



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

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.

	<ul style="list-style-type: none">• 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.
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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 Hunters – Using programmable toys	We are TV Chefs – Filming the steps of a recipe	We are Painters – Illustrating an eBook	We are Collectors – Finding images using the web	We are Storytellers – Producing a talking book	We are Celebrating – Creating a card digitally
A. Nat Curriculum 14	<p>Computer Science</p> <p>Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions</p> <p>Create and debug simple programs</p> <p>Use logical reasoning to predict the behaviour of simple programs</p> <p>Recognise common uses of information technology beyond school</p>	<p>Digital Literacy</p> <p>Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions</p> <p>Use technology purposefully to create, organise, store, manipulate and retrieve digital content</p> <p>Recognise common uses of information technology beyond school</p> <p>Use logical reasoning to predict the behaviour of simple programs</p>	<p>Information Technology</p> <p>Use technology purposefully to create, organise, store, manipulate and retrieve digital content</p> <p>Recognise common uses of information technology beyond school</p> <p>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.</p>	<p>Digital Literacy</p> <p>Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions</p> <p>Use technology purposefully to create, organise, store, manipulate and retrieve digital content</p> <p>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.</p>	<p>Information Technology</p> <p>Use technology purposefully to create, organise, store, manipulate and retrieve digital content</p> <p>Recognise common uses of information technology beyond school</p> <p>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.</p>	<p>Information Technology</p> <p>Use technology purposefully to create, organise, store, manipulate and retrieve digital content</p> <p>Recognise common uses of information technology beyond school</p> <p>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.</p>

				Recognise common uses of information technology beyond school		
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B. Academy Aims Link <ul style="list-style-type: none"> WHA ADMAT 	<p>Accelerating and sustaining children's progress towards higher achievement.</p> <p>Creating an enjoyable and creative curriculum that meets the learning needs of children.</p> <p>Ensuring achievement gaps for disadvantaged children are addressed.</p> <p>Skilled – to have learning skills for the modern world.</p>	<p>Ensuring achievement gaps for disadvantaged children are addressed.</p> <p>Creating an enjoyable and creative curriculum that meets the learning needs of children.</p> <p>Providing for children a safe, stimulating, caring but challenging learning environment.</p> <p>Skilled – to have learning skills for the modern world.</p> <p>Safe and Strong – to have a healthy body and mind.</p>	<p>Ensuring children are equipped for the next phase of learning.</p> <p>Creating an enjoyable and creative curriculum that meets the learning needs of children.</p> <p>Providing for children a safe, stimulating, caring but challenging learning environment.</p> <p>Skilled – to have learning skills for the modern world.</p> <p>Safe and Strong – to have a healthy body and mind.</p>	<p>Ensuring children are equipped for the next phase of learning.</p> <p>Creating an enjoyable and creative curriculum that meets the learning needs of children.</p> <p>Providing for children a safe, stimulating, caring but challenging learning environment.</p> <p>Skilled – to have learning skills for the modern world.</p> <p>Safe and Strong – to have a healthy body and mind.</p>	<p>Creating an enjoyable and creative curriculum that meets the learning needs of children.</p> <p>Accelerating and sustaining children's progress towards higher achievement.</p> <p>Providing for children a safe, stimulating, caring but challenging learning environment.</p> <p>Skilled – to have learning skills for the modern world.</p> <p>Safe and Strong – to have a healthy body and mind.</p>	<p>Creating an enjoyable and creative curriculum that meets the learning needs of children.</p> <p>Accelerating and sustaining children's progress towards higher achievement.</p> <p>Ensuring achievement gaps for disadvantaged children are addressed.</p> <p>Skilled – to have learning skills for the modern world.</p>
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 retrieve	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/hardware	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.saferinternetday.org/web/	Online Safety: link to browsing the internet <i>Going Places Safely</i> <i>ABC Searching</i>	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)
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Year Group	Aut 1	Aut 2	Spr 1	Spr 2	Sum 1	Sum 2
2 – Unit Title	We are Astronauts – Programming on screen	We are Game Testers – Exploring how computer games work	We are Photographers – Taking better photos	We are Researchers – Researching a topic	We are Detectives – Collecting clues	We are Zoologists – Collecting data about bugs
A. Nat Curriculum 14	<p>Computer Science</p> <p>Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions</p> <p>Create and debug simple programs</p> <p>Use logical reasoning to predict the behaviour of simple programs.</p>	<p>Computer Science</p> <p>Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions</p> <p>Use logical reasoning to predict the behaviour of simple programs.</p> <p>Recognise common uses of technology beyond school</p> <p>Use technology safely and respectfully, keep personal information private, know where to go for help and support if they have concerns about contact/content on the internet or other online technologies</p>	<p>Digital Literacy</p> <p>Use technology purposefully to create, organise, store, manipulate and retrieve digital content</p> <p>Recognise common uses of technology beyond school</p> <p>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.</p>	<p>Information Technology Digital Literacy</p> <p>Use technology purposefully to create, organise, store, manipulate and retrieve digital content</p> <p>Recognise common uses of technology beyond school</p> <p>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.</p>	<p>Information Technology Digital Literacy</p> <p>Use technology purposefully to create, organise, store, manipulate and retrieve digital content</p> <p>Recognise common uses of technology beyond school</p> <p>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.</p>	<p>Digital Literacy</p> <p>Use technology purposefully to create, organise, store, manipulate and retrieve digital content</p> <p>Recognise common uses of technology beyond school</p> <p>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.</p>
B. Academy Aims Link	<p>Accelerating and sustaining children’s progress towards higher achievement.</p> <p>Ensuring achievement gaps for disadvantaged</p>	<p>Accelerating and sustaining children’s progress towards higher achievement.</p> <p>Ensuring achievement gaps for disadvantaged</p>	<p>Accelerating and sustaining children’s progress towards higher achievement.</p> <p>Ensuring achievement gaps for disadvantaged</p>	<p>Ensuring children are equipped for the next phase of learning.</p> <p>Creating an enjoyable and creative curriculum that meets the learning</p>	<p>Ensuring children are equipped for the next phase of learning.</p> <p>Creating an enjoyable and creative curriculum that meets the learning</p>	<p>Accelerating and sustaining children’s progress towards higher achievement.</p> <p>Ensuring achievement gaps for disadvantaged</p>

	<p>children are addressed.</p> <p>Creating an enjoyable and creative curriculum that meets the learning needs of children.</p> <p>Skilled – to have learning skills for the modern world.</p> <p>Safe and Strong – to have a healthy body and mind.</p>	<p>children are addressed.</p> <p>Ensuring children are equipped for the next phase of learning.</p> <p>Creating an enjoyable and creative curriculum that meets the learning needs of children.</p> <p>Skilled – to have learning skills for the modern world.</p>	<p>children are addressed.</p> <p>Ensuring children are equipped for the next phase of learning.</p> <p>Creating an enjoyable and creative curriculum that meets the learning needs of children.</p> <p>Safe and Strong – to have a healthy body and mind.</p> <p>Self-confident – to have high self-esteem and self-confidence.</p> <p>Socially aware – to be global citizens with good social skills.</p> <p>Skilled – to have learning skills for the modern world.</p> <p>Soaring Stars – to have a love of life in all its forms</p>	<p>needs of children.</p> <p>Safe and Strong – to have a healthy body and mind.</p> <p>Self-confident – to have high self-esteem and self-confidence.</p> <p>Socially aware – to be global citizens with good social skills.</p> <p>Skilled – to have learning skills for the modern world.</p>	<p>needs of children.</p> <p>Safe and Strong – to have a healthy body and mind.</p> <p>Self-confident – to have high self-esteem and self-confidence.</p> <p>Socially aware – to be global citizens with good social skills.</p> <p>Skilled – to have learning skills for the modern world.</p> <p>Soaring Stars – to have a love of life in all its forms</p>	<p>children are addressed.</p> <p>Ensuring children are equipped for the next phase of learning.</p> <p>Creating an enjoyable and creative curriculum that meets the learning needs of children.</p> <p>Self-confident – to have high self-esteem and self-confidence.</p> <p>Socially aware – to be global citizens with good social skills.</p> <p>Skilled – to have learning skills for the modern world.</p> <p>Soaring Stars – to have a love of life in all its forms</p>
C. Scheme Reference Rising Stars ‘Switched on Computing’	Programming	Computational Thinking	Creativity	Computer Network	Communication and Collaboration	Productivity
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

	instructions. Create and debug simple programs	predict the behaviour of simple programs.	and respectfully	technologies	on the internet or other online technologies	school
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 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)	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/hardware	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.saferinternetday.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.

	<p>I can debug a simple program.</p> <p>I can predict the behaviour of a simple program (Level2)</p>	<p>I can use an increasing range of computer programs (Level2)</p>	<p>I can use ICT to organise and present information.</p> <p>I can talk about the use of ICT in and out of school. (Level2)</p> <p>I can talk about the steps to take if I am concerned or need help. (Level 3)</p>	<p>I can enter words into a word processor.</p> <p>I can use the backspace and delete keys.</p> <p>I can use a wordbank to create a sentence. (Level 2)</p> <p>I can use ICT to save information.</p> <p>I can use a search engine to locate information.</p> <p>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)</p>	<p>I can talk about the use of ICT in and out of school.</p> <p>I can talk about the steps to take if I am concerned or need help. (Level 2)</p> <p>I can select and use a range of software to collect and present data and information, (level 3)</p>	<p>I can use ICT to find information. (Level 2)</p> <p>I can enter data into a simple database. (Level 3)</p>
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Year Group	Aut 1	Aut 2	Spr 1	Spr 2	Sum 1	Sum 2
3 – Unit Title	We are Programmers – Programming an animation	We are Bug Fixers – Finding and correcting bugs in programs	We are Presenters – Videoing performance	We are Vloggers – Making and sharing a short screencast presentation	We are Communicators – Communicating safely on the internet	We are Opinion Pollsters – collecting and analysing data
A. Nat Curriculum 14	Computer Science Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts Use sequence 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	Computer Science 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	Digital Literacy 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	Information technology 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	Digital Literacy 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.	Information technology Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information 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 <ul style="list-style-type: none"> • WHA • ADMAT 	sustaining children's progress towards higher achievement.	sustaining children's progress towards higher achievement.	sustaining children's progress towards higher achievement.	sustaining children's progress towards higher achievement.	children's progress towards higher achievement.	sustaining children's progress towards higher achievement.
	Ensuring achievement gaps for disadvantaged children are addressed.	Ensuring achievement gaps for disadvantaged children are addressed.	Ensuring achievement gaps for disadvantaged children are addressed.	Ensuring achievement gaps for disadvantaged children are addressed.	Ensuring achievement gaps for disadvantaged children are addressed.	Ensuring achievement gaps for disadvantaged children are addressed.
	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.	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.
	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.	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.	Ensuring children are equipped for the next phase of learning.
	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.	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.
	Safe and Strong – to have a healthy body and mind.	Safe and Strong – to have a healthy body and mind.	Safe and Strong – to have a healthy body and mind.	Safe and Strong – to have a healthy body and mind.	Safe and Strong – to have a healthy body and mind.	Providing for children a safe, stimulating, caring but challenging learning environment.
	Self-confident – to have high self-esteem and self-confidence.	Self-confident – to have high self-esteem and self-confidence.	Self-confident – to have high self-esteem and self-confidence.	Self-confident – to have high self-esteem and self-confidence.	Self-confident – to have high self-esteem and self-confidence.	Safe and Strong – to have a healthy body and mind.
	Socially aware – to be global citizens with good social skills.	Socially aware – to be global citizens with good social skills.	Socially aware – to be global citizens with good social skills.	Socially aware – to be global citizens with good social skills.	Socially aware – to be global citizens with good social skills.	Self-confident – to have high self-esteem and self-confidence.
	Skilled – to have learning skills for the modern world.	Skilled – to have learning skills for the modern world.	Skilled – to have learning skills for the modern world.	Skilled – to have learning skills for the modern world.	Skilled – to have learning skills for the modern world.	Safe and Strong – to have a healthy body and mind.
	Soaring Stars – to have a love of life in all its	Soaring Stars – to have a love of life in all its	Soaring Stars – to have a love of life in all its	Soaring Stars – to have a love of life in all its	Soaring Stars – to have a love of life in all its forms.	Socially aware – to 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 programmes/hardware	Software: Scratch PowerPoint Apps: Hopscotch	Software: Scratch PowerPoint Apps:	Software: Movie Maker Apps: I-Movie	Software: Access to school network and command prompt	Software: Email Video Conf Presentation software Apps: FaceTime?	Software: Excel Word Apps: Safari
G. Cross Curricular Links (Core non-negotiable standards)	English: study of character, dialogue and narrative MFL – write dialogue for characters in French Maths English: using ICT programs as a stimulus	*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 working scientifically; in particular, making systematic and careful observations, and using results to draw conclusions and suggest improvements English: using ICT programs as a stimulus	*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 Using film in Stories from other cultures	*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 – Fantastic Mr Fox	English: opportunities to write for a range of real purpose and audiences as part of their work across the curriculum using ICT programs as a stimulus History: link with *geography: communicate geographical information in a variety of ways including ICT Languages – link with partner school	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	Online Safety Anti-bullying week: Cyberbullying: Screen out the Mean Kidscape advise Beatbullying resources	Online Safety: Safer Internet Day Keep it Private: ROAR poster: Online life FLAT STANLEY: sharing photos and videos Online Safety http://www.saferinternetday.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	<p>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)</p> <p>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)</p>	<p>I can talk about how to keep my-self safe when using technology (Level 2)</p> <p>I can debug a simple program. (Level 2)</p> <p>I can design, write and debug a program linked to specific goals (Level 3)</p>	<p>I can talk about how to keep my-self safe when using technology (Level 2)</p> <p>I can talk about the use of ICT in and out of school. (Level 2)</p> <p>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)</p>	<p>I can use search technology effectively and safely.</p> <p>I can describe ways of ensuring safe use of technology. (Level 3)</p>	<p>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)</p>	<p>I can enter data into a simple database. I can use a spreadsheet to produce a table of data. (Level 3)</p>

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

			responsibly; recognise acceptable/unacceptable behaviour			goals, including collecting, analysing, evaluating and presenting data and information
B. Academy Aims Link <ul style="list-style-type: none"> WHA ADMAT 	<p>Accelerating and sustaining children's progress towards higher achievement.</p> <p>Ensuring achievement gaps for disadvantaged children are addressed.</p> <p>Ensuring children are equipped for the next phase of learning.</p> <p>Creating an enjoyable and creative curriculum that meets the learning needs of children.</p> <p>Providing for children a safe, stimulating, caring but challenging learning environment.</p> <p>Safe and Strong – to have a healthy body and mind.</p> <p>Self-confident – to have high self-esteem and self-</p>	<p>Accelerating and sustaining children's progress towards higher achievement.</p> <p>Ensuring achievement gaps for disadvantaged children are addressed.</p> <p>Ensuring children are equipped for the next phase of learning.</p> <p>Creating an enjoyable and creative curriculum that meets the learning needs of children.</p> <p>Providing for children a safe, stimulating, caring but challenging learning environment.</p> <p>Safe and Strong – to have a healthy body and mind.</p> <p>Self-confident – to have high self-esteem and self-confidence.</p> <p>Socially aware – to be global citizens with</p>	<p>Accelerating and sustaining children's progress towards higher achievement.</p> <p>Ensuring achievement gaps for disadvantaged children are addressed.</p> <p>Ensuring children are equipped for the next phase of learning.</p> <p>Creating an enjoyable and creative curriculum that meets the learning needs of children.</p> <p>Providing for children a safe, stimulating, caring but challenging learning environment.</p> <p>Safe and Strong – to have a healthy body and mind.</p> <p>Self-confident – to have high self-esteem and self-confidence.</p> <p>Socially aware – to be global citizens with good social skills.</p> <p>Skilled – to have learning skills for the modern world.</p> <p>Soaring Stars – to have a</p>	<p>Accelerating and sustaining children's progress towards higher achievement.</p> <p>Ensuring achievement gaps for disadvantaged children are addressed.</p> <p>Ensuring children are equipped for the next phase of learning.</p> <p>Creating an enjoyable and creative curriculum that meets the learning needs of children.</p> <p>Providing for children a safe, stimulating, caring but challenging learning environment.</p> <p>Safe and Strong – to have a healthy body and mind.</p> <p>Self-confident – to have high self-esteem and self-confidence.</p> <p>Socially aware – to be global citizens with good social skills.</p> <p>Skilled – to have learning skills for the modern world.</p> <p>Soaring Stars – to have a</p>	<p>Accelerating and sustaining children's progress towards higher achievement.</p> <p>Ensuring achievement gaps for disadvantaged children are addressed.</p> <p>Ensuring children are equipped for the next phase of learning.</p> <p>Creating an enjoyable and creative curriculum that meets the learning needs of children.</p> <p>Providing for children a safe, stimulating, caring but challenging learning environment.</p> <p>Safe and Strong – to have a healthy body and mind.</p> <p>Self-confident – to have high self-esteem and self-</p>	<p>Accelerating and sustaining children's progress towards higher achievement.</p> <p>Ensuring achievement gaps for disadvantaged children are addressed.</p> <p>Ensuring children are equipped for the next phase of learning.</p> <p>Creating an enjoyable and creative curriculum that meets the learning needs of children.</p> <p>Providing for children a safe, stimulating, caring but challenging learning environment.</p> <p>Safe and Strong – to have a healthy body and mind.</p> <p>Self-confident – to have high self-esteem and self-</p>

	<p>confidence.</p> <p>Socially aware – to be global citizens with good social skills.</p> <p>Skilled – to have learning skills for the modern world.</p> <p>Soaring Stars – to have a love of life in all its forms.</p>	<p>good social skills.</p> <p>Skilled – to have learning skills for the modern world.</p> <p>Soaring Stars – to have a love of life in all its forms.</p>	love of life in all its forms.	love of life in all its forms.	love of life in all its forms.	<p>confidence.</p> <p>Socially aware – to be global citizens with good social skills.</p> <p>Skilled – to have learning skills for the modern world.</p> <p>Soaring Stars – to have a love of life in all its forms.</p>
C. Scheme Reference Rising Stars ‘Switched on Computing’	Programming	Computational Thinking	Creativity	Computer Network	Communication and Collaboration	Productivity
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	<p>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)</p> <p>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)</p>	<p>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)</p>	<p>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)</p>	<p>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)</p>	<p>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)</p>	<p>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)</p>
F. Suggested programmes/hardware	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 Wikipedia	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.saferinternetday.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 Advise (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)
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Year Group	Aut 1	Aut 2	Spr 1	Spr 2	Sum 1	Sum 2
5 – Unit Title	We are Game Developers – Developing an interactive game	We are Cryptographers – Cracking codes	We are Artists – Fusing geometry and art	We are Web Designers – Creating a website about cyber safety	We are Bloggers - Sharing experiences and opinions	We are Architects – Creating a virtual space
A. Nat Curriculum 14	Computer Science Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts Use sequence, selection, and repetition in programs; work with variables and various forms of input and output Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms/ programs Select, use and combine a variety of	Computer Science Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs Understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.	Information technology Computer Science 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	Digital Literacy 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 search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information	Digital Literacy 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	Digital Literacy Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information

	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. Ensuring achievement gaps	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	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

B. Academy Aims Link <ul style="list-style-type: none"> WHA ADMAT 	for disadvantaged children are addressed.	children are addressed.	children are addressed.	are addressed.	children are addressed.	children are addressed.
	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.	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.
	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.	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.
	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.	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.
	Providing for children a safe, stimulating, caring but challenging learning environment.	Safe and Strong – to have a healthy body and mind.	Safe and Strong – to have a healthy body and mind.	Safe and Strong – to have a healthy body and mind.	Safe and Strong – to have a healthy body and mind.	Safe and Strong – to have a healthy body and mind.
	Safe and Strong – to have a healthy body and mind.	Self-confident – to have high self-esteem and self-confidence.	Self-confident – to have high self-esteem and self-confidence.	Self-confident – to have high self-esteem and self-confidence.	Self-confident – to have high self-esteem and self-confidence.	Self-confident – to have high self-esteem and self-confidence.
	Self-confident – to have high self-esteem and self-confidence.	Socially aware – to be global citizens with good social skills.	Socially aware – to be global citizens with good social skills.	Socially aware – to be global citizens with good social skills.	Socially aware – to be global citizens with good social skills.	Socially aware – to be global citizens with good social skills.
	Skilled – to have learning skills for the modern world.	Skilled – to have learning skills for the modern world.	Skilled – to have learning skills for the modern world.	Skilled – to have learning skills for the modern world.	Skilled – to have learning skills for the modern world.	Skilled – to have learning skills for the modern world.
	Soaring Stars – to have a love of life in all its forms.	Soaring Stars – to have a love of life in all its forms.	Soaring Stars – to have a love of life in all its forms.	Soaring Stars – to have a love of life in all its forms.	Soaring Stars – to have a love of life in all its forms.	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 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	<p>I can use logical reasoning to explain how algorithms work.</p> <p>I can design, write and debug a program that includes controlling or simulating physical systems.</p> <p>I can work with programs that involve variables.</p> <p>I can describe ways of reporting concerns and inappropriate behaviour. (Level 4)</p>	<p>I can use logical reasoning to explain how algorithms work.</p> <p>I can design, write and debug a program that includes controlling or simulating physical systems.</p> <p>I can work with programs that involve variables.</p> <p>I can describe ways of reporting concerns and inappropriate behaviour. (Level 4)</p>	<p>I can use logical reasoning to explain how algorithms work.</p> <p>I can design, write and debug a program that includes controlling or simulating physical systems.</p> <p>I can work with programs that involve variables.</p> <p>I can describe ways of reporting concerns and inappropriate behaviour. (Level 4)</p>	<p>I can use ICT to save information.</p> <p>I can use 'and' and 'or' when searching the Internet.</p> <p>I can exchange information with others in a range of different ways, e.g. e-mail, blog, Skype</p> <p>I can send text and images as attachments.</p> <p>I can describe the way in which search results are selected and ranked. (Level 4)</p>	<p>I can exchange information with others in a range of different ways, e.g. e-mail, blog, Skype</p> <p>I can send text and images as attachments.</p> <p>I can describe the way in which search results are selected and ranked. (Level 4)</p>	<p>I can use ICT to interpret findings and answer questions, e.g. Data Loggers.</p> <p>I can use a graphics package to develop and refine an image.</p> <p>I can use a multimedia package to produce a set of linked pages that include images, sound and text.</p> <p>I can choose an appropriate sensor to monitor environmental conditions and changes.</p> <p>I can gather and enter data into a data-handling package.</p> <p>I can use a spreadsheet to carry out calculations.</p> <p>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)</p>
F. Cross Curricular Links (Core non-negotiable standards)	<p>Art – pupils improve their art and design skills by creating artwork for games</p> <p>Music – children record sound or compose music for games</p>	<p>Maths – encryption and decryption use mathematical function. Frequency tables play a role in cracking substitution ciphers</p> <p>PSHE – Privacy, safety and identity</p> <p>DT and science – children may make</p>	<p>Art and design – children learn about famous artists</p> <p>Maths – Knowledge of angles at a point to total 360°</p>	<p>English – apply skills in summarising texts and knowledge of GAPs</p> <p>History – conducting an enquiry and consider the authority and potential bias of source documents</p>	<p>English – plan, draft and evaluate their own and others writing</p> <p>Topic – Use blog to create a journal entry of a Shang character</p>	<p>Maths – apply skills of measurement and geometry</p> <p>Science – properties and changes of materials – hardness and transparency</p>

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

	<p>simple algorithms work and to detect and correct errors in algorithms and programs.</p>		<p>analysing, evaluating and presenting data and information.</p> <p>Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.</p>		<p>evaluating and presenting data and information.</p> <p>Use technology safely, respectfully and responsibly identify a range of ways to report concerns about content and contact.</p>	<p>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.</p> <p>Use technology safely, respectfully and responsibly.</p>
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B. Academy Aims <ul style="list-style-type: none">WHAADMAT	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 for disadvantaged children are addressed.	Ensuring achievement gaps for disadvantaged children are addressed.	Ensuring achievement gaps for disadvantaged children are addressed.	Ensuring achievement gaps for disadvantaged children are addressed.	Ensuring achievement gaps for disadvantaged children are addressed.	Ensuring achievement gaps for disadvantaged children are addressed.
	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.	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.
	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.	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.
	Safe and Strong – to have a healthy body and mind.	Safe and Strong – to have a healthy body and mind.	Safe and Strong – to have a healthy body and mind.	Safe and Strong – to have a healthy body and mind.	Safe and Strong – to have a healthy body and mind.	Safe and Strong – to have a healthy body and mind.
	Self-confident – to have high self-esteem and self-confidence.	Self-confident – to have high self-esteem and self-confidence.	Self-confident – to have high self-esteem and self-confidence.	Self-confident – to have high self-esteem and self-confidence.	Self-confident – to have high self-esteem and self-confidence.	Self-confident – to have high self-esteem and self-confidence.
	Socially aware – to be global citizens with good social skills.	Socially aware – to be global citizens with good social skills.	Socially aware – to be global citizens with good social skills.	Socially aware – to be global citizens with good social skills.	Socially aware – to be global citizens with good social skills.	Socially aware – to be global citizens with good social skills.
	Skilled – to have learning skills for the modern world.	Skilled – to have learning skills for the modern world.	Skilled – to have learning skills for the modern world.	Skilled – to have learning skills for the modern world.	Skilled – to have learning skills for the modern world.	Skilled – to have learning skills for the modern world.
C. Scheme Reference Rising Stars ‘Switched on Computing’	Computer Networks	Computational Thinking	Communication and Collaboration	Productivity	Programming	Creativity
D. Key Knowledge		Select, use and combine a		Design, write and debug	Design, write and	Understand computer

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

	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/hardware	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.saferinternetday.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 <u>Whose is it anyway?</u> (plagiarism) Advertising Detectives: CyberQuoll: trying it on Media Smart: Digital Advise
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

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