organise, store, manipulate and retrieve digital content 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.	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.	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.

B. Academy Aims Link	Accelerating and sustaining children's progress towards higher achievement. Creating an enjoyable and creative curriculum that meets the learning needs of children. Ensuring achievement gaps for disadvantaged children are addressed. Skilled – to have learning skills for the modern world.	Ensuring achievement gaps for disadvantaged children are addressed. Creating an enjoyable and creative curriculum that meets the learning needs of children. Providing for children a safe, stimulating, caring but challenging learning environment. Skilled – to have learning skills for the modern world. Safe and Strong – to have a healthy body and mind.	Ensuring children are equipped for the next phase of learning. Creating an enjoyable and creative curriculum that meets the learning needs of children. Providing for children a safe, stimulating, caring but challenging learning environment. Skilled – to have learning skills for the modern world. Safe and Strong – to have a healthy body and mind.	Recognise common uses of information technology beyond school Ensuring children are equipped for the next phase of learning. Creating an enjoyable and creative curriculum that meets the learning needs of children. Providing for children a safe, stimulating, caring but challenging learning environment. Skilled – to have learning skills for the modern world. Safe and Strong – to have a healthy body and mind	Creating an enjoyable and creative curriculum that meets the learning needs of children. Accelerating and sustaining children's progress towards higher achievement. Providing for children a safe, stimulating, caring but challenging learning environment. Skilled – to have learning skills for the modern world. Safe and Strong – to have a healthy body and mind.	Creating an enjoyable and creative curriculum that meets the learning needs of children. Accelerating and sustaining children's progress towards higher achievement. Ensuring achievement gaps for disadvantaged children are addressed. Skilled – to have learning skills for the modern world.
C. Scheme Reference Rising Stars ' Switched on Computing'	Programming	Computational Thinking	Creativity	Computer Network	Communication and Collaboration	Productivity
D. Key Knowledge	Understand algorithms Create simple programs	Use technology purposefully to create digital content Recognise common uses of technology beyond school	Use technology purposefully to create digital content	Use technology safely and respectfully Recognise common uses of technology beyond school	Use technology purposefully to organise and store digital content	Use technology purposefully to organise and store digital content
E. Key Skills and	I can use a range of	I can use ICT to	I can talk about how to	I can talk about what	I can enter and retreive	I can enter and retrieve

Understanding Ref: The Saints Way: Church of England MAT	programmable toys, Beebot, cars etc I can create a simple program. I can describe an algorithm in simple terms. I can programme a simple programmable toy, e.g. Move the Beebot backwards and forwards.	generate, amend and record my work. I can use simple interactive computer programs.	keep my self safe when using technology I can use a paint package to create a picture on screen.	happens when I use ICT. I can talk about how ICT is used. I can talk about how to keep my self safe when using technology.	work. I can use ICT to generate, amend and record my work. I can enter words into a word processor. I can use the backspace and delete keys. I can use a wordbank to create a sentence	work. I can use ICT to generate, amend and record my work. I can enter words into a word processor. I can use the backspace and delete keys. I can use a word bank to create a sentence
F. Suggested programmes/hardwa re	Hardware: Bee Bots and other programmable toys. Software: Apps: Begot App for iPad	Hardware: iPads Software: Paint Movie maker Apps: I-Movie	Hardware: PCs/ iPads Software: Paint Word PowerPoint Apps: Software	Software : Internet PowerPoint	Software : PowerPoint	Software : PowerPoint
G. Cross Curricular Links (Core non-negotiable standards)	History/geography/art/ DT: using project as inspiration for ideas SMSC: Keeping safe	History/geography/art/ DT: using project as inspiration for ideas SMSC: Keeping safe	History/geography/art/ DT: using project as inspiration for ideas Geography: directional work SMSC: Keeping safe	SMSC: Keeping safe	English: typing story/non-fiction text on the computer SMSC: Keeping safe	English: typing story/non-fiction text on the computer SMSC: Keeping safe
H. Online Safety Taken from SWGfl Digital Literacy and Citizenship		Hectors World: CEOP	Online Safety: Safer Internet Day http://www.saferintern etday.org/web/	Online Safety: link to browsing the internet Going Places Safely ABC Searching	Going Places Safely Digi duck e-book	
I. Assessment Pathway	I can use a range of programmable toys, Beebot, cars etc. I can create a simple program. I can describe an algorithm in simple terms.	I can use ICT to generate, amend and record my work. I can use simple interactive computer programs. (Level 1/2)	I can talk about how to keep myself safe when using technology. I can use a paint package to create a picture on screen. (Level 1)	I can talk about what happens when I use ICT. I can talk about how ICT is used. I can talk about how to keep myself safe when using technology (Level 1)	I can enter and retrieve work. I can use ICT to generate, amend and record my work. I can enter words into a word processor.	I can enter and retrieve work. I can use ICT to generate, amend and record my work. I can enter words into a word processor. I can use the backspace and delete keys.

I can programme a simple programmable toy, e.g. Move the Beebot backwards and forwards. (Level 1)	I can use the backspace and delete keys. I can use a word bank to create a sentence (Level 2) I can use a word bank to create a sentence (Level 2)
---	--

Year Group	Aut 1	Aut 2	Spr 1	Spr 2	Sum 1	Sum 2
2 – Unit Title	We are Astronauts –	We are Game Testers	We are	We are Researchers –	We are Detectives –	We are Zoologists –
	Programming on	 Exploring how 	Photographers –	Researching a topic	Collecting clues	Collecting data about
	screen	computer games	Taking better photos			bugs
		work				
A. Nat Curriculum 14	Computer Science	Computer Science	Digital Literacy	Information Technology Digital Literacy	Information Technology Digital Literacy	Digital Literacy
	Understand what	Understand what	Use technology			Use technology
	algorithms are; how	algorithms are; how	purposefully to create,	Use technology	Use technology	purposefully to create,
	they are implemented	they are implemented	organise, store,	purposefully to create,	purposefully to create,	organise, store,
	as programs on digital devices; and that	as programs on digital devices; and that	manipulate and retrieve	organise, store,	organise, store, manipulate and retrieve	manipulate and retrieve
	programs execute by	programs execute by	digital content	manipulate and retrieve digital content	digital content	digital content
	following precise and	following precise and	Recognise common uses	uigitai content	digital content	Recognise common uses
	unambiguous	unambiguous	of technology beyond	Recognise common uses	Recognise common uses	of technology beyond
	instructions	instructions	school	of technology beyond	of technology beyond	school
				school	school	Use technology safely
	Create and debug	Use logical reasoning to	Use technology safely			and respectfully,
	simple programs	predict the behaviour of	and respectfully,	Use technology safely	Use technology safely	keeping personal
		simple programs.	keeping personal	and respectfully,	and respectfully,	information private;
	Use logical reasoning to predict the behaviour of	December common uses	information private;	keeping personal	keeping personal	identify where to go for
	simple programs.	Recognise common uses of technology beyond	identify where to go for help and support when	information private; identify where to go for	information private;	help and support when
	simple programs.	school	they have concerns about content or	help and support when they have concerns	identify where to go for help and support when	they have concerns about content or
		Use technology safely	contact on the internet	about content or	they have concerns	contact on the internet
		and respectfully, keep	or other online	contact on the internet	about content or	or other online
		personal information	technologies.	or other online	contact on the internet	technologies.
		private, know where to	, and the second	technologies.	or other online	
		go for help and support			technologies.	
		if they have concerns				
		about contact/content				
		on the internet or other				
		online technologies				
B. Academy Aims	Accelerating and	Accelerating and	Accelerating and	Ensuring children are	Ensuring children are	Accelerating and
Link	sustaining children's	sustaining children's	sustaining children's	equipped for the next	equipped for the next	sustaining children's
WHAADMAT	progress towards higher achievement.	progress towards higher achievement.	progress towards higher achievement.	phase of learning.	phase of learning.	progress towards higher achievement.
	Encuring achievement	Encuring achievement	Encuring achievement	Creating an enjoyable and creative curriculum	Creating an enjoyable and creative curriculum	Encuring achievement
	Ensuring achievement gaps for disadvantaged	Ensuring achievement gaps for disadvantaged	Ensuring achievement gaps for disadvantaged	that meets the learning	that meets the learning	Ensuring achievement gaps for disadvantaged
	gaps for disadvantaged	gaps for disadvalitaged	gaps for disadvantaged	that meets the learning	that meets the learning	gaps for disadvantaged

	children are addressed.	children are addressed.	children are addressed.	needs of children.	needs of children.	children are addressed.
	Creating an enjoyable and creative curriculum that meets the learning	Ensuring children are equipped for the next phase of learning.	Ensuring children are equipped for the next phase of learning.	Safe and Strong – to have a healthy body and mind.	Safe and Strong – to have a healthy body and mind.	Ensuring children are equipped for the next phase of learning.
	needs of children. Skilled – to have learning skills for the modern world. Safe and Strong – to have a healthy body and mind.	Creating an enjoyable and creative curriculum that meets the learning needs of children. Skilled – to have learning skills for the modern world.	Creating an enjoyable and creative curriculum that meets the learning needs of children. Safe and Strong – to have a healthy body and mind. Self-confident – to have high self-esteem and self-confidence. Socially aware – to be global citizens with good social skills. Skilled – to have learning skills for the modern world. Soaring Stars – to have a love of life in all its	Self-confident – to have high self-esteem and self-confidence. Socially aware – to be global citizens with good social skills. Skilled – to have learning skills for the modern world.	Self-confident – to have high self-esteem and self-confidence. Socially aware – to be global citizens with good social skills. Skilled – to have learning skills for the modern world. Soaring Stars – to have a love of life in all its forms	Creating an enjoyable and creative curriculum that meets the learning needs of children. Self-confident – to have high self-esteem and self-confidence. Socially aware – to be global citizens with good social skills. Skilled – to have learning skills for the modern world. Soaring Stars – to have a love of life in all its forms
C. Scheme Reference Rising Stars ' Switched on	Programming	Computational Thinking	forms Creativity	Computer Network	Communication and Collaboration	Productivity
Computing'						
D. Key Knowledge	Understand what algorithms are, how they are implemented on digital devices. Programs execute by following precise and unambiguous	Create and debug simple programs Programs execute by following precise and unambiguous instructions. Use logical reasoning to	Use technology purposefully to create digital content Recognise common uses of technology beyond school Use technology safely	Use technology safely and respectfully know where to go for help and support if they have concerns about contact/content on the internet or other online	Use technology safely and respectfully, keep personal information private, know where to go for help and support if they have concerns about contact/content	Recognise common uses of technology beyond school Use technology purposefully Recognise common uses of technology beyond

E. Key Skills and Understanding Ref: The Saints Way: Church of England MAT	instructions. Create and debug simple programs I can describe an algorithm in increasing detail. I can debug a simple program. I can predict the the behaviour of a simple program (Level 2)	I can debug a simple program. I can plan and give instructions to devices. I can use an increasing range of computer programs (Level 2)	I can talk about how to keep myself safe when using technology. I can use ICT to organise and present information. I can talk about the use of ICT in and out of school. I can talk about the steps to take if I am concerned or need help	I can use a search engine to locate information. I can use ICT to find information, e.g search a CD ROM using key words or a menu, using a search engine. (Level 3)	on the internet or other online technologies I can send, receive and reply to e-mails. I can select and use a range of software to collect and present data and information (Level 3)	I can select and use a range of software to collect and present data and information. I can use ICT to find information. I can enter data into a simple database (Level 3)
F. Suggested programmes/hardwa re	Lightbot APP Scratch Kodu	Scratch Screencast-o-matic	Picasa Web Pixlr.com	Internet PowerPoint	Email Excel	Excel Photo Gallery Google Maps Google earth
G. Cross Curricular Links (Core non-negotiable standards)	Geography: directional work SMSC: Keeping safe	SMSC: Keeping safe	History/geography/art/ DT: using project as inspiration for ideas Geography: directional work SMSC: Keeping safe	Geography/art/DT: using project as inspiration for ideas SMSC: Keeping safe	SMSC: Link to Internet Safety.	SMSC: Link to Internet Safety.
H. Online Safety Taken from SWGfl Digital Literacy and Citizenship	Online Safety What is real? (this will be followed up in the email unit)	Online Safety Lee and Kim: CEOP: Learning that Avatars are controlled by real people. Guy Fawkes Shares personal information over the internet and gets into trouble	Online Safety: Safer Internet Day http://www.saferintern etday.org/web/	Online Safety Link to browsing on the internet Hectors World (CEOP) Using Key words Finding and Identifying Appropriate online content Subject category searching	Online Safety Sending email My online Neighbourhood Netssmart E-Book about Webster Sharing Personal information	Online Safety Going Places Safely Smartie the Penguin
I. Assessment Pathway	I can describe an algorithm in increasing detail.	I can debug a simple program. I can plan and give instructions to devices.	I can talk about how to keep myself safe when using technology.	I can use ICT to generate, amend and record my work.	I can use ICT to organise and present information.	I can select and use a range of software to collect and present data and information.

I can debug a simple		I can use ICT to organise	I can enter words into a	I can talk about the use	
program.	I can use an increasing	and present	word processor.	of ICT in and out of	I can use ICT to find
	range of computer	information.	I can use the backspace	school.	information.
I can predict the	programs	I can talk about the use	and delete keys.		(Level 2)
behaviour of a simple	(Level2)	of ICT in and out of	I can use a wordbank to	I can talk about the	
program		school.	create a sentence.	steps to take if I am	I can enter data into a
(Level2)		(Level2)	(Level 2)	concerned or need help.	simple database.
				(Level 2)	(Level 3)
		I can talk about the	I can use ICT to save		
		steps to take if I am	information.	I can select and use a	
		concerned or need help.	I can use a search	range of software to	
		(Level 3)	engine to locate	collect and present data	
			information.	and information,	
			I can use ICT to find	(level 3)	
			information, e.g search		
			a CD ROM using key		
			words or a menu, using		
			a search engine.		
			(Level 3)		

Year Group	Aut 1	Aut 2	Spr 1	Spr 2	Sum 1	Sum 2
3 – Unit Title	We are Programmers	We are Bug Fixers –	We are Presenters –	We are Vloggers –	We are Communicators	We are Opinion
	 Programming an 	Finding and	Videoing	Making and sharing a	 Communicating safely 	Pollsters –
	animation	correcting bugs in	performance	short screencast	on the internet	collecting and
		programs		presentation		analysing data
A. Nat Curriculum 14	Computer Science	Computer Science	Digital Literacy	Information technology	Digital Literacy	Information technology
	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 in programs; work with variables and various forms of input and output Use logical reasoning to detect and correct errors in algorithms and programs Select, use and combine a variety of software to design and create content that accomplish(es) given goals, including presenting information	Debug programs that accomplish specific goals 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	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 Work with variables and various forms of input and output Use technology safely, respectfully and responsibly	Understand computer networks including the internet; how they can provide multiple services, such as the world wide web. 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 content that accomplish given goals, including collecting, analysing, evaluating and presenting information. Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact	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 Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.	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 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
B. Academy Aims	Accelerating and	Accelerating and	Accelerating and	Accelerating and	Accelerating and sustaining	Accelerating and

Link	sustaining children's	sustaining children's	sustaining children's	sustaining children's	children's progress towards	sustaining children's
• WHA	progress towards higher	progress towards	progress towards	progress towards higher	higher achievement.	progress towards
 ADMAT 	achievement.	higher achievement.	higher achievement.	achievement.		higher achievement.
					Ensuring achievement gaps	
	Ensuring achievement	Ensuring achievement	Ensuring achievement	Ensuring achievement	for disadvantaged children	Ensuring
	gaps for disadvantaged	gaps for disadvantaged	gaps for disadvantaged	gaps for disadvantaged	are addressed.	achievement gaps
	children are addressed.	children are addressed.	children are addressed.	children are addressed.		for disadvantaged
					Ensuring children are	children are
	Ensuring children are	Ensuring children are	Ensuring children are	Ensuring children are	equipped for the next	addressed.
	equipped for the next	phase of learning.				
	phase of learning.	phase of learning.	phase of learning.	phase of learning.		Ensuring children are
					Creating an enjoyable and	equipped for the
	Creating an enjoyable	Creating an enjoyable	Creating an enjoyable	Creating an enjoyable	creative curriculum that	next phase of
	and creative curriculum	and creative curriculum	and creative curriculum	and creative curriculum	meets the learning needs	learning.
	that meets the learning	of children.				
	needs of children.	needs of children.	needs of children.	needs of children.	Providing for children a	Creating an
	Draviding for shildren a	Draviding for shildren a	Draviding for shildren a	Draviding for children	safe, stimulating, caring but	enjoyable and
	Providing for children a safe, stimulating, caring	challenging learning	creative curriculum			
	but challenging learning	but challenging learning	but challenging learning	but challenging learning	environment.	that meets the
	environment.	environment.	environment.	environment.	environment.	learning needs of
	environment.	environment.	environment.	environment.	Safe and Strong – to have a	children.
	Safe and Strong – to	Safe and Strong – to	Safe and Strong – to	Safe and Strong – to have	healthy body and mind.	Providing for
	have a healthy body and	have a healthy body	have a healthy body	a healthy body and mind.	nearthy body and mind.	children a safe,
	mind.	and mind.	and mind.	a meaning sour and minut	Self-confident – to have	stimulating, caring
				Self-confident – to have	high self-esteem and self-	but challenging
	Self-confident – to have	Self-confident – to have	Self-confident – to have	high self-esteem and self-	confidence.	learning
	high self-esteem and	high self-esteem and	high self-esteem and	confidence.		environment.
	self-confidence.	self-confidence.	self-confidence.		Socially aware – to be	
				Socially aware – to be	global citizens with good	Safe and Strong – to
	Socially aware – to be	Socially aware – to be	Socially aware – to be	global citizens with good	social skills.	have a healthy body
	global citizens with good	global citizens with	global citizens with	social skills.		and mind.
	social skills.	good social skills.	good social skills.		Skilled – to have learning	
				Skilled – to have learning	skills for the modern world.	Self-confident – to
	Skilled – to have learning	Skilled – to have	Skilled – to have	skills for the modern		have high self-
	skills for the modern	learning skills for the	learning skills for the	world.	Soaring Stars – to have a	esteem and self-
	world.	modern world.	modern world.		love of life in all its forms.	confidence.
				Soaring Stars – to have a		
	Soaring Stars – to have a	Soaring Stars – to have	Soaring Stars – to have	love of life in all its forms.		Socially aware – to
	love of life in all its	a love of life in all its	a love of life in all its			be global citizens
						with good social

	forms.	forms.	forms.			skills.
						Skilled – to have learning skills for the modern world.
						Soaring Stars – to have a love of life in all its forms.
C. Scheme Reference Rising Stars ' Switched on Computing'	Programming	Computational Thinking	Creativity	Computer Network	Communication and Collaboration	Productivity
D. Key Knowledge	Use sequence, selection and repetition in programs	Design, write and debug programs	Select, use and combine a variety of software (including internet services) on a range of digital devices	Use search technologies effectively	Understand computer networks including the internet Use technology safely, respectfully and responsibly	Select, use and combine a variety of software to design and create a range of programs, systems and content
E. Key Skills and Understanding Ref: The Saints Way: Church of England MAT	I can describe an algorithm in increasing detail. I can debug a simple program. I can predict the behaviour of a simple program. (Level 2) I can describe how an algorithm works. I can design, write and debug a program linked to specific goals. I can work with programs that involve sequence, selection, and repetition. I can describe ways of ensuring safe use of technology	I can talk about how to keep my-self safe when using technology (Level 2) I can debug a simple program. (Level 2) I can design, write and debug a program linked to specific goals (Level 3)	I can talk about the use of ICT in and out of school. (Level 2) I can talk about and give reasons for the use of ICT in the wider world (Level 3) I can talk about the steps to take if I am concerned or need help. (Level 2)	I can use search technology effectively and safely.	I can talk about the steps to take if I am concerned or need help. (Level 2) I can use ICT to share and exchange ideas. I can talk about and give reasons for the use of ICT in the wider world. I can send, receive and reply to e-mails. (Level 3)	I can enter data into a simple database. I can use a spreadsheet to produce a table of data. (Level 3)

	(Level 3)					
F. Suggested	Software:	Software:	Software:	Software:	Software:	Software:
programmes/hardwa	Scratch	Scratch	Movie Maker	Access to school network	Email	Excel
re	PowerPoint	PowerPoint	Apps:	and command prompt	Video Conf	Word
	Apps:	Apps:	I-Movie		Presentation software	Apps:
	Hopscotch				Apps: FaceTime?	Safari
G. Cross Curricular Links (Core non-negotiable standards)		*English: programming emphasises a precise use of language and, in the traditional, text based programming languages, the importance of spelling and punctuation *Maths; develops skills in logical reasoning and problem solving and is applied right across the unit of study * Science; the unit links to woking scientifically; in particular, making systematic and careful observations, and using results to draw conclusions and suggest improvements	*PE; making a video provides opportunities to develop an understanding of how to improve in different physical activities. *English; this product develops skills in spoken language, particularly presenting and participating in presentations and performances. *Maths – evaluating performance where distance is used links to measure, where scores are used this links to number English: using ICT programs as a stimulus	*D&T complex systems such as the internet and computer networks illustrate engineering ideas Geography: follow geographical routes taken by data packets. English: using ICT programs as a stimulus – Fantastc Mr Fox		English: using ICT programs as a stimulus Maths – apply work on statistics on interpreting and presenting data MSMC – choose topics to investigate that concern the broader aspects of school life, such as school playtime, food, homework.
H. Online Safety Taken from SWGfl Digital Literacy and Citizenship	Online Safety Keep it private	English: using ICT programs as a stimulus Online Safety Anti-bullying week: Cyberbullying: Screen out the Mean Kidscape advise Beatbullying resources	Using film in Stories from other cultures Online Safety: Safer Internet Day Keep it Private: ROAR poster: Online life FLAT STANLEY: sharing photos and videos Online Safety http://www.saferinternet day.org/web/	Online Safety My online community	Online Safety: Communicating safely on the internet Finding and Identifying Appropriate online content Subject category searching Writing good emails Sharing Personal Information Show on line respect	Online Safety

					Cyber cafe	
I. Assessment Pathway	I can describe an algorithm in increasing detail. I can debug a simple program. I can predict the behaviour of a simple program. (Level 2) I can describe how an algorithm works. I can design, write and debug a program linked to specific goals. I can work with programs that involve sequence, selection, and repetition. I can describe ways of ensuring safe use of technology (Level 3)	I can talk about how to keep my-self safe when using technology (Level 2) I can debug a simple program. (Level 2) I can design, write and debug a program linked to specific goals (Level 3)	I can talk about how to keep my-self safe when using technology (Level 2) I can talk about the use of ICT in and out of school. (Level 2) I can use ICT to share and exchange ideas. I can talk about and give reasons for the use of ICT in the wider world (Level 3)	I can use search technology effectively and safely. I can describe ways of ensuring safe use of technology. (Level 3)	I can use ICT to share and exchange ideas. I can talk about and give reasons for the use of ICT in the wider world. I can send, receive and reply to e-mails. (Level 3)	I can enter data into a simple database. I can use a spreadsheet to produce a table of data. (Level 3)

Year Group	Aut 1	Aut 2	Spr 1	Spr 2	Sum 1	Sum 2
4 – Unit Title	We are Software	We are Toy	We are Musicians –	We are HTML Editors –	We are Co-authors –	We are
	Developers –	Designers –	Producing digital music	Editing and writing	Producing a wiki	Meteorologists –
	Developing a	Prototyping and		HTML		Presenting the
	simple educational	interactive toy				weather
	game	•				
A. Nat Curriculum 14	Computer Science	Computer Science	Information technology	Digital Literacy	Digital Literacy	Information technology
	Design, write and	Design, write and	Use sequence, selection,	Understand computer	Solve problems by	
	debug programs that	debug programs that	and repetition in programs;	networks including the	decomposing them into	Work with variables
	accomplish specific	accomplish specific	work with variables and	internet; how they can	smaller parts	and various forms of
	goals	goals, including	various forms of input and	provide multiple services,		input and output
		controlling or	output	such as the world wide	Understand computer	
	Use sequence,	simulating physical		web; and the opportunities	networks including the	Use logical reasoning
	selection, and	systems	Understand computer	they offer for	internet; how they can	to explain how some
	repetition in programs; work with	Use sequence,	networks including the internet; how they can	communication and collaboration	provide multiple services, such as the world wide	simple algorithms work and to detect
	variables and various	selection, and	provide multiple services,	Collaboration	web; and the opportunities	and correct errors in
	forms of input and	repetition in	such as the world wide web;	Use technology safely,	they offer for	algorithms and
	output	programs; work with	and the opportunities they	respectfully and	communication and	programs
		variables and various	offer for communication	responsibly; recognise	collaboration	p. 58. as
	Use logical reasoning	forms of input and	and collaboration	acceptable/unacceptable		Use search
	to explain how some	output		behaviour; identify a range	Use search technologies	technologies
	simple algorithms		Be discerning in evaluating	of ways to report concerns	effectively	effectively,
	work and to detect	Use logical reasoning	digital content	about content and contact.		appreciate how
	and correct errors in	to explain how some			Use a variety of software	results are selected
	algorithms and	simple algorithms	Select, use and combine a	Use technology safely,	(including internet	and ranked, and be
	programs	work and to detect	variety of software	respectfully and	services) on a range of	discerning in
		and correct errors in	(including internet services)	responsibly; recognise	digital devices to create	evaluating digital
		algorithms and	on a range of digital devices	acceptable/unacceptable	content including	content
		programs	to design and create a range	behaviour; identify a range	presenting information	Calast was and
			of programs, systems and content that accomplish	of ways to report concerns about content and contact.	Use technology safely,	Select, use and combine a variety of
			given goals, including	about content and contact.	respectfully and	software (including
			collecting, analysing,		respectfully and responsibly; recognise	internet services) on
			evaluating and presenting		acceptable/unacceptable	a range of digital
			data and information		behaviour; identify a range	devices to design
					of ways to report concerns	and create a range of
					about content and contact.	programs, systems
			Use technology safely,			and content that
			respectfully and			accomplish given

			responsibly; recognise acceptable/unacceptable behaviour			goals, including collecting, analysing, evaluating and presenting data and information
B. Academy Aims Link	Accelerating and sustaining children's progress towards higher achievement. Ensuring achievement gaps for disadvantaged	Accelerating and sustaining children's progress towards higher achievement. Ensuring achievement gaps for disadvantaged	Accelerating and sustaining children's progress towards higher achievement. Ensuring achievement gaps for disadvantaged children are addressed.	Accelerating and sustaining children's progress towards higher achievement. Ensuring achievement gaps for disadvantaged children are addressed.	Accelerating and sustaining children's progress towards higher achievement. Ensuring achievement gaps for disadvantaged children are addressed.	Accelerating and sustaining children's progress towards higher achievement. Ensuring achievement gaps for disadvantaged
	children are addressed. Ensuring children are	children are addressed. Ensuring children are	Ensuring children are equipped for the next phase of learning.	Ensuring children are equipped for the next phase of learning.	Ensuring children are equipped for the next phase of learning.	children are addressed. Ensuring children are
	equipped for the next phase of learning.	equipped for the next phase of learning. Creating an enjoyable	Creating an enjoyable and creative curriculum that meets the learning needs of children.	Creating an enjoyable and creative curriculum that meets the learning needs of children.	Creating an enjoyable and creative curriculum that meets the learning needs of children.	equipped for the next phase of learning.
	Creating an enjoyable and creative curriculum that meets the learning needs of children.	and creative curriculum that meets the learning needs of children. Providing for children	Providing for children a safe, stimulating, caring but challenging learning environment.	Providing for children a safe, stimulating, caring but challenging learning environment.	Providing for children a safe, stimulating, caring but challenging learning environment.	Creating an enjoyable and creative curriculum that meets the learning needs of children.
	Providing for children a safe, stimulating, caring but challenging learning	a safe, stimulating, caring but challenging learning environment. Safe and Strong – to have a healthy body	Safe and Strong – to have a healthy body and mind. Self-confident – to have high self-esteem and self-confidence.	Safe and Strong – to have a healthy body and mind. Self-confident – to have high self-esteem and self-confidence.	Safe and Strong – to have a healthy body and mind. Self-confident – to have high self-esteem and self-confidence.	Providing for children a safe, stimulating, caring but challenging learning
	environment. Safe and Strong – to have a healthy body and mind.	and mind. Self-confident – to have high self-esteem and self-confidence.	Socially aware – to be global citizens with good social skills. Skilled – to have learning	Socially aware – to be global citizens with good social skills. Skilled – to have learning	Socially aware – to be global citizens with good social skills. Skilled – to have learning	environment. Safe and Strong – to have a healthy body and mind.
	Self-confident – to have high self- esteem and self-	Socially aware – to be global citizens with	skills for the modern world. Soaring Stars – to have a	skills for the modern world. Soaring Stars – to have a	skills for the modern world. Soaring Stars – to have a	Self-confident – to have high self- esteem and self-

	confidence.	good social skills.	love of life in all its forms.	love of life in all its forms.	love of life in all its forms.	confidence.
	Socially aware – to be global citizens with good social skills. Skilled – to have learning skills for the modern world. Soaring Stars – to have a love of life in all its forms.	Skilled – to have learning skills for the modern world. Soaring Stars – to have a love of life in all its forms.				Socially aware – to be global citizens with good social skills. Skilled – to have learning skills for the modern world. Soaring Stars – to have a love of life in all its forms.
C. Scheme Reference	Programming	Computational	Creativity	Computer Network	Communication and	Productivity
Rising Stars '		Thinking			Collaboration	
Switched on						
Computing'						
D. Key Knowledge	Work with variables and various forms of input and output	Use sequence, selection and repetition in programs	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	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 a variety of software (including internet services) to create content including presenting information	Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content

E. Key Skills and Understanding Ref: The Saints Way: Church of England MAT	I can describe how an algorithm works. I can design, write and debug a program linked to specific goals. I can work with programs that involve sequence, selection, and repetition. I can describe ways of ensuring safe use of technology (Level 3) I can use logical reasoning to explain how algorithms work. I can design, write and debug a program that includes controlling or simulating physical systems. I can work with programs that involve variables. I can describe ways of reporting	I can describe how an algorithm works. I can design, write and debug a program linked to specific goals. I can work with programs that involve sequence, selection, and repetition. I can describe ways of ensuring safe use of technology (Level 3)	I can use ICT to save information. I can use a search engine to locate information. I can use ICT to find information, e.g search a CD ROM using key words or a menu, using a search engine. I can select and use a range of software to collect and present data and information, e.g. Word, Publisher. (Level 3)	I can use ICT to share and exchange ideas. I can talk about and give reasons for the use of ICT in the wider world. I can send, receive and reply to e-mails. I can use search technology effectively and safely. (Level 3)	I can use ICT to save information. I can use a search engine to locate information. I can use ICT to find information, e.g search a CD ROM using key words or a menu, using a search engine. I can select and use a range of software to collect and present data and information, e.g. Word, Publisher. (Level 3)	I can use a graphics package to create a picture. I can combine graphics with text. I can program a sequence of instructions to control a device. I can use ICT to gather physical data. I can enter data into a simple database. I can use a spreadsheet to produce a table of data. (Level 3)
	I can describe ways					
F. Suggested programmes/hardwa re	Software: Scratch Snap! Apps: a.l.e.x	Software: Scratch Apps:	Software: Audacity Apps: Garage band	Software: FireFox Brackets Apps: Safari	Software: Learning Platform Apps: Safari Wikpedia	Software: Excel PowerPoints Apps:
G. Cross Curricular	Literacy – writing	Literacy – performing	Literacy – publishing poetry	Literacy – persuasive	Literacy / History –	Literacy –

Links (Core non-negotiable standards)	and publishing instructions Maths – designing Scratch games that practise times tables History – researching the Anglo-Saxons	and recording playscripts / using MSWord to write their scripts Maths – Interactive software to practice mental maths Science – creating tables to record results of experiments	and creating story sound tracks Maths – creating repeating patterns (including through music) Music – performing, recording and evaluating story sound tracks	healthy eating posters Geography – google earth / maps and locations	Egyptian research and wiki reports	PowerPoint presentation linked to explanation texts – linked to Science / Geography – Rivers and the Water Cycle Maths – weather data handling / excel data spread sheets
H. Online Safety Taken from SWGfl Digital Literacy and Citizenship	Online Safety	Online Safety Anti-bullying week: Cyberbullying Screen out the Mean Cyberbullying Kidscape advise Beat bullying resources Positive online communications Keep It Private: ROAR Educate Poster: online identity and strong passwords	Online Safety: Safer Internet Day http://www.saferinternetda y.org/web/	Online Safety Using Keywords: Finding and Identifying Appropriate Content ROAR Educate: Searching on line.	Online Safety: My Online Community ROAR poster: Online life FLAT STANLEY: sharing photos and videos Follow the Digital Trail ROAR Educate poster: privacy and posting Show on line respect Cyber cafe	Online Safety Things for Sale: Media Smart Digital Adwise (Literacy link to adverts)
I. Assessment Pathway	I can describe how an algorithm works. I can design, write and debug a program linked to specific goals. I can work with programs that involve sequence, selection, and repetition. I can describe ways of ensuring safe use of technology	I can use logical reasoning to explain how algorithms work. I can design, write and debug a program that includes controlling or simulating physical systems. I can work with programs that involve variables. I can describe ways of reporting concerns and inappropriate behaviour.	I can use ICT to save information. I can use a search engine to locate information. I can use ICT to find information, e.g search a CD ROM using key words or a menu, using a search engine. I can select and use a range of software to collect and present data and information, e.g. Word, Publisher. (Level 3)	I can use ICT to share and exchange ideas. I can talk about and give reasons for the use of ICT in the wider world. I can send, receive and reply to e-mails. I can use search technology effectively and safely. (Level 3)	I can use 'and' and 'or' when searching the Internet. I can use ICT to interpret findings and answer questions, e.g. Data Loggers. I can use ICT to save information. I can select, use and combine a range of software to collect, evaluate and present data and information, e.g. Word, Publisher Excel. (Level 4)	I can use a graphics package to create a picture. I can combine graphics with text. I can program a sequence of instructions to control a device. I can use ICT to gather physical data. I can enter data into a simple database. I can use a spreadsheet to

(Level 3)	(Level 4)		produce a table of
			data.
			(Level 3)

Year Group	Aut 1	Aut 2	Spr 1	Spr 2	Sum 1	Sum 2
5 – Unit Title	We are Game	We are Cryptographers	We are Artists – Fusing	We are Web Designers –	We are Bloggers -	We are Architects –
	Developers –	Cracking codes	geometry and art	Creating a website about	Sharing experiences and	Creating a virtual space
	Developing an			cyber safety	opinions	
	interactive game					
A. Nat Curriculum 14	Computer Science	Computer Science	Information technology Computer Science	Digital Literacy	Digital Literacy	Digital Literacy
	Design, write and	Use logical reasoning to		Understand computer	Understand computer	Use search technologies
	debug programs that	explain how some	Use sequence, selection,	networks including the	networks including the	effectively, appreciate
	accomplish specific	simple algorithms work	and repetition in	internet; how they can	internet; how they can	how results are selected
	goals, including	and to detect and	programs; work with	provide multiple services,	provide multiple	and ranked, and be
	controlling or	correct errors in	variables and various	such as the world wide	services, such as the	discerning in evaluating
	simulating physical	algorithms and	forms of input and output	web; and the opportunities	world wide web; and	digital content
	systems; solve	programs		they offer for	the opportunities they	Select, use and combine
	problems by		Use logical reasoning to	communication and	offer for	a variety of software
	decomposing them	Understand computer	explain how some simple	collaboration	communication and	(including internet
	into smaller parts	networks including the	algorithms work and to		collaboration	services) on a range of
		internet; how they can	detect and correct errors	Use search technologies		digital devices to design
	Use sequence,	provide multiple	in algorithms and	effectively, appreciate how	Select, use and combine	and create a range of
	selection, and	services, such as the	programs	results are selected and	a variety of software	programs, systems and
	repetition in	world wide web; and		ranked, and be discerning	(including internet	content that accomplish
	programs; work with	the opportunities they	Select, use and combine a	in evaluating digital	services) on a range of	given goals, including
	variables and various	offer for	variety of software	content	digital devices to design	collecting, analysing,
	forms of input and	communication and	(including internet	Select, use and combine a	and create a range of	evaluating and
	output	collaboration	services) on a range of digital devices to design	variety of software	programs, systems and content that accomplish	presenting data and information
	Use logical reasoning	Use technology safely,	and create a range of	(including internet services)	given goals, including	information
	to explain how some	respectfully and	programs, systems and	on a range of digital	collecting, analysing,	
	simple algorithms	responsibly; recognise	content that accomplish	devices to design and create a range of programs,	evaluating and	
	work and to detect	acceptable/unacceptabl	given goals, including	systems and content that	presenting data and	
	and correct errors in	e behaviour; identify a	collecting, analysing,	accomplish given goals,	information	
	algorithms/	range of ways to report	evaluating and presenting	including collecting,		
	programs	concerns about content	data and information	analysing, evaluating and	Use technology safely,	
		and contact.		presenting data and	respectfully and	
	Select, use and			information	responsibly; recognise	
	combine a variety of			oduoii	acceptable/unacceptabl	

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.	e behaviour; identify a range of ways to report concerns about content and contact. Be discerning in evaluating digital content	
Accelerating and sustaining children's progress towards higher achievement.	Accelerating and sustaining children's progress towards higher achievement.	Accelerating and sustaining children's progress towards higher achievement.	Accelerating and sustaining children's progress towards higher achievement.	Accelerating and sustaining children's progress towards higher achievement.	Accelerating and sustaining children's progress towards higher achievement.
Ensuring achievement gaps	Ensuring achievement gaps for disadvantaged	Ensuring achievement gaps for disadvantaged	Ensuring achievement gaps for disadvantaged children	Ensuring achievement gaps for disadvantaged	Ensuring achievement gaps for disadvantaged

B. Academy	Aims
Link	

- WHA
- ADMAT

for disadvantaged children are addressed.

Ensuring children are equipped for the next phase of learning.

Creating an enjoyable and creative curriculum that meets the learning needs of children.

Providing for children a safe, stimulating, caring but challenging learning environment.

Safe and Strong – to have a healthy body and mind.

Self-confident – to have high selfesteem and selfconfidence.

Socially aware – to be global citizens with good social skills.

Skilled – to have learning skills for the modern world.

Soaring Stars – to have a love of life in

children are addressed.

Ensuring children are equipped for the next phase of learning.

Creating an enjoyable and creative curriculum that meets the learning needs of children.

Providing for children a safe, stimulating, caring but challenging learning environment.

Safe and Strong – to have a healthy body and mind.

Self-confident – to have high self-esteem and self-confidence.

Socially aware – to be global citizens with good social skills.

Skilled – to have learning skills for the modern world.

Soaring Stars – to have a love of life in all its forms.

children are addressed.

Ensuring children are equipped for the next phase of learning.

Creating an enjoyable and creative curriculum that meets the learning needs of children.

Providing for children a safe, stimulating, caring but challenging learning environment.

Safe and Strong – to have a healthy body and mind.

Self-confident – to have high self-esteem and selfconfidence.

Socially aware – to be global citizens with good social skills.

Skilled – to have learning skills for the modern world.

Soaring Stars – to have a love of life in all its forms.

are addressed.

Ensuring children are equipped for the next phase of learning.

Creating an enjoyable and creative curriculum that meets the learning needs of children.

Providing for children a safe, stimulating, caring but challenging learning environment.

Safe and Strong – to have a healthy body and mind.

Self-confident – to have high self-esteem and selfconfidence.

Socially aware – to be global citizens with good social skills.

Skilled – to have learning skills for the modern world.

Soaring Stars – to have a love of life in all its forms.

children are addressed.

Ensuring children are equipped for the next phase of learning.

Creating an enjoyable and creative curriculum that meets the learning needs of children.

Providing for children a safe, stimulating, caring but challenging learning environment.

Safe and Strong – to have a healthy body and mind.

Self-confident – to have high self-esteem and self-confidence.

Socially aware – to be global citizens with good social skills.

Skilled – to have learning skills for the modern world.

Soaring Stars – to have a love of life in all its forms.

children are addressed.

Ensuring children are equipped for the next phase of learning.

Creating an enjoyable and creative curriculum that meets the learning needs of children.

Providing for children a safe, stimulating, caring but challenging learning environment.

Safe and Strong – to have a healthy body and mind.

Self-confident – to have high self-esteem and self-confidence.

Socially aware – to be global citizens with good social skills.

Skilled – to have learning skills for the modern world.

Soaring Stars – to have a love of life in all its forms.

WHA Curriculum SoL 2015 24

C. Scheme Reference Rising Stars ' Switched on Computing'	Programming	Computational Thinking	Creativity	Computer Networks	Communication and Collaboration	Productivity
D. Key Knowledge	Design, write and debug programs that accomplish specific goals	Use logical reasoning to explain how some simple algorithms work	Use sequence, selection, and repetition in programs	Understand computer networks including the internet Select, use and combine a variety of software to design and create a range of programs	Understand computer networks including the internet Select, use and combine a variety of software to design and create a range of content that accomplishes given goals	Use search technologies effectively Select, use and combine a variety of software (including internet services) to design and create a range of programs, systems and content that accomplish given goals

E. Key Skills and Understanding Ref: The Saints Way: Church of England MAT	I can use logical reasoning to explain how algorithms work. I can design, write and debug a program that includes controlling or simulating physical systems. I can work with programs that involve variables. I can describe ways of reporting concerns and inappropriate behaviour. (Level 4)	I can use logical reasoning to explain how algorithms work. I can design, write and debug a program that includes controlling or simulating physical systems. I can work with programs that involve variables. I can describe ways of reporting concerns and inappropriate behaviour. (Level 4)	I can use logical reasoning to explain how algorithms work. I can design, write and debug a program that includes controlling or simulating physical systems. I can work with programs that involve variables. I can describe ways of reporting concerns and inappropriate behaviour. (Level 4)	I can use ICT to save information. I can use 'and' and 'or' when searching the Internet. I can exchange information with others in a range of different ways, e.g. e-mail, blog, Skype I can send text and images as attachments. I can describe the way in which search results are selected and ranked. (Level 4)	I can exchange information with others in a range of different ways, e.g. e-mail, blog, Skype I can send text and images as attachments. I can describe the way in which search results are selected and ranked. (Level 4)	I can use ICT to interpret findings and answer questions, e.g. Data Loggers. I can use a graphics package to develop and refine an image. I can use a multimedia package to produce a set of linked pages that include images, sound and text. I can choose an appropriate sensor to monitor environmental conditions and changes. I can gather and enter data into a datahandling package. I can use a spreadsheet to carry out calculations. I can select, use and combine a range of software to collect, evaluate and present data and information, e.g. Word, Publisher Excel. (Level 4)
F. Cross Curricular Links (Core non-negotiable standards)	Art – pupils improve their art and design skills by creating artwork for games Music – children record sound or compose music for games	Maths – encryption and decryption use mathematical function. Frequency tables play a role in cracking substitution ciphers PSHE – Privacy, safety and identity DT and science – children may make	Art and design – children learn about famous artists Maths – Knowledge of angles at a point to total 360°	English – apply skills in summarising texts and knowledge of GAPs History – conducting an enquiry and consider the authority and potential bias of source documents	English – plan, draft and evaluate their own and others writing Topic – Use blog to create a journal entry of a Shang character	Maths – apply skills of measurement and geometry Science – properties and changes of materials – hardness and transparency

		simple telegraph circuits				
G. Suggested programmes/hardwa re	Software: Scratch Kodu Coda Bal APP	Software: Scratch	Software: Scratch	Software: Google	Software: Blogger Learning Platform	Software: Screencast-o-mat
H. Online Safety Taken from SWGfl Digital Literacy and Citizenship	Online Safety	Online Safety Anti-bullying week: Cyberbullying Rings of responsibility: Videos: pause before you post Power of words: Cyberbullying Online symbols Let's fight it together: cyberbullying film	Online Safety: Safer Internet Day http://www.saferinternet day.org/web/ Think you know Jigsaw: Becky's Story	Online Safety Powerful Passwords Password Rap Horrible Histories How secure if my password? Cyber safety: Cyberbullying Choosing a good search site: BBC Website on searching Right sites: Don't be fooled	Online Safety: Positive online communications Safe on line talk Sharing Personal Information CEOP: Cyber café: chat activity	Online Safety :Privacy Rules Cybernetrix
I. Assessment Pathway	I can use logical reasoning to explain how algorithms work. I can design, write and debug a program that includes controlling or simulating physical systems. I can work with programs that involve variables. I can describe ways of reporting concerns and inappropriate behaviour. (Level 4)	I can use logical reasoning to explain how algorithms work. I can design, write and debug a program that includes controlling or simulating physical systems. I can work with programs that involve variables. I can describe ways of reporting concerns and inappropriate behaviour. (Level 4)	I can use logical reasoning to explain how algorithms work. I can design, write and debug a program that includes controlling or simulating physical systems. I can work with programs that involve variables. I can describe ways of reporting concerns and inappropriate behaviour. (Level 4)	I can use ICT to save information. I can use 'and' and 'or' when searching the Internet. I can exchange information with others in a range of different ways, e.g. e-mail, blog, Skype I can send text and images as attachments. I can describe the way in which search results are selected and ranked. (Level 4)	I can exchange information with others in a range of different ways, e.g. e-mail, blog, Skype I can send text and images as attachments. I can describe the way in which search results are selected and ranked. (Level 4)	I can use ICT to interpret findings and answer questions, e.g. Data Loggers. I can use a graphics package to develop and refine an image. I can use a multimedia package to produce a set of linked pages that include images, sound and text. I can choose an appropriate sensor to monitor environmental conditions and changes. I can gather and enter data into a datahandling package. I can use a spreadsheet to carry out calculations.

			I can select, use and
			combine a range of
			software to collect,
			evaluate and present
			data and information,
			e.g. Word, Publisher
			Excel.
			(Level 4)

Year Group	Aut 1	Aut 2	Spr 1	Spr 2	Sum 1	Sum 2
6 – Unit Title	We are a – Making	We are Computational	We are advertisers –	We are network	We travel writers –	We are publishers-
	a text based	thinkers – Mastering	Creating a short	technicians –	Using media and	Creating a
	adventure game	algorithms for	television advert	Exploring computer	mapping to	yearbook or
		searching, sorting and		networks including the	document a trip	magazine
		mathematics		internet		
A. Nat Curriculum 14	Computer Science	Computer Science	Digital Literacy	Computer Science	Computer Science	Digital Literacy
				Information technology		Information
	Design, write and	Design, write and debug	Use logical reasoning to		Use search	technology
	debug programs that	programs that accomplish	explain how some simple	Understand computer	technologies	
	accomplish specific	specific goals.	algorithms work and to	networks including the	effectively, appreciate	Understand computer
	goals, including		detect and correct errors in	internet; how they can	how results are	networks including
	controlling or	Use sequence, selection,	algorithms and programs.	provide multiple	selected and ranked,	the internet and the
	simulating physical	and repetition in		services, such as the	and be discerning in	opportunities they
	systems; solve	programs; work with	Use search technologies	world wide web; and the	evaluating digital	offer for
	problems by	variables and various	effectively, appreciate how	opportunities they offer	content.	communication and
	decomposing them	forms of input and output.	results are selected and	for communication and		collaboration.
	into smaller parts.		ranked, and be discerning	collaboration.	Select, use and	
		Use logical reasoning to	in evaluating digital		combine a variety of	Use search
	Use sequence,	explain how some simple	content.	Use technology safely,	software	technologies
	selection and	algorithms work and to	Select, use and combine a	respectfully and	(including internet	effectively, appreciate
	repetition in	detect and correct errors	variety of software	responsibly; recognise	services) on a range of	how results are
	programs; work with	in algorithms and	(including internet services)	acceptable/unacceptable	digital devices to	selected and ranked,
	variables and various	programs.	on a range of digital devices	behaviour; identify a	design and create a	and be discerning in
	forms of input and		to design and create a	range of ways to report	range of programs,	evaluating digital
	output.		range of programs, systems	concerns about content	systems and content	content.
			and content that	and contact.	that accomplish given	
	Use logical reasoning		accomplish given goals,		goals, including	Select, use and
	to explain how some		including collecting,		collecting, analysing,	combine a variety of

simple algorithms	analysing, evaluating and	evaluating and software
work and to detect	presenting data and	presenting data and (including internet
and correct errors in	information.	information. services) on a rang
algorithms and		of digital devices to
programs.	Use technology safely,	Use technology safely, design and create a
	respectfully and	respectfully and range of programs,
	responsibly; recognise	responsibly identify a systems and conte
	acceptable/unacceptable	range of ways to that accomplish give
	behaviour; identify a range	report concerns about goals, including
	of ways to report concerns	content and contact. collecting, analysin
	about content and contact.	evaluating and
		presenting data an
		information.
		Use to should see
		Use technology
		safely, respectfully and responsibly.
		and responsibly.

B. Academy Aims WHA ADMAT	Accelerating and sustaining children's progress towards higher achievement. Ensuring achievement gaps for disadvantaged children are addressed. Ensuring children are equipped for the next phase of learning. Creating an enjoyable and creative curriculum that meets the learning needs of children. Safe and Strong – to have a healthy body and mind. Self-confident – to have high self-esteem and self-confidence. Socially aware – to be global citizens with good social skills. Skilled – to have learning skills for the modern world.	Accelerating and sustaining children's progress towards higher achievement. Ensuring achievement gaps for disadvantaged children are addressed. Ensuring children are equipped for the next phase of learning. Creating an enjoyable and creative curriculum that meets the learning needs of children. Safe and Strong – to have a healthy body and mind. Self -confident – to have high self -esteem and self -confidence. Socially aware – to be global citizens with good social skills. Skilled – to have learning skills for the modern world.	Accelerating and sustaining children's progress towards higher achievement. Ensuring achievement gaps for disadvantaged children are addressed. Ensuring children are equipped for the next phase of learning. Creating an enjoyable and creative curriculum that meets the learning needs of children. Safe and Strong – to have a healthy body and mind. Self-confident – to have high self-esteem and self-confidence. Socially aware – to be global citizens with good social skills. Skilled – to have learning skills for the modern world.	Accelerating and sustaining children's progress towards higher achievement. Ensuring achievement gaps for disadvantaged children are addressed. Ensuring children are equipped for the next phase of learning. Creating an enjoyable and creative curriculum that meets the learning needs of children. Safe and Strong — to have a healthy body and mind. Self-confident — to have high self-esteem and self-confidence. Socially aware — to be global citizens with good social skills. Skilled — to have learning skills for the modern world.	Accelerating and sustaining children's progress towards higher achievement. Ensuring achievement gaps for disadvantaged children are addressed. Ensuring children are equipped for the next phase of learning. Creating an enjoyable and creative curriculum that meets the learning needs of children. Safe and Strong – to have a healthy body and mind. Self-confident – to have high self-esteem and self-confidence. Socially aware – to be global citizens with good social skills. Skilled – to have learning skills for the modern world.	Accelerating and sustaining children's progress towards higher achievement. Ensuring achievement gaps for disadvantaged children are addressed. Ensuring children are equipped for the next phase of learning. Creating an enjoyable and creative curriculum that meets the learning needs of children. Safe and Strong – to have a healthy body and mind. Self-confident – to have high self-esteem and self-confidence. Socially aware – to be global citizens with good social skills. Skilled – to have learning skills for the modern world.
Rising Stars ' Switched on Computing'	Networks	Thinking	Collaboration	roductivity	Togramming	Creditivity
D. Key Knowledge		Select, use and combine a		Design, write and debug	Design, write and	Understand computer

	Understand computer	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 Select, use and combine a	Select, use and combine a	programs that accomplish specific goals Use sequence, selection, and repetition in programs	debug programs that accomplish specific goals Use sequence, selection, and repetition in programs Use logical reasoning to explain how some simple algorithms work	networks including the internet Select, use and combine a variety of software Use technology safely, respectfully and responsibly
	networks including the internet Use search technologies effectively	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	variety of software to design and create a range of programs, systems and content that accomplishes given goals. Use technology safely, respectfully and responsibly			
E. Key Skills and Understanding Ref: The Saints Way: Church of England MAT	I can use a multimedia package to refine and present a series of linked pages. I can use 'and', 'or', and quotation marks when searching the Internet. I can use a range of	I can use an objects based graphics package. I can use a multimedia package to refine and present a series of linked pages. I can develop and search a branching database. I can use spreadsheet to test predictions and	I can use 'and', 'or', and quotation marks when searching the Internet. I can choose the most effective method for sharing and communicating information. I can send e-mails to multiple recipients, with attachments where	I can detect and correct errors in algorithms and programs. I can design, write and debug programs, by deconstructing a problem. I can work with programs that involve various forms of input and	I can detect and correct errors in algorithms and programs. I can design, write and debug programs, by deconstructing a problem. I can work with programs that involve	I can select, use and combine a range of software to collect, analyse, evaluate and present data and information, e.g. Word, Publisher, Powerpoint and Excel. I can use a multimedia package

	online resources to inform my work. I can talk about the effects of changing variables when using an ICT model. (Level 5)	theories. (Level 5)	appropriate. I can evaluate my use of ICT and identify improvements that could be made. (Level 5)	output. I can use a range of systems to report concerns and inappropriate behaviour (Level 5)	various forms of input and output. I can use a range of systems to report concerns and inappropriate behaviour. (Level 5)	to refine and present a series of linked pages. (Level 5)
F. Cross Curricular Links (Core non-negotiable standards)	SMSC: Keeping safe Literacy – biography research Word processing presenting written text History – WW2 research Science – circuits PSHE – R time rule posters	SMSC: Keeping safe Literacy – Word processing presenting written text Maths – handling data	SMSC: Keeping safe Literacy – Word processing presenting written text newspapers History – research and powerpoint on Ancient Greeks	SMSC: Keeping safe Literacy – Word processing presenting written text Geography – research extreme environments	SMSC: Keeping safe Literacy – Word processing presenting written text PE – presenting game rules Art - printing	SMSC: Keeping safe Literacy – Word processing presenting written text – London leaflets Geography – research London
G. Suggested programmes/hardwa re	Software: Prezi Apps: APP inventor	Apps: Google Apps for education	Software: Movie Maker Apps: I-Movie	Software: PowerPoint	Apps: App Inventor Python APP Scratch Junior	Software: Movie Maker Publisher
H. Online Safety Taken from SWGfl Digital Literacy and Citizenship	Online Safety Choosing a Search site: Appropriate online content	Online Safety Online Bullying week: online bullying Rings of responsibility: www.digizen.org: digital values Videos: pause before you post Online symbols	Online Safety: Safer Internet Day http://www.saferinternetd ay.org/web/ You've won a prize (spam) Horrible Histories	Online Safety Writing good emails	Online Safety Safe on line talk Positive online communications	Online Safety Whose is it anyway? (plagiarism) Advertising Detectives: CyberQuoll: trying it on Media Smart: Digital Adwise
I. Assessment Pathway	I can use 'and', 'or', and quotation marks when searching the	I can use an objects based graphics package. I can use a multimedia	I can choose the most effective method for sharing and communicating	I can detect and correct errors in algorithms and programs.	I can detect and correct errors in algorithms and	I can use 'and', 'or', and quotation marks when searching the

Internet.	package to refine and	information.	I can design, write and	programs.	Internet.
I can use a range of online resources to inform my work. I can select, use and combine a range of software to collect, analyse, evaluate and present data and information, e.g. Word, Publisher, Powerpoint and Excel.	present a series of linked pages. I can use sensors to monitor and measure external events. I can talk about the effects of changing variables when using an ICT model. I can develop and search a branching database. I can use spreadsheet to test predictions and theories.	I can send e-mails to multiple recipients, with attachments where appropriate. I can use my understanding of ranking to evaluate the digital content of search results. I can evaluate my use of ICT and identify improvements that could be made.	debug programs, by deconstructing a problem. I can work with programs that involve various forms of input and output. I can use a range of systems to report concerns and inappropriate behaviour.	I can design, write and debug programs, by deconstructing a problem. I can work with programs that involve various forms of input and output. I can use a range of systems to report concerns and inappropriate behaviour.	I can use a range of online resources to inform my work. I can select, use and combine a range of software to collect, analyse, evaluate and present data and information, e.g. Word, Publisher, PowerPoint and Excel.