An Daras Multi Academy Trust

Windmill Hill Academy

Curriculum Scheme of Learning - Computing and Online Safety

Integrated Curriculum Scheme of Learning - 2018	
Domain of Learning:	**Computing**
National Curriculum Subjects:	**Computing**
Domain Leader:	**K. Clark**
Agreed and Approved:	**January 2018**
Next Leader Review:	**January 2019**
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 – 2018*	
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 – 2018*

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	Computer Science 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	Digital Literacy 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	Information Technology 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.	Digital Literacy 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. Recognise common uses of information technology beyond school	Information Technology 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.	Information Technology 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 • WHA • ADMAT	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.	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 Understanding Ref: The Saints Way: Church of England MAT	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 programme a simple programmable toy, e.g. Move the Beebot backwards and forwards.	I can use ICT to generate, amend and record my work. I can use simple interactive computer programs.	I can talk about how to keep my self safe when using technology I can use a paint package to create a picture on screen.	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 my self safe when using technology.	I can enter and retreive 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	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 use a word bank to create a sentence
F. Suggested programmes/hardware	Hardware: Bee Bots and other programmable toys. Software:	Hardware: iPads Software: Paint Movie maker	Hardware: PCs/ iPads Software: Paint Word PowerPoint	Software : Internet PowerPoint	Software : PowerPoint	Software : PowerPoint

	Apps: Begot App for iPad	Apps: I-Movie	Apps: Software			
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 *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 programme a simple programmable toy, e.g. Move the Beebot backwards and forwards. (Level 1)	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 use the backspace and delete keys. I can use a word bank to create a sentence (Level 2)	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 use a word bank to create a sentence (Level 2)
Switched on Online Safety	**We are Year 1 Rule Writers** - Creating rules that help us stay safe online	**We are kind and thoughtful -** Understanding the impact of our behaviour on others	**We are Responsible Internet and Devise Users –** Remembering to take time out from technology	**We are information protectors -** Understanding what is meant by personal information	**We are good digital citizens** -Finding out what it means to be a good digital citizen	**We are responsible gamers** - Learning how to stay safe when playing online games

Unit Summery	In this unit, children will help to develop a simple set of age-appropriate rules to establish a working framework for online safety for school and home during Year 1. They will watch two or three short video clips posing different online safety scenarios and suggest ways of staying safe in these situations. They will then help to create a simple set of online safety rules that can be used both at school and at home.	In this unit, children will begin to understand that behaviour online can affect people in the same way that it does in real life. They will carry out an experiment with two apples to see the impact of unkind behaviour and recall their online safety rules to discuss their responses to it. Finally, they will create a mini worry box to share with family at home.	In this unit, children will find out about the internet and how people use it. They will then consider how much time they spend on devices and come up with ideas for other activities that they might do instead.	In this unit, children will discuss the different ways people communicate online and what is meant by 'personal information'. They will watch a short video about sharing information and sort a set of information cards to decide what information should be kept private. The children will learn the procedures they can follow if someone online asks them for personal information and take home a *Family online action plan* to fill in with their parents or carers.	In this unit, children will find out what is meant by 'digital citizen' and develop an awareness that good digital citizenship is important wherever technology is used. They will create their own good digital citizen, which has a kind heart, warning tummy and a thinking brain. Finally, children will share their understanding of digital citizenship with their families by challenging them to create their own digital citizen.	In this unit, children will learn the importance of gaming in a shared space and of taking breaks from gaming. They will contribute to a safe gaming agreement for both school and home that lays the foundation for good practice when they are gaming online.

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	Computer Science 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.	Computer Science Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions Use logical reasoning to predict the behaviour of simple programs. Recognise common uses of technology beyond school 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	Digital Literacy Use technology purposefully to create, organise, store, manipulate and retrieve digital content Recognise common uses of 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.	Information Technology Digital Literacy Use technology purposefully to create, organise, store, manipulate and retrieve digital content Recognise common uses of 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.	Information Technology Digital Literacy Use technology purposefully to create, organise, store, manipulate and retrieve digital content Recognise common uses of 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.	Digital Literacy Use technology purposefully to create, organise, store, manipulate and retrieve digital content Recognise common uses of 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 • WHA • ADMAT	Accelerating and sustaining children's progress towards higher achievement. Ensuring achievement gaps for disadvantaged children are addressed. Creating an enjoyable and creative curriculum that meets the learning needs of children. 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	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	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.	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.	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

	Safe and Strong – to have a healthy body and mind.	of children. Skilled – to have learning skills for the modern world.	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 forms	Socially aware – to be global citizens with good social skills. Skilled – to have learning skills for the modern world.	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	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 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 instructions. Create and debug simple programs	Create and debug simple programs Programs execute by following precise and unambiguous instructions. Use logical reasoning to predict the behaviour of simple programs.	Use technology purposefully to create digital content Recognise common uses of technology beyond school Use technology safely and respectfully	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 technologies	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	Recognise common uses of technology beyond school Use technology purposefully Recognise common uses of technology beyond 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 predict the behaviour of a simple program (Level2)	I can debug a simple program. I can plan and give instructions to devices. I can use an increasing range of computer programs (Level2)	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. (Level2) I can talk about the steps to take if I am concerned or need help. (Level 3)	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. (Level 2) 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. (Level 3)	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. (Level 2) 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. (Level 2) I can enter data into a simple database. (Level 3)
Switched on Online Safety	**We are Year 2 Rule Writers** - Reviewing and editing our online safety guidelines	**We are not online bullies -** Creating a strong message against online bullying	**We are safe searchers -** Learning how to use search engines safely	**We are code masters -** Generating strong passwords and keeping them safe	**We are online behaviour experts -** Solving online safety problems	**We are game raters -** Understanding and applying the PEGI rating system for games
Unit Summery	In this unit, children will review, discuss and edit the online safety rules	In this unit, children will begin to understand what is meant by online	In this unit, children will discuss the process for finding information	In this unit, children will understand that passwords are an	In this unit, children will recap their school's ethos and values and	In this unit, children will understand that not all digital games are

	they created in Year 1. They will recall their learning from the previous year's online safety lessons and then look at different scenarios to decide the best response to online safety incidents.	bullying and its consequences. They will discuss how and where online bullying can occur and the role of the bystander. They will discuss the consequences of online bullying for the victim and the perpetrator and finally, they will create an anti-online bullying slogan to send a strong message that bullying is never acceptable.	online safely. They will begin to understand how a search engine works and how to get results that are relevant and appropriate to their query. Finally, they will create a 'top tips' list for safe searching.	important part of keeping information safe. They will discuss where passwords are required, including for devices, emails and other online activities and consider what happens if passwords are shared. They will then look at the rules for creating a strong password and discuss what makes a password weak. Finally, they will use these rules to practise generating their own passwords.	discuss how these can be applied to the way they use technology. They will then watch four short clips and discuss how the people in them can be better digital citizens and develop their own responses to these scenarios through role-play. Finally, they will apply their understanding of good digital citizenship when discussing this skill at home of digital citizenship with their families by challenging them to create their own digital citizen.	suitable for everyone. They will learn about the **PEGI rating** system and develop a rating for a game of their choosing.

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 Link • WHA • ADMAT	Accelerating and sustaining children's progress towards higher achievement. Ensuring achievement gaps for disadvantaged children are addressed. Ensuring children are	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	Accelerating and sustaining children's progress towards higher achievement. Ensuring achievement gaps for disadvantaged children are addressed. Ensuring children are equipped	Accelerating and sustaining children's progress towards higher achievement. Ensuring achievement gaps for disadvantaged children are addressed.

	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.	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.	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.	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.	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.	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.
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	I can describe an algorithm in increasing detail.	I can talk about how to keep my-self safe when	I can talk about the use of ICT in and out of school.	I can use search technology effectively and safely.	I can talk about the steps to take if I am concerned or need	I can enter data into a simple database.

Ref: The Saints Way: Church of England MAT	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)	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)	(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)		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 use a spreadsheet to produce a table of data. (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 woking scientifically; in particular, making systematic and careful observations, and using results to draw conclusions and suggest	*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	*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: 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.

		improvements English: using ICT programs as a stimulus	programs as a stimulus Using film in Stories from other cultures			
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 Cyber cafe	Online Safety
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)
Switched on Online Safety	**We are Year 3 rule writers** Reviewing and editing our online safety rules	**We are digital friends** Developing an awareness of online bullying	**We are internet detectives** Assessing the trustworthiness of websites	**We are aware of our digital footprint** Understanding the digital trails we leave behind	**We are netiquette experts** Practising good netiquette	**We are avatar creators** Who do we really know online?
Unit Summary	In this unit, children will review, discuss and edit the online safety rules they created in Year 2.	In this unit, children develop their understanding of online bullying.	In this unit, children will understand that not everything on the internet is true. They	In this unit, children will learn what is meant by '**digital footprint**'. They will discuss how data	In this unit, children will understand what is meant by **netiquette** and why it is important.	In this unit, children will understand that **online identities** may be misleading

	They will recall their learning from the previous year's online safety lessons and then look at different scenarios to decide the best response to online safety incidents.	Children will watch a series of short video clips presenting an online bullying scenario and examine the role of each person involved. They will then discuss the consequences of the bullying on the victim and perpetrator. Finally, they will review anti-bullying slogans.	will learn about clues to decide if a website is trustworthy and develop a checklist of these clues to critically compare a trustworthy and untrustworthy website from a given selection. Finally, they will apply their understanding when discussing this skill with parents at home.	about their internet activity is collected passively without them actively authorising this and how this compares with their **active digital footprint**. They will understand that everything shared on the internet can be found, shared, broadcast and copied and that it lasts forever. Finally, they will begin to build a picture of their own digital footprint that can be shared with grown-ups at home.	They will compare and contrast different styles of written communication and help compose a class response to an email using polite, respectful and appropriate language. Finally, they will create a netiquette guide to help promote good online behaviour.	or false. They will look at fictitious online identities to see what they can learn about their real life identities. Then they will create their own **avatar**, distribute them randomly and try to guess the identity of the creator. Finally, they will apply their understanding of online identities when discussing this issue at home with their family.

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 responsibly; recognise acceptable/unacceptable behaviour	**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 goals, including collecting, analysing, evaluating and presenting data and information
B. Academy Aims Link • WHA	Accelerating and sustaining children's	Accelerating and sustaining children's	Accelerating and sustaining children's progress towards	Accelerating and sustaining children's progress towards	Accelerating and sustaining children's progress towards	Accelerating and sustaining children's

• ADMAT	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. 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.	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. 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.	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. 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.	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. 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.	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. 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.	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. 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.
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	Understand computer networks including the internet; how they can provide multiple services, such as the	Use a variety of software (including internet services) to create content including presenting information	Use search technologies effectively, appreciate how results are

			create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information	world-wide web; and the opportunities they offer for communication and collaboration		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 concerns and inappropriate behaviour. (Level 4)	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)
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 Wikpedia	Software: Excel PowerPoints Apps:
G. Cross Curricular Links (Core non-negotiable standards)	Literacy – writing and publishing instructions Maths – designing	Literacy – performing and recording playscripts / using MSWord to write	Literacy – publishing poetry and creating story sound tracks Maths – creating repeating	Literacy – persuasive healthy eating posters Geography – google earth / maps and locations	Literacy / History – Egyptian research and wiki reports	Literacy – PowerPoint presentation linked to explanation texts

	Scratch games that practise times tables History – researching the Anglo-Saxons	their scripts Maths – Interactive software to practice mental maths Science – creating tables to record results of experiments	patterns (including through music) Music – performing, recording and evaluating story sound tracks			– 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 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 (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 concerns and inappropriate behaviour. (Level 4)	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 produce a table of data. (Level 3)
Switched on online Safety	**We are Year 4 rule writers -** Reviewing and editing our online safety rules	**We are standing up to peer pressure -** Dealing positively with peer pressure	**We are aware that our online content lasts forever** Getting the message: pre- and post-internet	**We are online risk managers -** Understanding risk and prevention of information loss	**We are respectful of digital rights and responsibilities -** Understanding and respecting digital rights and	**We are careful when talking to virtual friends** Virtual friendship vs real friendship: who

					responsibilities	we can trust
Unit Summary	In this unit, children will review, discuss and edit the online safety rules they created in Year 3. They will recall their learning from the previous year's online safety lessons and then look at different scenarios and decide the best response to these online safety incidents.	In this unit, children will understand that access to the internet is not the same among all people and that **peer pressure** can be both positive and negative. They will scrutinise and discuss a short online safety scenario and decide how to resolve a problem where access to the internet is not the same between two friends, resulting in negative peer pressure. They will then think of ways to reinforce positive behaviour.	In this unit, children will look at how we use the internet today to create and spread information very quickly. Children will compare and contrast the ways messages were sent before and after the advent of the internet. Then they will think about a digital medium through which they can spread information as if it was the 1940s, assessing the speed and reach of the message if it was sent via social media today.	In this unit, children will use their knowledge of online safety to work out what has happened to a family member's bank account. They will learn that **hacking** can be a criminal activity and clicking on links in suspicious websites or emails can introduce viruses to devices, putting personal information at risk and stopping the device from working. They will learn ways to protect their devices and accounts and use this information to create a family protection plan to share at home.	In this unit, children will discuss three articles from Unicef's *Rights of the Child* and apply them to digital citizenship, looking at rights and responsibilities as well as consequences of knowingly ignoring responsibilities. They will apply these to their own experiences and share their developed digital citizen with their families	In this unit, children will understand what is meant by virtual friendship and how this differs from real-life friendship. First they will discuss places people might meet **virtual friends**. Then they will test a virtual friendship with a real friendship. Finally, they will imagine they are a virtual friend and discuss what information they could share online.

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 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	**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 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. Be discerning in evaluating digital content	**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

B. Academy Aims Link • 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. 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	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. 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.	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. 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.	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. 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.	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. 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.	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. 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.
C. Scheme Reference Rising Stars ' Switched on Computing'	**Programming**	**Computational Thinking**	**Creativity**	**Computer Networks**	**Communication and Collaboration**	**Productivity**
D. Key Knowledge	Design, write and	Use logical reasoning to	Use sequence, selection, and	Understand computer	Understand computer	Use search technologies

	debug programs that accomplish specific goals	explain how some simple algorithms work	repetition in programs	networks including the internet Select, use and combine a variety of software to design and create a range of programs	networks including the internet Select, use and combine a variety of software to design and create a range of content that accomplishes given goals	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 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)
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	Maths – encryption and decryption use mathematical function. Frequency tables play a role in cracking substitution ciphers PSHE – Privacy, safety	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	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

	games	and identity DT and science – children may make simple telegraph circuits		of source documents		transparency
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.saferinternetday.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)
Switched on Online Safety	**We are Year 5 rule writers** Reviewing and editing our online safety rules	**We are responsible for our online actions** Understanding the impact of online behaviour	**We are content evaluators** Understanding advertising and endorsements online	**We are protecting our online reputation** Developing strategies to protect our future selves	**We are respectful of copyright** Understanding and applying copyright laws	**We are game changers** Understanding how game developers make money
Unit Summary	In this unit, children will review, discuss and edit the online safety rules they created in Year 4. They will recall their learning from the previous year's online safety lessons and then look at different scenarios to decide the best response to online safety incidents.	In this unit, children will understand that we must take responsibility for our own actions regardless of what others are doing. They will take on the role of one of six characters in an online safety scenario and make decisions about who the **bystanders** are and whether the scenario constitutes online bullying. Finally, they will decide how each character should respond to the situation.	In this unit, children will understand that some online content creators are paid by companies to support their products. They will watch a short video about **vloggers**, learn how vloggers can get paid and start to ask probing questions about online content. Finally, they will create a simple a rap or rhyming saying to remind them of ways of being discerning when viewing content online.	In this unit, children are going to understand that posting inappropriate, rude or offensive content online can affect our online reputation. They will start by thinking about how a negative online reputation might affect us, and role-play their future self meeting their future boss. Finally, they will discuss different ways they can help prevent putting something online they might later regret.	In this unit, children will understand that **copyright** rules exist to protect original content creators. They will review a scenario to work out if copyright rules apply and what the rights and responsibilities are of the parties involved. They will then review how copyrighted content could be used in school, and provide alternatives for this.	In this unit, children will learn the different ways that game developers ensure their games are successful and make money. They will discover different strategies to help guide them when making good choices about the games they play and then apply their knowledge to create a safe online gaming guide for families.

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	**Computer Science** Design, write and debug programs that accomplish specific goals. Use sequence, selection, and	**Digital Literacy** Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.	**Computer Science** **Information technology** Understand computer networks including the internet; how they can provide multiple services,	**Computer Science** Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating	**Digital Literacy** **Information technology** Understand computer networks including the internet and the opportunities they offer

	problems by decomposing them into smaller parts. Use sequence, selection and repetition in programs; work with variables and various forms of input and output. Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.	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.	Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content. Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information. Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.	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.	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 responsibly identify a range of ways to report concerns about content and contact.	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. Use technology safely, respectfully 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.
C. Scheme Reference Rising Stars ' Switched on Computing'	**Computer Networks**	**Computational Thinking**	**Communication and Collaboration**	**Productivity**	**Programming**	**Creativity**
D. Key Knowledge	Understand computer networks including the internet Use search technologies effectively	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	Select, use and combine a variety of software to design and create a range of programs, systems and content that accomplish given goals Use technology safely, respectfully and responsibly	Design, write and debug programs that accomplish specific goals Use sequence, selection, and repetition in programs	Design, write and debug programs that accomplish specific goals Use sequence, selection, and repetition in programs Use logical reasoning to	Understand computer networks including the internet Select, use and combine a variety of software Use technology safely, respectfully and

		presenting data and information Use technology safely, respectfully and responsibly			explain how some simple algorithms work	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 online resources to inform my work. I can talk about the effects of changing variables when using an ICT model. (Level 5)	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 theories. (Level 5)	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 appropriate. I can evaluate my use of ICT and identify improvements that could be made. (Level 5)	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 output. I can use a range of systems to report concerns and inappropriate behaviour (Level 5)	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 output. I can use a range of systems to report concerns and inappropriate behaviour. (Level 5)	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 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/hard ware	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 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 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.	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 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 choose the most effective method for sharing and communicating information. 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.	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 output. I can use a range of systems to report concerns and inappropriate behaviour.	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 output. I can use a range of systems to report concerns and inappropriate behaviour.	I can use 'and', 'or', and quotation marks when searching the 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.
Switched on Online Safety	**We are online safety ambassadors** Reviewing and editing our online safety rules	**We will not share inappropriate images** Inappropriate use of technology and the internet – nude selfies	**We are safe social networkers** Understanding that internet safety skills must always be switched on	**We are respectful of others** Respecting the personal information and privacy of others	**We are online safety problem solvers** Using our skills to resolve unfamiliar situations	**We are safe gaming experts** Creating and delivering advice on safe online gaming
Unit Summary	In this unit, children will review, discuss and edit the online safety rules they created in Year 5. They will recall their learning from the previous year's online safety lessons and then look at the use of 'Report this' functionality within websites and apps before considering appropriate responses to online safety scenarios specific to them. They will then consider how their online safety rules could be made more relevant for their age groups, in response to these new scenarios.	In this unit, children will learn about the consequences of sharing **nude selfies**. They will watch a short animation where a nude selfie goes viral and discuss why people might post such selfies. They will then review a scenario where someone is requesting a nude picture, and come up with strategies to deal with this. Finally, they will offer advice to children who are considering sharing nude selfies.	In this unit, children will learn how we can minimise the risks of using social networking sites. They will learn that most popular networking sites have age restrictions which should be adhered to. They will then discuss ways of reducing the risks when using social networking sites. Finally, they will develop a personal memo to remind them how to minimise these risks.	In this unit, children will understand that everyone has a right to privacy and that they need to be mindful of protecting other people's personal information online. They will review a vlogging scenario and consider questions about privacy, and then think about other possible situations where we must be mindful of the privacy preferences of others. Finally, they will create a permission pledge to understand the preferences of their family for appearing online.	In this unit, children will develop confidence in responding to unfamiliar online safety scenarios, in preparation for moving on to secondary education. Children will be presented with three unfamiliar online safety scenarios and have to develop an appropriate response to each.	In this unit, children will learn about the possible online safety risks of online gaming, including exposure to inappropriate content, bullying and trolling, and bribery. Children will then use what they have learnt to plan an assembly or presentation around safe gaming advice for parents, children or teachers.