## **Computing**

## Vision - 'all things are possible'

At Benedict Biscop we want our children to learn that all things are possible. We want our children to aspire and to achieve highly. We want our children to develop as IT professionals or Computer Scientists, developing knowledge and skills through the core element of computing which are computer science, information technology and digital literacy.

#### Characteristics:

- A love of technology and understand a variety of technology that can be used for a range of different purposes.
- To be patience and be able to problem solve to ensure that the technology is working correctly and effectively.
- To be **resilient** and continue to correct and develop the way technology is used.
- To be able to **problem solve** and find a solution to problems when using technology.
- To think logically and work methodically to solving problems with technology.
- To work **collaboratively** with other people, **in person and online**, to ensure that problems are solved.
- To be **creative** and use a range of different software and programs to enhance and develop their work.
- To use and apply computational thinking to the core elements of computing

At Benedict Biscop, we actively encourage cross-curricular learning, to give pupils maximum opportunity to transfer skills and knowledge. Within Computing, we want children to understand elements of computer science, information technology and digital literacy which are taught both explicitly as a 'stand-alone' sequence of lessons or through transferable skills taught and then applied in cross-curricular lessons. The Computing curriculum is separated into four strands: understanding and creating algorithms; digital content and the internet; understanding the application of IT; and online safety and appropriate use. Each area of Computing focus on one or more of the core elements of computing. As technology is continuing to become a huge part in everyday life, we want to ensure children have the appropriate and suitable skills and knowledge for the future workplace, and grow and develop into active participants in the digital world. We want our children to use computational thinking and creativity to understand and change the world through collaboration, as well as making links to industry.

#### **National Curriculum Aims:**

• 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.

### Early Years Foundation Stage Computing looks at:

- Begin to understand what algorithms are through the following and giving of instructions, begin to explore how algorithms are implemented as programs on digital devices
- Begin to use technology independently and/or with support to purposefully create, organise, store, manipulate and retrieve digital content
- · Begin to recognise common uses of information technology within school and beyond
- Begin to use understand how to use technology safely and respectfully with/without support, keeping personal information private; understanding where to go for help and support when they have concerns about content or contact on the internet or other online technologies

### Key Stage 1 Computing looks at:

- 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
- 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

# Key Stage 2 Computing looks at:

- Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts
- Use sequence, selection, and repetition in programs; work with variables and various forms of input and output
- Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs

- Understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration
- 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

#### **PROGRESSION**

To meet our curriculum aims, we have identified core strands of learning [generic learning units] which run throughout our curriculum. We have identified what this should look like at the end of key phases within the school [key skills demonstrated].

The curriculum is taught in a spiral design where learning is revisited and embedded – deepening learning and developing Mastery.

Key generic learning objectives	EYFS working at the EXPECTED STANDARD	EYFS working ABOVE the expected standard	KS1 working at the EXPECTED STANDARD	KS1 working ABOVE the expected standard	Lower KS2 working at the EXPECTED STANDARD	Lower KS2 working ABOVE the expected standard	Upper KS2 working at the EXPECTED STANDARD	Lower KS2 working ABOVE the expected standard
Understanding and Creating Algorithms	Bee Bot	Bee Bot	Bee Bot Daisy the Dinosaur	Daisy the Dinosaur Scratch Jr	Scratch Jr	Scratch Jr	Hopscotch	Hopscotch Swift
	To understand how to make a floor robot move  To follow instructions from a friend or familiar adult  To begin to describe what actions I need to do for something to happen using hardware	To understand how to make a floor robot move and begin to give simple instructions  To follow instructions from unfamiliar adults and children  To begin to give simple instructions to a friend	To give precise and simple instructions to a friends to make them move (forwards, backwards, turn right, turn left)  To explain the order of a set of instructions as an algorithm  To read an algorithm and demonstrate what	To give precise and simple instructions to a friends to make them move (forwards, backwards, turn right, turn left) consistently  To explain the order of a set of instructions as an algorithm and begin to break instructions down into smaller parts	To use logical reasoning to decompose an open-ended problem into smaller parts  To use algorithms to solve complex problems  To use logical reasoning to simplify a program  To explain the input and output to program a	To effectively use logical reasoning to decompose an open-ended problem into smaller parts and begin to identify patterns  To use precise, accurate and logical algorithms to solve complex problems  To use logical reasoning to simplify a program consistently and	To decompose an open-ended problem into smaller parts and recognise patterns between programs to solve a problem  To design, write and debug programs that achieve a specific goal  To evaluate the effectiveness and	To effectively decompose an open- ended problem into smaller parts and consistently recognise patterns between programs to solve a problem  To confidently and consistently design, write and debug programs that
	nappen asing har aware	To describe what actions I need to do for	and demonstrate what will happen		robot/software	consistently and effectively	effectiveness and efficiency of my	programs that

	1	T	1	1	r <u> </u>	I		
		something to happen		To <u>confidently</u> read an	To use a sensor within an		algorithm as a whole	achieve a specific
		using software and	To program a robot to	algorithm and demonstrate	algorithm	To explain the input and	by continually testing	goal
		hardware	do a specific task by	what will happen	_	output to program a	the program	
			using a precise algorithm		To use a variety of	robot/software <u>and</u>		To <u>critically</u>
				To program a robot to do a	commands to create a	explain how the input	To use logical	evaluate the
			To use programming	specific task by using a	precise program	affects the output	reasoning to detect	effectiveness and
			software to create	precise algorithm			correct errors in	efficiency of my
			simple programs	consistently and explain	To detect errors in an	To <b>confidently</b> use a	algorithms and	algorithm as a whole
				their thinking	algorithm and debug an	sensor within an algorithm	programs	by continually
			To use logical reasoning		algorithm using			testing the program
			to predict the behaviour	To <u>consistently use a</u>	abstraction	To use a variety of	To recognise the use	
			of simple programs	<u>range of</u> programming		commands to create a	of a variable to	To <b>effectively</b> use
				software to create simple	To evaluate the	precise program <u>with</u>	achieve a specific	logical reasoning to
			To watch an algorithm	programs	effectiveness of a	greater accuracy and	outcome	confidently detect
			and debug to make an		program and why a	<u>consistency</u>		correct errors in
			algorithm precise	To <b>confidently</b> use logical	program is suitable		To use a variable and	algorithms and
				reasoning to predict the		To <u>accurately</u> detect	operators to stop a	programs
				behaviour of simple		errors in an algorithm and	program	
				programs		precisely debug an		To <b>confidently</b>
						algorithm using		recognise the use of
				To watch an algorithm and,		abstraction		a variable to achieve
				consistently and				a specific outcome
				confidently debug to make		To evaluate the		
				an algorithm precise		effectiveness of a		To <b>effectively</b> use a
						program and why a		variable and
						program is suitable <u>and</u>		operators to stop a
						unsuitable to achieve a		program
						specific outcome		
	T	T 1 1 1	T	T (6 11 1	T 1 1 2	T (6 1: 1 1	T (( ): 1 )	T (( ): 1
Digital Content	To begin to use	To begin to use	To use technology to	To <u>effectively</u> use	To create work using a	To <u>effectively</u> create	To effectively create	To effectively
and the	technology to collect	technology to collect	collect information	technology to collect	range of text, pictorial	work using a range of text,	digital content by	create digital
Internet	information with adult	information	(text, photos, videos and	information (text, photos,	and audio for a specific	pictorial and audio for a	adding appropriate	content by adding
Tulellel	support	independently	sounds)	videos and sounds)	purpose and audience	specific purpose and	text, images, sound	appropriate text,
	_ ,			- 46	- 1:6 · 1 · 1	audience	and videos to meet a	images, sound and
	To begin to	To begin to understand	To use technology to	To <u>effectively</u> use	To modify a template and	- cc	specific purpose	videos to meet a
	understand how to use	how to use information	create, organise and	technology to <u>confidently</u>	use a range of tools to	To <u>effectively</u> modify a	- cc .: l l	specific purpose
	information from the	from the internet in my	present my work	create, organise and	create a piece of work for	template and <u>confidently</u>	To effectively plan	consistently and
	internet in my work	work		present my work	a specific purpose	use a range of tools to	the process of using,	with confidence
	with adult support		To use information that			create a piece of work for	finding, creating and	
		To understand and use	I have found on the	To <u>confidently and</u>	To critically evaluate the	a specific purpose	modifying digital	To effectively <u>and</u>
	To understand letters	the letters on a	internet	consistently use	effectiveness of my work		content	<u>critically</u> plan the
	on a keyboard	keyboard to spell words		information that I have	_ ,	To critically evaluate the	_ ,	process of using,
	1	l_, , .		found on the internet	To begin to use transitions	effectiveness of my work	To use logically	finding, creating and
	To use a keyboard	To know how to use			and animations when	and why my work is good	reasoning to choose an	modifying digital
	with adult support on	spacing between words			creating presentations	and how I could improve	appropriate template	content
	a digital device					<u>it</u>	to modify to	
	<b> </b>	To begin to be creative			To confidently use	<u> </u>	effectively meet a	To <u>confidently</u> use
	To begin to	using different			information, I have found	To to use transitions and	purpose	logically reasoning
	understand where I	technology tools with			on the internet and check	animations when creating		to choose an
	can save work	adult support			its reliability	presentations		appropriate

To begin to collect data using physical objects	To begin to save digital content on a familiar online platform				To confidently use information, I have found on the internet and check its reliability with increasing confidence	To be digitally critical when evaluating effectiveness of content  To be digitally critical when searching for information online by checking its reliability and plausibility	template to modify to effectively meet a purpose and articulate their how it meets the purpose  To be digitally critical when evaluating
							effectiveness of content by explain and reasoning their understanding of content  To be digitally critical when searching for information online by checking its reliability and
		To be creative using	To be <u>consistently</u>	To use technology	To <u>effectively</u> use	To effectively select,	plausibility consistently To effectively
		different technology (shapes)  To use a keyboard to add, delete and space text	creative using different technology (shapes)  To use a keyboard to add, delete and space text_with increasing confidence	creatively when creating work online using a range of different effects appropriately (font, letter size, colour, etc.)  To use a keyboard confidently and use spellchecker to review my work  To change the appearance of text to increase its effectiveness for a specific purpose	technology creatively when creating work online using a range of different effects appropriately (font, letter size, colour, etc.) with confidence  To use a keyboard confidently and effectively use spellchecker to review my work  To effectively and consistently change the appearance of text to increase its effectiveness for a specific purpose	use and combine appropriate digital tools to create effects to enhance my work creatively  To use a keyboard with increasing fluency and pace  To be digitally critically when choosing appropriate tools to edit the appearance of text and images to meet a specific purpose	select, use and combine appropriate digital tools to create effects to enhance my work creatively consistently to meet a purpose  To confidently use a keyboard with increasing fluency and pace  To be digitally critically when choosing appropriate tools to edit the appearance of text and images to meet a specific purpose and explain why they have
							edited in a specific way

			To save and retrieve	To <u>consistently</u> save and	To save, store and	To <u>confidently and</u>	To save, store and	To confidently and
			digital content on an	retrieve digital content on	retrieve work on an online	consistently save, store	retrieve work on an	consistently save, store and retrieve
			online platform	an online platform <u>without</u> any adult support	network	and retrieve work on an online platform or school	appropriate online platform or school	work on an
				any dauri support	herwork	network <u>without adult</u>	network	appropriate online
						support	HETWOTK	platform or school
						<u> </u>		network and explain
								why they have
								saved their work on
								the appropriate
								<u>platform</u>
			To make and save	To <u>confidently</u> make and	To describe and explain	To <u>confidently</u> describe	To effectively create,	To effectively
			spreadsheets created on	save spreadsheets created	different ways data can be	and explain different ways	critically analyse,	create, critically
			a digital device	on a digital device	organised digitally for	data can be organised	confidently evaluate	analyse, confidently
			To be also decreased and a	To was also was and amounts	different purposes	digitally for different	and appropriately	evaluate and
			To begin to use charts and graphs to represent	To use charts and graphs to represent data without	(charts/graphs)	purposes (charts/graphs)  and why data is	present data using spreadsheets.	appropriately present data using
			data	adult support	To plan, create and search	presented in a specific	databases and graphs	spreadsheets,
			dura	addit Support	a database to answer	way	aurabases and graphs	databases and
			To begin to use	To use branching database	questions		To input a range of	graphs consistently
			branching database	without adult support	•	To <u>logically and</u>	formulas to create	and explain why
			-		I can collect data and	effectively plan, create	data (adding,	they have
					identify when data could	and search a database to	averages)	<u>presented data in</u>
					be inaccurate	answer questions		specific way
							To appropriately edit	
					To collect data for a	To <u>confidently</u> collect data	the format of a cell on	To input a range of
					specific purpose and	and <u>consistently</u> identify when data could be	a database for different purposes	formulas to create data (adding,
					present data using an appropriate way	inaccurate	aitterent purposes	aata (aading, averages) <u>with</u>
					appropriate way	maccurate	To check the	confidence
						To <b>confidently</b> collect data	plausibility and	<u>commence</u>
						for a specific purpose and	accuracy of data	To appropriately
						present data effectively	collected and how it	edit the format of a
						using an appropriate way	can be interpreted in	cell on a database
							different ways	for different
								purposes <u>with</u>
								<u>confidence</u>
								To <b>critically</b> check
								the plausibility and
								accuracy of data
								collected and how it
								can be interpreted
								in different ways
	To understand what	To understand what	To identify and explain	To <u>confidently</u> identify	To describe whether I am	To <u>confidently</u> describe	To explain the	To effectively
Understanding	technology is	technology is and being	the benefits of using	and explain the benefits	using something from the	whether I am using	internet services for	explain the internet
the Application		able to understand how	technology	of using technology <u>and</u>	internet, school network	something from the	different purposes	services for
of IT	To give example of	it is used		explain why the	or a digital device	internet, school network		different purposes
	technology			technology is beneficial		or a digital device		and why the

To begin to use website links with adult support  To begin to understand ways technology is used at home with adult support  To begin to identify technology in the local area  To make an internet search with an adult	To give an example of technology and how it is used  To begin to use website links  To begin to understand ways that technology is used at home and at school.  To begin to identify technology in the local area and how it is used  To begin to understand how to make an internet search	To explain how the real world is different to the online world  To explain how I can share my work online with others  To explain what inputs and outputs are	To explain how the real world is different to the online world and reason the understanding  To confidently explain how I can share my work online with others  To explain what inputs and outputs are in detail	To choose which digital application to use to meet a purpose  To explain the design of a web-page and the external links  To choose an appropriate online platform to collaborate with others  To create a hyperlink to a website on the World  Wide Web	To choose which digital application to use to meet a purpose and explain my choice  To explain the design of a web-page and the external links by making links with others  To critically choose an appropriate online platform to collaborate with others and explain my choice  To confidently and consistently create a hyperlink to a website on the World Wide Web	To understand 'copyright' and describe what it means  To describe how to acknowledge sources from the internet  To describe how information is transported on the internet  To understand different types of tools used online and on technologies that can be used for collaboration and communication	services are important  To confidently understand 'copyright', describe what it means and why it is important  To confidently describe how to acknowledge sources from the internet  To describe how information is transported on the internet in great detail  To understand different types of tools used online and on technologies that can be used for collaboration and
		To explain why you use technology in the classroom  To explain why technology is used in the local area  To recognise common uses of information technology outside of school  To make simple internet searches to find information	To explain and compare why you use technology in the classroom  To explain and compare why technology is used in the local area  To recognise and compare common uses of information technology outside of school  To accurately make simple internet searches to find information using specific keywords	To use search engines to find appropriate websites using specific keywords	To use search engines effectively and accurately to find appropriate websites using specific keywords	To use keywords to make effective internet searches and evaluate rankings of websites and digital content	To consistently and accurately use keywords to make effective internet searches and critically evaluate

			To retrieve information from the internet to investigate questions	To <u>accurately</u> retrieve information from the internet to investigate questions <u>and check its relevance</u>	To understand and check who owns images and text on the internet  To identify key words to use when searching the World Wide Web safely	To understand and check who owns images and text on the internet and explain how you know  To effectively and accurately identify key words to use when searching the World Wide Web safely	To evaluate the reliability of websites  To explain how website are ranked and selected based on how they are searched	rankings of websites and digital content  To <u>critically</u> evaluate the reliability of websites  To <u>confidently</u> explain how website are ranked and selected based on how they are searched <u>by making comparison</u>
Online Safety and Appropriate Use	To begin to use technology safely To ask an adult to use the internet To understand who is a trusted adult that can help with internet problems To understand how to be kind online To understand how long I should spend on a device To know how to handle devices and technology carefully To begin to understand what online bullying is	To use technology safely To understand what respectfully means and apply that to online To understand why I should ask an adult to use the internet To understand why we should be kind online To understand how long I should spend on a device and how spending too long can affect me To know how to handle devices and technology carefully and begin to understand how devices can be broken To understand what online bullying is and make links to physical bullying,	To use technology safely and respectfully	To use technology safely and respectfully with confidence	To use technology safely, responsibly and respectfully  To recognise and describe acceptable and unacceptable behaviour online  To understand how and why to report content and concerns	To use technology safely, responsibly and respectfully with confidence  To accurately recognise and confidently describe acceptable and unacceptable behaviour online  To understand how and why to report content and concerns in detail	To use technology safely, responsibly and respectfully  To recognise, describe and explain acceptable and unacceptable behaviour online effectively  To understand how and why to report content and concerns by explaining the most appropriate method of reporting	To use technology safely, responsibly and respectfully with confidence  To accurately recognise, describe in detail and effectively explain acceptable and unacceptable behaviour online effectively  To understand how and why to report content and concerns by explaining the most appropriate method of reporting and reason their actions
			To explain why it is important to keep personal information safe	To explain why it is important to keep personal information safe and what could happen if your personal information is not kept safely	To describe how online message can be hurtful To explore online plagiarism	To describe how <u>and why</u> online message can be hurtful	To compare online bullying to other types of bullying To identify similarities and	To <u>critically</u> compare online bullying to other types of bullying <u>focusing on</u>

To understand who I		To explore online games	To explore online	differences between	similarities and
should go to for support	To understand who I	and whether they are age	plagiarism <u>and why it is</u>	strategies for online	<u>differences</u>
when online and why I	should go to for support	appropriate	<u>important</u>	bullying and other	
should do this	when online and why I			types of bullying	To identify
	should do this <u>using</u>	To create a safe online	To <u>critically</u> explore online		similarities and
To understand what	experiences in their own	profile	games and whether they	To recognise secure	differences
content and contact is	lives		are age appropriate <u>and</u>	and insecure websites	between strategies
unsafe when online and		To describe how to be a	explain why		for online bullying
how you should act upon	To <u>critically</u> understand	good digital citizen online		To understand safe	and other types of
concerns	what content and contact	and in real life	To <b>effectively</b> create a	and unsafe	bullying <b>and which</b>
	is unsafe when online and		safe <b>and secure</b> online	information to share	strategies are
To explain how people	how you should act upon		profile	with other online	effective for
can find out personal	concerns by explaining				different situations
information about you by	their reasoning		To describe how to be a	To evaluate media	
what you put online			good digital citizen online	aimed at boys and	To <u>accurately</u>
	To <b>confidently</b> explain how		and in real life <b>by making</b>	girls	recognise secure
To use the internet	people can find out		comparisons between		and insecure
safely by using keywords	personal information about		reality and virtual		websites <u>and</u>
to search for	you by what you put online				explain how secure
information					they are
	To <u>accurately and</u>				
To explain how we act if	effectively use the				To understand safe
we are being bullied	internet safely by using				and unsafe
online	keywords to search for				information to share
	information				with other online <u>by</u>
					critically evaluating
	To explain how we act if				the information
	we are being bullied online				
	and why we acted that				To <u>critically</u>
	way				evaluate media
					aimed at boys and
					girls <b>and why they</b>
					may be similar or
					<u>different</u>

# **EYFS**

	EYFS- ELG	EYFS- Exceeding ELG
UNDERSTANDING AND CREATING ALGORITHMS	To understand how to make a floor robot move  To follow instructions from a friend or familiar adult  To begin to describe what actions I need to do for	To understand how to make a floor robot move and begin to give simple instructions  To follow instructions from unfamiliar adults and children
	something to happen using hardware	To begin to give simple instructions to a friend
		To describe what actions I need to do for something to happen using software and hardware
DIGITAL CONTENT AND THE INTERNET	To begin to use technology to collect information with adult support	To begin to use technology to collect information independently
	To begin to understand how to use information from the internet in my work with adult support	To begin to understand how to use information from the internet in my work
	To understand letters on a keyboard	To understand and use the letters on a keyboard to spell words
	To use a keyboard with adult support on a digital device	
	To begin to understand where I can save work	To know how to use spacing between words
	To begin to collect data using physical objects	To begin to be creative using different technology tools with adult support  To begin to save digital content on a familiar online platform
UNDERSTANDING THE APPLICATION OF IT	To understand what technology is	To understand what technology is and being able to understand how it is used
7.11.2207.1207.01.11	To give example of technology	
	To begin to use website links with adult support	To give an example of technology and how it is used
		To begin to use website links

	To begin to understand ways technology is used at home with adult support	To begin to understand ways that technology is used at home and at school.
	To begin to identify technology in the local area	To begin to identify technology in the local area and how it is used
	To make an internet search with an adult	
		To begin to understand how to make an internet search
ONLINE SAFETY AND APPROPIATE USE	To begin to use technology safely	To use technology safely
	To ask an adult to use the internet	To understand what respectfully means and apply that to online
	To understand who is a trusted adult that can help with	
	internet problems	To understand why I should ask an adult to use the internet
	To understand how to be kind online	To understand why we should be kind online
	To understand how long I should spend on a device	To understand how long I should spend on a device and how spending too long can affect me
	To know how to handle devices and technology carefully	
		To know how to handle devices and technology carefully and
	To begin to understand what online bullying is	begin to understand how devices can be broken
		To understand what online bullying is and make links to physical bullying,

AUTUMN UNIT	Key generic learning objectives	Unit specific learning objectives	KS1 working at the EXPECTED STANDARD	KS1 working <b>ABOVE</b> the expected standard
-------------	---------------------------------	-----------------------------------	--------------------------------------	--

Me, My family, My World	Understanding and Creating Algorithms  Digital Content and the Internet	To give instructions to a friend and follow their instructions to move around  To describe what actions, I will need to do to make something happen.  To use technology to collect information (text, photos)  To begin to use technology to create, organise and present my work  To understand how to use information from the internet in my work  To use a keyboard on a digital device to type text  To begin to be creative using different technology tools  To begin to save and retrieve digital content on	To give precise and simple instructions to a friends to make them move (forwards, backwards, turn right, turn left)  To explain the order of a set of instructions as an algorithm  To read an algorithm and demonstrate what will happen  To program a robot to do a specific task by using a precise algorithm  To use programming software to create simple programs  To use logical reasoning to predict the behaviour of simple programs  To watch an algorithm and debug to make an algorithm precise  To use technology to collect information (text, photos, videos and sounds)  To use technology to create, organise and present my work  To use information that I have found on the internet  To be creative using different technology (shapes)  To use a keyboard to add, delete and space text  To save and retrieve digital content on an online platform  To make and save spreadsheets created on a digital device.	To give precise and simple instructions to a friends to make them move (forwards, backwards, turn right, turn left) consistently  To explain the order of a set of instructions as an algorithm and begin to break instructions down into smaller parts  To confidently read an algorithm and demonstrate what will happen  To program a robot to do a specific task by using a precise algorithm consistently and explain their thinking  To consistently use a range of programming software to create simple programs  To confidently use logical reasoning to predict the behaviour of simple programs  To watch an algorithm and, consistently and confidently debug to make an algorithm precise  To effectively use technology to collect information (text, photos, videos and sounds)  To effectively use technology to confidently create, organise and present my work  To confidently and consistently use information that I have found on the internet  To be consistently creative using different technology (shapes)  To use a keyboard to add, delete and space text, with increasing confidence
		an online platform	device  To begin to use charts and graphs to represent data  To begin to use branching database	content on an online platform without any adult support  To confidently make and save spreadsheets created on a digital device  To use charts and graphs to represent data without adult support  To use branching database without adult support
	Understanding the Application of IT	<ul> <li>To understand the uses of everyday technology</li> <li>To use website links to find information</li> <li>To begin to understand the benefits of using technology</li> </ul>	To identify and explain the benefits of using technology  To explain how the real world is different to the online world  To explain how I can share my work online with others	To <u>confidently</u> identify and explain the benefits of using technology <u>and explain why</u> the technology is beneficial  To explain how the real world is different to the online world <u>and reason the understanding</u>

,			,
	<ul> <li>To understand how to make an internet search</li> </ul>		To <u>confidently</u> explain how I can share my
		To explain what inputs and outputs are	work online with others
		To explain why you use technology in the classroom	To explain what inputs and outputs are <u>in</u>
			<u>detail</u>
		To explain why technology is used in the local area	
			To explain and compare why you use
		To recognise common uses of information technology	technology in the classroom
		outside of school	-
			To explain and compare why technology is used
		To make simple internet searches to find information	in the local area
		To retrieve information from the internet to	To recognise and compare common uses of
		investigate questions	information technology outside of school
			To accurately make simple internet searches
			to find information using specific keywords
			To find information asing specific its/vorus
			To accurately retrieve information from the
			internet to investigate questions and check its
			relevance
	To use technology safely and respectfully	To use technology safely and respectfully	To use technology safely and respectfully with
Online Safety and	• To use rechnology safely and respectfully	To use rechnology safety and respectfully	confidence
	To name and date a document on a secure online	To explain why it is important to keep personal	To explain why it is important to keep personal
Appropriate Use		information safe	information safe <u>and what could happen if</u>
, ippropriate coc	platform	information sate	your personal information is not kept safely
	To the Alexander of the Continuous Assets	To an investment of the first of the second or the second	your personal information is not kept safely
	To use the internet safely to find appropriate	To understand who I should go to for support when	To an depart and only Talk and depart of the same and
	images	online and why I should do this	To understand who I should go to for support
		To understand what content and contact is unsafe when	when online and why I should do this <u>using</u>
			experiences in their own lives
		online and how you should act upon concerns	To a state of the construction of the first contract of
		To contain home and a control of the second	To <u>critically</u> understand what content and
		To explain how people can find out personal information	contact is unsafe when online and how you
		about you by what you put online	should act upon concerns by explaining their
			reasoning
		To use the internet safely by using keywords to search	
		for information	To <u>confidently</u> explain how people can find out
			personal information about you by what you put
		To explain how we act if we are being bullied online	online
			<u> </u>
			To <u>accurately and effectively</u> use the
			internet safely by using keywords to search
			for information
			To explain how we act if we are being bullied
			online and why we acted that way

SPRING UNIT	Key generic learning	Unit specific learning objectives	KS1 working at the <b>EXPECTED</b>	KS1 working <b>ABOVE</b> the
	objectives		STANDARD	expected standard

Light and Dark: Living in Victorian Sunderland	Understanding and Creating Algorithms  Digital Content and the Internet	<ul> <li>To begin to understand and demonstrate what algorithms are</li> <li>To press buttons to create an algorithm for a robot or program</li> <li>To begin to use software/apps to create precise programs</li> <li>To begin to predict what will happen in a short sequence of instructions using logical reasoning</li> <li>To begin to understand and demonstrate what debug is</li> <li>To begin to use technology to create, organise and present my work</li> <li>To understand how to use information from the internet in my work</li> <li>To use a keyboard on a digital device to type text</li> <li>To begin to save and retrieve digital content on an online platform</li> </ul>	To give precise and simple instructions to a friends to make them move (forwards, backwards, turn right, turn left)  To explain the order of a set of instructions as an algorithm  To read an algorithm and demonstrate what will happen  To program a robot to do a specific task by using a precise algorithm  To use programming software to create simple programs  To use logical reasoning to predict the behaviour of simple programs  To watch an algorithm and debug to make an algorithm precise  To use technology to collect information (text, photos, videos and sounds)  To use technology to create, organise and present my work  To use information that I have found on the internet  To be creative using different technology (shapes)  To use a keyboard to add, delete and space text  To save and retrieve digital content on an online platform  To make and save spreadsheets created on a digital device  To begin to use charts and graphs to represent data  To begin to use branching database	To give precise and simple instructions to a friends to make them move (forwards, backwards, turn right, turn left) consistently  To explain the order of a set of instructions as an algorithm and begin to break instructions down into smaller parts  To confidently read an algorithm and demonstrate what will happen  To program a robot to do a specific task by using a precise algorithm consistently and explain their thinking  To consistently use a range of programming software to create simple programs  To watch an algorithm and, consistently and confidently debug to make an algorithm precise  To effectively use technology to collect information (text, photos, videos and sounds)  To confidently and consistently use information that I have found on the internet  To be consistently creative using different technology (shapes)  To use a keyboard to add, delete and space text with increasing confidence  To consistently make and save spreadsheets created on a digital device  To use charts and graphs to represent data
				To use charts and graphs to represent data without adult support  To use branching database without adult support
	Understanding the Application of IT	<ul> <li>To use website links to find information</li> <li>To begin to understand the benefits of using technology</li> <li>To recognise ways that technology is used at home</li> </ul>	To identify and explain the benefits of using technology  To explain how the real world is different to the online world  To explain how I can share my work online with others	To <u>confidently</u> identify and explain the benefits of using technology <u>and explain why the technology is beneficial</u> To explain how the real world is different to the online world <u>and reason the understanding</u>

	٠	To understand how to make an internet search	To explain what inputs and outputs are  To explain why you use technology in the classroom  To explain why technology is used in the local area  To recognise common uses of information technology outside of school  To make simple internet searches to find information  To retrieve information from the internet to investigate questions	To <u>confidently</u> explain how I can share my work online with others  To explain what inputs and outputs are <u>in detail</u> To explain <u>and compare</u> why you use technology in the classroom  To explain <u>and compare</u> why technology is used in the local area  To recognise <u>and compare</u> common uses of information technology outside of school
Online Safety and Appropriate Use	•	To use technology safely and respectfully  To know what personal information is and how to keep it safe  To understand who I should go to if I need help online	To use technology safely and respectfully  To explain why it is important to keep personal information safe  To understand who I should go to for support when online and why I should do this  To understand what content and contact is unsafe when online and how you should act upon concerns  To explain how people can find out personal information about you by what you put online  To use the internet safely by using keywords to search for information  To explain how we act if we are being bullied online	To accurately make simple internet searches to find information using specific keywords  To accurately retrieve information from the internet to investigate questions and check its relevance  To use technology safely and respectfully with confidence To explain why it is important to keep personal information safe and what could happen if your personal information is not kept safely  To understand who I should go to for support when online and why I should do this using experiences in their own lives  To critically understand what content and contact is unsafe when online and how you should act upon concerns by explaining their reasoning  To confidently explain how people can find out personal information about you by what you put online  To accurately and effectively use the internet safely by using keywords to search for information  To explain how we act if we are being bullied online and why we acted that way

SUMMER UNIT	Key generic learning	Unit specific learning objectives	KS1 working at the <b>EXPECTED</b>	KS1 working ABOVE the
	objectives		STANDARD	expected standard

The Seaside: Sunderland's History	Understanding and Creating Algorithms  Digital Content and the Internet	To begin to understand and demonstrate what algorithms are  To press buttons to create an algorithm for a robot or program  To begin to use software/apps to create precise programs  To begin to predict what will happen in a short sequence of instructions using logical reasoning  To begin to understand and demonstrate what debug is  To understand how to use information from the internet in my work  To use a keyboard on a digital device to type text  To begin to be creative using different technology tools  To begin to save and retrieve digital content on an online platform  To use a spreadsheet to represent data	To give precise and simple instructions to a friends to make them move (forwards, backwards, turn right, turn left)  To explain the order of a set of instructions as an algorithm  To read an algorithm and demonstrate what will happen  To program a robot to do a specific task by using a precise algorithm  To use programming software to create simple programs  To use logical reasoning to predict the behaviour of simple programs  To watch an algorithm and debug to make an algorithm precise  To use technology to collect information (text, photos, videos and sounds)  To use technology to create, organise and present my work  To use information that I have found on the internet  To be creative using different technology (shapes)  To use a keyboard to add, delete and space text  To save and retrieve digital content on an online platform  To make and save spreadsheets created on a digital device  To begin to use charts and graphs to represent data  To begin to use branching database	To give precise and simple instructions to a friends to make them move (forwards, backwards, turn right, turn left) consistently  To explain the order of a set of instructions as an algorithm and begin to break instructions down into smaller parts  To confidently read an algorithm and demonstrate what will happen  To program a robot to do a specific task by using a precise algorithm consistently and explain their thinking  To consistently use a range of programming software to create simple programs  To watch an algorithm and, consistently and confidently debug to make an algorithm precise  To effectively use technology to collect information (text, photos, videos and sounds)  To effectively use technology to confidently create, organise and present my work  To confidently and consistently use information that I have found on the internet  To be consistently creative using different technology (shapes)  To use a keyboard to add, delete and space text with increasing confidence  To consistently save and retrieve digital content on an online platform without any adult support  To use charts and graphs to represent data without adult support  To use branching database without adult support
	Understanding the Application of IT	<ul> <li>To use website links to find information</li> <li>To begin to understand the benefits of using technology</li> <li>To recognise ways that technology is used within the local community</li> </ul>	To identify and explain the benefits of using technology  To explain how the real world is different to the online world  To explain how I can share my work online with others	To <u>confidently</u> identify and explain the benefits of using technology <u>and explain why the technology is beneficial</u> To explain how the real world is different to the online world <u>and reason the understanding</u>

				To confidently explain how I can share my
		To understand how to make an internet search	To explain what inputs and outputs are	work online with others
			To explain why you use technology in the classroom	To explain what inputs and outputs are <u>in</u> <u>detail</u>
			To explain why technology is used in the local area  To recognise common uses of information technology	To explain <u>and compare</u> why you use technology in the classroom
			outside of school  To make simple internet searches to find information	To explain <b>and compare</b> why technology is used in the local area
			To retrieve information from the internet to investigate questions	To recognise <u>and compare</u> common uses of information technology outside of school
				To <u>accurately</u> make simple internet searches to find information <u>using specific keywords</u>
				To <u>accurately</u> retrieve information from the internet to investigate questions <u>and check its</u> relevance
On	nline Safety and	To use technology safely and respectfully	To use technology safely and respectfully	To use technology safely and respectfully <u>with</u> <u>confidence</u>
Ар	ppropriate Use	<ul> <li>To understand who I should go to if I need help online</li> </ul>	To explain why it is important to keep personal information safe	To explain why it is important to keep personal information safe <u>and what could happen if</u> your personal information is not kept safely
		<ul> <li>To identify what is online bullying</li> </ul>	To understand who I should go to for support when online and why I should do this	To understand who I should go to for support when online and why I should do this <b>using</b>
			To understand what content and contact is unsafe when online and how you should act upon concerns	experiences in their own lives
			To explain how people can find out personal information about you by what you put online	To <u>critically</u> understand what content and contact is unsafe when online and how you should act upon concerns <u>by explaining their reasoning</u>
			To use the internet safely by using keywords to search for information	To <u>confidently</u> explain how people can find out personal information about you by what you put
			To explain how we act if we are being bullied online	online
				To <u>accurately and effectively</u> use the internet safely by using keywords to search for information
				To explain how we act if we are being bullied online and why we acted that way

	Key generic learning objectives	Unit specific learning objectives	KS1 working at the <b>EXPECTED STANDARD</b>	KS1 working <b>ABOVE</b> the expected standard
--	---------------------------------	-----------------------------------	---	--

Homes in Tudor times and the Great Fire of London	Understanding and Creating Algorithms	To give precise and simple instructions to a friends to make them move (forwards, backwards, turn right, turn left)  To explain the order of a set of instructions as an algorithm  To read an algorithm and demonstrate what will happen	To give precise and simple instructions to a friends to make them move (forwards, backwards, turn right, turn left)  To explain the order of a set of instructions as an algorithm  To read an algorithm and demonstrate what will happen  To program a robot to do a specific task by using a precise algorithm  To use programming software to create simple programs  To use logical reasoning to predict the behaviour of simple programs  To watch an algorithm and debug to make an algorithm precise	To give precise and simple instructions to a friends to make them move (forwards, backwards, turn right, turn left) consistently  To explain the order of a set of instructions as an algorithm and begin to break instructions down into smaller parts  To confidently read an algorithm and demonstrate what will happen  To program a robot to do a specific task by using a precise algorithm consistently and explain their thinking  To consistently use a range of programming software to create simple programs  To confidently use logical reasoning to predict the behaviour of simple programs  To watch an algorithm and, consistently and confidently debug to make an algorithm
	Digital Content and the Internet	To use technology to collect information (text, photos, videos and sounds)  To use technology to create, organise and present my work  To use information that I have found on the internet  To be creative using different technology (shapes)  To use a keyboard to add, delete and space text  To save and retrieve digital content on an online platform	To use technology to collect information (text, photos, videos and sounds)  To use technology to create, organise and present my work  To use information that I have found on the internet  To be creative using different technology (shapes)  To use a keyboard to add, delete and space text  To save and retrieve digital content on an online platform  To make and save spreadsheets created on a digital device  To begin to use charts and graphs to represent data  To begin to use branching database	To effectively use technology to collect information (text, photos, videos and sounds)  To effectively use technology to confidently create, organise and present my work  To confidently and consistently use information that I have found on the internet  To be consistently creative using different technology (shapes)  To use a keyboard to add, delete and space text with increasing confidence  To consistently save and retrieve digital content on an online platform without any adult support  To confidently make and save spreadsheets created on a digital device  To use charts and graphs to represent data without adult support  To use branching database without adult support
	Understanding the Application of IT	To identify and explain the benefits of using technology  To explain why you use technology in the classroom	To identify and explain the benefits of using technology  To explain how the real world is different to the online world  To explain how I can share my work online with others	To <u>confidently</u> identify and explain the benefits of using technology <u>and explain why</u> <u>the technology is beneficial</u> To explain how the real world is different to the online world <u>and reason the understanding</u>

			T
	<ul> <li>To make simple internet searches to find</li> </ul>		To <u>confidently</u> explain how I can share my
	information	To explain what inputs and outputs are	work online with others
	<ul> <li>To retrieve information from the internet to investigate questions</li> </ul>	To explain why you use technology in the classroom	To explain what inputs and outputs are <u>in</u> <u>detail</u>
		To explain why technology is used in the local area	To explain <b>and compare</b> why you use
		To recognise common uses of information technology outside of school	technology in the classroom
		To make simple internet searches to find information	To explain <u>and compare</u> why technology is used in the local area
		To retrieve information from the internet to investigate questions	To recognise <u>and compare</u> common uses of information technology outside of school
			To <u>accurately</u> make simple internet searches to find information <u>using specific keywords</u>
			To <u>accurately</u> retrieve information from the internet to investigate questions <u>and check its</u> relevance
Online Safety and	To use technology safely and respectfully	To use technology safely and respectfully	To use technology safely and respectfully with confidence
Appropriate Use	<ul> <li>To explain why it is important to keep personal information safe</li> </ul>	To explain why it is important to keep personal information safe	To explain why it is important to keep personal information safe <u>and what could happen if</u>
	To explain how people can find out personal information about you by what you put online	To understand who I should go to for support when online and why I should do this	your personal information is not kept safely  To understand who I should go to for support
	To use the internet safely by using keywords to search for information	To understand what content and contact is unsafe when online and how you should act upon concerns	when online and why I should do this <u>using</u> <u>experiences in their own lives</u>
	search for information		To <u>critically</u> understand what content and
		To explain how people can find out personal information about you by what you put online	contact is unsafe when online and how you should act upon concerns by explaining their reasoning
		To use the internet safely by using keywords to search for information	To <u>confidently</u> explain how people can find out
		To explain how we act if we are being bullied online	personal information about you by what you put online
			To <u>accurately and effectively</u> use the internet safely by using keywords to search for information
			To explain how we act if we are being bullied online and why we acted that way

SPRING UNIT	Key generic learning	Unit specific learning objectives	KS1 working at the <b>EXPECTED</b>	KS1 working <b>ABOVE</b> the
	objectives		STANDARD	expected standard

What I Believe: I have the right to a safe place to live.	Understanding and Creating Algorithms  Digital Content and the Internet	To program a robot to do a specific task by using a precise algorithm  To use programming software to create simple programs  To use logical reasoning to predict the behaviour of simple programs  To watch an algorithm and debug to make an algorithm precise  To use technology to collect information (text, photos, videos and sounds)  To use technology to create, organise and present my work  To use information that I have found on the internet  To be creative using different technology (shapes)  To use a keyboard to add, delete and space text To save and retrieve digital content on an online platform  To begin to use branching database	To give precise and simple instructions to a friends to make them move (forwards, backwards, turn right, turn left)  To explain the order of a set of instructions as an algorithm  To read an algorithm and demonstrate what will happen  To program a robot to do a specific task by using a precise algorithm  To use programming software to create simple programs  To use logical reasoning to predict the behaviour of simple programs  To watch an algorithm and debug to make an algorithm precise  To use technology to collect information (text, photos, videos and sounds)  To use technology to create, organise and present my work  To use information that I have found on the internet  To be creative using different technology (shapes)  To use a keyboard to add, delete and space text  To save and retrieve digital content on an online platform  To make and save spreadsheets created on a digital device  To begin to use charts and graphs to represent data  To begin to use branching database	To give precise and simple instructions to a friends to make them move (forwards, backwards, turn right, turn left) consistently  To explain the order of a set of instructions as an algorithm and begin to break instructions down into smaller parts  To confidently read an algorithm and demonstrate what will happen  To program a robot to do a specific task by using a precise algorithm consistently and explain their thinking  To consistently use a range of programming software to create simple programs  To confidently use logical reasoning to predict the behaviour of simple programs  To watch an algorithm and, consistently and confidently debug to make an algorithm precise  To effectively use technology to collect information (text, photos, videos and sounds)  To effectively use technology to confidently create, organise and present my work  To confidently and consistently use information that I have found on the internet  To be consistently creative using different technology (shapes)  To use a keyboard to add, delete and space text with increasing confidence  To consistently save and retrieve digital content on an online platform without any adult support  To confidently make and save spreadsheets created on a digital device  To use charts and graphs to represent data without adult support  To use branching database without adult support
	Understanding the Application of IT	To explain why technology is used in the local area  To recognise common uses of information technology outside of school To make simple internet searches to find information	To identify and explain the benefits of using technology  To explain how the real world is different to the online world  To explain how I can share my work online with others	To <u>confidently</u> identify and explain the benefits of using technology <u>and explain why</u> <u>the technology is beneficial</u> To explain how the real world is different to the online world <u>and reason the understanding</u>

Online Safety and Appropriate Use	To use technology safely and respectfully  To understand who I should go to for support when online and why I should do this  To understand what content and contact is unsafe when online and how you should act upon concerns  To use the internet safely by using keywords to search for information	To explain what inputs and outputs are To explain why you use technology in the classroom To explain why technology is used in the local area To recognise common uses of information technology outside of school To make simple internet searches to find information To retrieve information from the internet to investigate questions  To use technology safely and respectfully To explain why it is important to keep personal information safe To understand who I should go to for support when online and why I should do this To understand what content and contact is unsafe when online and how you should act upon concerns To explain how people can find out personal information about you by what you put online To use the internet safely by using keywords to search for information To explain how we act if we are being bullied online	To confidently explain how I can share my work online with others  To explain what inputs and outputs are in detail  To explain and compare why you use technology in the classroom  To explain and compare why technology is used in the local area  To recognise and compare common uses of information technology outside of school  To accurately make simple internet searches to find information using specific keywords  To accurately retrieve information from the internet to investigate questions and check its relevance  To use technology safely and respectfully with confidence  To explain why it is important to keep personal information safe and what could happen if your personal information is not kept safely  To understand who I should go to for support when online and why I should do this using experiences in their own lives  To critically understand what content and contact is unsafe when online and how you should act upon concerns by explaining their reasoning  To confidently explain how people can find out personal information about you by what you put online  To accurately and effectively use the internet safely by using keywords to search for information  To explain how we act if we are being bullied online and why we acted that way
-----------------------------------	---	---	--

SUMMER UNIT	Key generic learning	Unit specific learning objectives	KS1 working at the <b>EXPECTED</b>	KS1 working ABOVE the
	objectives		STANDARD	expected standard

Transport: Planes, trains and automobiles	Understanding and Creating Algorithms  Digital Content and the Internet	To program a robot to do a specific task by using a precise algorithm  To use programming software to create simple programs  To use logical reasoning to predict the behaviour of simple programs  To watch an algorithm and debug to make an algorithm precise  To use technology to create, organise and present my work  To use information that I have found on the internet  To use a keyboard to add, delete and space text  To save and retrieve digital content on an online platform  To make and save spreadsheets created on a digital device  To begin to use charts and graphs to represent data	To give precise and simple instructions to a friends to make them move (forwards, backwards, turn right, turn left)  To explain the order of a set of instructions as an algorithm  To read an algorithm and demonstrate what will happen  To program a robot to do a specific task by using a precise algorithm  To use programming software to create simple programs  To use logical reasoning to predict the behaviour of simple programs  To watch an algorithm and debug to make an algorithm precise  To use technology to collect information (text, photos, videos and sounds)  To use technology to create, organise and present my work  To use information that I have found on the internet  To be creative using different technology (shapes)  To use a keyboard to add, delete and space text  To save and retrieve digital content on an online platform	To give precise and simple instructions to a friends to make them move (forwards, backwards, turn right, turn left) consistently  To explain the order of a set of instructions as an algorithm and begin to break instructions down into smaller parts  To confidently read an algorithm and demonstrate what will happen  To program a robot to do a specific task by using a precise algorithm consistently and explain their thinking  To consistently use a range of programming software to create simple programs  To confidently use logical reasoning to predict the behaviour of simple programs  To watch an algorithm and, consistently and confidently debug to make an algorithm precise  To effectively use technology to collect information (text, photos, videos and sounds)  To effectively use technology to confidently create, organise and present my work  To confidently and consistently use information that I have found on the internet  To be consistently creative using different technology (shapes)  To use a keyboard to add, delete and space text with increasing confidence
			To make and save spreadsheets created on a digital device  To begin to use charts and graphs to represent data  To begin to use branching database	To <u>consistently</u> save and retrieve digital content on an online platform <u>without any adult support</u> To <u>confidently</u> make and save spreadsheets created on a digital device
				To use charts and graphs to represent data without adult support  To use branching database without adult support
	Understanding the Application of IT	To explain how the real world is different to the online world	To identify and explain the benefits of using technology	To <u>confidently</u> identify and explain the benefits of using technology <u>and explain why</u> <u>the technology is beneficial</u>
	Application of the	<ul> <li>To explain how I can share my work online with others</li> </ul>	To explain how the real world is different to the online world	To explain how the real world is different to the online world and reason the understanding

	•	To make simple internet searches to find information  To retrieve information from the internet to investigate questions	To explain what inputs and outputs are  To explain why you use technology in the classroom  To explain why technology is used in the local area  To recognise common uses of information technology outside of school  To make simple internet searches to find information  To retrieve information from the internet to investigate questions	To confidently explain how I can share my work online with others  To explain what inputs and outputs are indetail  To explain and compare why you use technology in the classroom  To explain and compare why technology is used in the local area  To recognise and compare common uses of information technology outside of school  To accurately make simple internet searches to find information using specific keywords  To accurately retrieve information from the internet to investigate questions and check its relevance  To use technology safely and respectfully with
Online Safe Appropriate		To use the internet safely by using keywords to search for information  To explain how we act if we are being bullied online	To explain why it is important to keep personal information safe  To understand who I should go to for support when online and why I should do this  To understand what content and contact is unsafe when online and how you should act upon concerns  To explain how people can find out personal information about you by what you put online  To use the internet safely by using keywords to search for information  To explain how we act if we are being bullied online	confidence To explain why it is important to keep personal information safe and what could happen if your personal information is not kept safely To understand who I should go to for support when online and why I should do this using experiences in their own lives  To critically understand what content and contact is unsafe when online and how you should act upon concerns by explaining their reasoning  To confidently explain how people can find out personal information about you by what you put online To accurately and effectively use the internet safely by using keywords to search for information  To explain how we act if we are being bullied online and why we acted that way

Over 2000 years ago Stone, Bronze and Iron Age	Understanding and Creating Algorithms	To decompose an open-ended problem into smaller parts  To sequence instructions to complete a specific outcome	To use logical reasoning to decompose an open-ended problem into smaller parts  To use algorithms to solve complex problems  To use logical reasoning to simplify a program  To explain the input and output to program a	To <u>effectively</u> use logical reasoning to decompose an open-ended problem into smaller parts <u>and begin to identify patterns</u> To use <u>precise</u> , <u>accurate and logical</u> algorithms to solve complex problems  To use logical reasoning to simplify a program
			robot/software  To use a sensor within an algorithm  To use a variety of commands to create a precise program  To detect errors in an algorithm and debug an algorithm using abstraction  To evaluate the effectiveness of a program and why a program is suitable	consistently and effectively  To explain the input and output to program a robot/software and explain how the input affects the output  To confidently use a sensor within an algorithm  To use a variety of commands to create a precise program with greater accuracy and consistency  To accurately detect errors in an algorithm and precisely debug an algorithm using abstraction  To evaluate the effectiveness of a program
	Digital Content and the Internet	To use technology to collect information (text, photos, videos, sounds) g for a specific purpose)  To evaluate digital work and explain how to improve it  To understand how to modify a template and use a range of tools to create a piece of work  To effectively use information that I have found on the internet	To create work using a range of text, pictorial and audio for a specific purpose and audience  To modify a template and use a range of tools to create a piece of work for a specific purpose  To critically evaluate the effectiveness of my work  To begin to use transitions and animations when	and why a program is suitable and unsuitable to achieve a specific outcome  To effectively create work using a range of text, pictorial and audio for a specific purpose and audience  To effectively modify a template and confidently use a range of tools to create a piece of work for a specific purpose  To critically evaluate the effectiveness of my
		To be creative when creating work online using a range of different effects (font, letter size, colour, etc.)  To use appropriate keyboard commands to amend text (capitalisation, paragraphs, etc.)  To use the spellcheck tool  To use technology creatively when creating work online using a range of different effects (font, letter size, colour, etc.)  To save, store and retrieve work on an online platform or school network	creating presentations  To confidently use information, I have found on the internet and check its reliability  To use technology creatively when creating work online using a range of different effects appropriately (font, letter size, colour, etc.)  To use a keyboard confidently and use spellchecker to review my work	work and why my work is good and how I could improve it  To to use transitions and animations when creating presentations  To confidently use information, I have found on the internet and check its reliability with increasing confidence  To effectively use technology creatively when creating work online using a range of different
		To create a database and add data to it	To change the appearance of text to increase its effectiveness for a specific purpose  To save, store and retrieve work on an online platform or school network  To describe and explain different ways data can be organised digitally for different purposes (charts/graphs)	effects appropriately (font, letter size, colour, etc.) with confidence  To use a keyboard confidently and effectively use spellchecker to review my work  To effectively and consistently change the appearance of text to increase its effectiveness for a specific purpose

	<ul> <li>To explain ways to communicate with others</li> </ul>	To plan, create and search a database to answer questions  I can collect data and identify when data could be inaccurate  To collect data for a specific purpose and present data using an appropriate way	To confidently and consistently save, store and retrieve work on an online platform or school network without adult support  To confidently describe and explain different ways data can be organised digitally for different purposes (charts/graphs) and why data is presented in a specific way  To logically and effectively plan, create and search a database to answer questions  To confidently collect data and consistently identify when data could be inaccurate  To confidently collect data for a specific purpose and present data effectively using an appropriate way  To confidently describe whether I am using
Understanding the Application of IT	online  To understand how people, collaborate online  To use search engines to find appropriate websites  To evaluate if an image from online is appropriate for a specific purpose	internet, school network or a digital device  To choose which digital application to use to meet a purpose  To explain the design of a web-page and the external links  To choose an appropriate online platform to collaborate with others  To create a hyperlink to a website on the World Wide Web  To use search engines to find appropriate websites using specific keywords  To understand and check who owns images and text on the internet  To identify key words to use when searching the World Wide Web safely	something from the internet, school network or a digital device  To choose which digital application to use to meet a purpose and explain my choice  To explain the design of a web-page and the external links by making links with others  To critically choose an appropriate online platform to collaborate with others and explain my choice  To confidently and consistently create a hyperlink to a website on the World Wide Web To use search engines effectively and accurately to find appropriate websites using specific keywords  To understand and check who owns images and text on the internet and explain how you know  To effectively and accurately identify key words to use when searching the World Wide Web safely
Online Safety and Appropriate Use	<ul> <li>To use technology safely, responsibly and respectfully</li> <li>To recognise acceptable and unacceptable behaviour online</li> <li>To understand how to report content and concerns</li> <li>To identify online bullying using a range of digital devices</li> </ul>	To use technology safely, responsibly and respectfully To recognise and describe acceptable and unacceptable behaviour online To understand how and why to report content and concerns To describe how online message can be hurtful To explore online plagiarism To explore online games and whether they are age appropriate	To use technology safely, responsibly and respectfully with confidence  To accurately recognise and confidently describe acceptable and unacceptable behaviour online  To understand how and why to report content and concerns in detail  To describe how and why online message can be hurtful

	To create a safe online profile	To explore online plagiarism <u>and why it is</u> important
	To describe how to be a good digital citizen online and in real life	To <u>critically</u> explore online games and whether they are age appropriate <u>and explain why</u>
		To <u>effectively</u> create a safe <u>and secure</u> online profile
		To describe how to be a good digital citizen online and in real life <u>by making comparisons</u> <u>between reality and virtual</u>

SPRING UNIT	Key generic learning objectives	Unit specific learning objectives	Lower KS2 working at the EXPECTED STANDARD	Lower KS2 working ABOVE the expected standard
Along the river	Understanding and Creating Algorithms	To use repeat commands to make an algorithm more precise  To use appropriate programming software or app to achieve specific outcomes  To identify patterns within a program  To detect errors in an algorithm and debug an algorithm	To use logical reasoning to decompose an open-ended problem into smaller parts  To use algorithms to solve complex problems  To use logical reasoning to simplify a program  To explain the input and output to program a robot/software  To use a sensor within an algorithm  To use a variety of commands to create a precise program  To detect errors in an algorithm and debug an algorithm using abstraction  To evaluate the effectiveness of a program and why a program is suitable	To effectively use logical reasoning to decompose an open-ended problem into smaller parts and begin to identify patterns  To use precise, accurate and logical algorithms to solve complex problems  To use logical reasoning to simplify a program consistently and effectively  To explain the input and output to program a robot/software and explain how the input affects the output  To confidently use a sensor within an algorithm  To use a variety of commands to create a precise program with greater accuracy and consistency  To accurately detect errors in an algorithm and precisely debug an algorithm using abstraction  To evaluate the effectiveness of a program and why a program is suitable and unsuitable to achieve a specific outcome
	Digital Content and the Internet	To use technology to collect information (text, photos, videos, sounds) g for a specific purpose)  To evaluate digital work and explain how to improve it  To understand how to modify a template and use a range of tools to create a piece of work  To effectively use information that I have found on the internet	To create work using a range of text, pictorial and audio for a specific purpose and audience  To modify a template and use a range of tools to create a piece of work for a specific purpose  To critically evaluate the effectiveness of my work  To begin to use transitions and animations when creating presentations	To <u>effectively</u> create work using a range of text, pictorial and audio for a specific purpose and audience  To <u>effectively</u> modify a template and <u>confidently</u> use a range of tools to create a piece of work for a specific purpose

	To be creative when creating work online using a range of different effects (font, letter size, colour, etc.)  To use appropriate keyboard commands to amend text (capitalisation, paragraphs, etc.)  To use the spellcheck tool  To use technology creatively when creating work online using a range of different effects (font, letter size, colour, etc.)  To save, store and retrieve work on an online platform or school network	To confidently use information, I have found on the internet and check its reliability  To use technology creatively when creating work online using a range of different effects appropriately (font, letter size, colour, etc.)  To use a keyboard confidently and use spellchecker to review my work  To change the appearance of text to increase its effectiveness for a specific purpose  To save, store and retrieve work on an online platform or school network  To describe and explain different ways data can be organised digitally for different purposes (charts/graphs)  To plan, create and search a database to answer questions	To critically evaluate the effectiveness of my work and why my work is good and how I could improve it  To to use transitions and animations when creating presentations  To confidently use information, I have found on the internet and check its reliability with increasing confidence  To effectively use technology creatively when creating work online using a range of different effects appropriately (font, letter size, colour, etc.) with confidence  To use a keyboard confidently and effectively use spellchecker to review my work  To effectively and consistently change the appearance of text to increase its effectiveness for a specific purpose  To confidently and consistently save, store
		I can collect data and identify when data could be inaccurate  To collect data for a specific purpose and present data using an appropriate way	and retrieve work on an online platform or school network without adult support  To confidently describe and explain different ways data can be organised digitally for different purposes (charts/graphs) and why data is presented in a specific way  To logically and effectively plan, create and search a database to answer questions  To confidently collect data and consistently identify when data could be inaccurate  To confidently collect data for a specific purpose and present data effectively using an
Understandin Application o	F : 10: 1 : 11 1:00 : 1 : 1	To describe whether I am using something from the internet, school network or a digital device  To choose which digital application to use to meet a purpose  To explain the design of a web-page and the external links  To choose an appropriate online platform to collaborate with others  To create a hyperlink to a website on the World Wide Web  To use search engines to find appropriate websites using specific keywords	appropriate way  To confidently describe whether I am using something from the internet, school network or a digital device  To choose which digital application to use to meet a purpose and explain my choice  To explain the design of a web-page and the external links by making links with others  To critically choose an appropriate online platform to collaborate with others and explain my choice  To confidently and consistently create a hyperlink to a website on the World Wide Web

Online Safe	To use technology safely, responsibly ar respectfully		To use search engines effectively and accurately to find appropriate websites using specific keywords  To understand and check who owns images and text on the internet and explain how you know  To effectively and accurately identify key words to use when searching the World Wide Web safely  To use technology safely, responsibly and respectfully with confidence
Appropriate		To recognise and describe acceptable and unacceptable behaviour online  To understand how and why to report content and concerns  To describe how online message can be hurtful  To explore online plagiarism  To explore online games and whether they are age appropriate  To create a safe online profile  To describe how to be a good digital citizen online and in real life	To accurately recognise and confidently describe acceptable and unacceptable behaviour online  To understand how and why to report content and concerns in detail  To describe how and why online message can be hurtful  To explore online plagiarism and why it is important  To critically explore online games and whether they are age appropriate and explain why  To effectively create a safe and secure online profile  To describe how to be a good digital citizen online and in real life by making comparisons

SUMMER UNIT	Key generic learning objectives	Unit specific learning objectives	Lower KS2 working at the EXPECTED STANDARD	Lower KS2 working ABOVE the expected standard
What I Believe: The right to choose religion and beliefs [exploring	Understanding and Creating Algorithms	To use appropriate programming software or app to achieve specific outcomes  To debug programs and keep testing a program until it achieves a specific goal  To evaluate the effectiveness of a program	To use logical reasoning to decompose an open-ended problem into smaller parts  To use algorithms to solve complex problems  To use logical reasoning to simplify a program  To explain the input and output to program a robot/software  To use a sensor within an algorithm	To <u>effectively</u> use logical reasoning to decompose an open-ended problem into smaller parts <u>and begin to identify patterns</u> To use <u>precise</u> , <u>accurate and logical</u> algorithms to solve complex problems  To use logical reasoning to simplify a program <u>consistently and effectively</u>

religion around the world]			To use a variety of commands to create a precise program  To detect errors in an algorithm and debug an algorithm using abstraction  To evaluate the effectiveness of a program and why a program is suitable	To explain the input and output to program a robot/software and explain how the input affects the output  To confidently use a sensor within an algorithm  To use a variety of commands to create a precise program with greater accuracy and consistency  To accurately detect errors in an algorithm and precisely debug an algorithm using abstraction  To evaluate the effectiveness of a program and why a program is suitable and unsuitable to achieve a specific outcome
	Digital Content and the Internet	<ul> <li>To effectively use information that I have found on the internet</li> <li>To be creative when creating work online using a range of different effects (font, letter size, colour, etc.)</li> <li>To use appropriate keyboard commands to amend text (capitalisation, paragraphs, etc.)</li> <li>To use the spellcheck tool</li> <li>To save, store and retrieve work on an online platform or school network</li> <li>To create a database and add data to it</li> <li>To describe different ways data can be organised digitally (charts/graphs)</li> <li>To search a ready-made database to gather information</li> <li>To create a branching database using digital tools</li> </ul>	To create work using a range of text, pictorial and audio for a specific purpose and audience  To modify a template and use a range of tools to create a piece of work for a specific purpose  To critically evaluate the effectiveness of my work  To begin to use transitions and animations when creating presentations  To confidently use information, I have found on the internet and check its reliability  To use technology creatively when creating work online using a range of different effects appropriately (font, letter size, colour, etc.)  To use a keyboard confidently and use spellchecker to review my work  To change the appearance of text to increase its effectiveness for a specific purpose  To save, store and retrieve work on an online platform or school network  To describe and explain different ways data can be organised digitally for different purposes (charts/graphs)  To plan, create and search a database to answer questions  I can collect data and identify when data could be inaccurate  To collect data for a specific purpose and present data using an appropriate way	To effectively create work using a range of text, pictorial and audio for a specific purpose and audience  To effectively modify a template and confidently use a range of tools to create a piece of work for a specific purpose  To critically evaluate the effectiveness of my work and why my work is good and how I could improve it  To to use transitions and animations when creating presentations  To confidently use information, I have found on the internet and check its reliability with increasing confidence  To effectively use technology creatively when creating work online using a range of different effects appropriately (font, letter size, colour, etc.) with confidence  To use a keyboard confidently and effectively use spellchecker to review my work  To effectively and consistently change the appearance of text to increase its effectiveness for a specific purpose  To confidently and consistently save, store and retrieve work on an online platform or school network without adult support  To confidently describe and explain different ways data can be organised digitally for different purposes (charts/graphs) and why data is presented in a specific way

			To <u>logically and effectively</u> plan, create and search a database to answer questions
			To <u>confidently</u> collect data and <u>consistently</u> identify when data could be inaccurate
			To <u>confidently</u> collect data for a specific purpose and present data <u>effectively</u> using an
Understanding the	To describe the World Wide Web as part of the internet that contains websites	To describe whether I am using something from the internet, school network or a digital device	appropriate way  To <u>confidently</u> describe whether I am using something from the internet, school network or a digital device
Application of IT	<ul> <li>To use search engines to find appropriate websites</li> </ul>	To choose which digital application to use to meet a purpose	To choose which digital application to use to meet a purpose and explain my choice
	<ul> <li>To evaluate if an image from online is appropriate for a specific purpose</li> </ul>	To explain the design of a web-page and the external links	To explain the design of a web-page and the external links by making links with others
		To choose an appropriate online platform to collaborate with others	To <u>critically</u> choose an appropriate online platform to collaborate with others <u>and</u>
		To create a hyperlink to a website on the World Wide Web To use search engines to find appropriate websites using specific keywords	explain my choice  To confidently and consistently create a hyperlink to a website on the World Wide Web
		To understand and check who owns images and text on the internet	To use search engines <u>effectively and</u> <u>accurately</u> to find appropriate websites using specific keywords
		To identify key words to use when searching the World Wide Web safely	To understand and check who owns images and text on the internet and explain how you
			know  To <u>effectively and accurately</u> identify key words to use when searching the World Wide
Online Safety and	To use technology safely, responsibly and respectfully	To use technology safely, responsibly and respectfully	Web safely  To use technology safely, responsibly and respectfully with confidence
Appropriate Use	To identify online advertisements and their purpose	To recognise and describe acceptable and unacceptable behaviour online	To <u>accurately</u> recognise and <u>confidently</u> describe acceptable and unacceptable
	To describe how to be a good digital citizen	To understand how and why to report content and concerns	behaviour online
		To describe how online message can be hurtful	To understand how and why to report content and concerns <u>in detail</u>
		To explore online plagiarism  To explore online games and whether they are age	To describe how <u>and why</u> online message can be hurtful
		appropriate  To create a safe online profile	To explore online plagiarism and why it is important
		To describe how to be a good digital citizen online and in real life	To <u>critically</u> explore online games and whether they are age appropriate <u>and explain why</u>
			To <u>effectively</u> create a safe <u>and secure</u> online profile

		To describe how to be a good digital citizen
		online and in real life by making comparisons
		between reality and virtual

AUTUMN UNIT	Key generic learning objectives	Unit specific learning objectives	Lower KS2 working at the EXPECTED STANDARD	Lower KS2 working ABOVE the expected standard
The Ancient Greeks	Understanding and Creating Algorithms	<ul> <li>To use logical reasoning to decompose an open-ended problem into smaller parts</li> <li>To use algorithms to solve complex problems</li> </ul>	To use logical reasoning to decompose an open-ended problem into smaller parts  To use algorithms to solve complex problems  To use logical reasoning to simplify a program  To explain the input and output to program a robot/software  To use a sensor within an algorithm  To use a variety of commands to create a precise program  To detect errors in an algorithm and debug an algorithm using abstraction  To evaluate the effectiveness of a program and why a program is suitable	To effectively use logical reasoning to decompose an open-ended problem into smaller parts and begin to identify patterns  To use precise, accurate and logical algorithms to solve complex problems  To use logical reasoning to simplify a program consistently and effectively  To explain the input and output to program a robot/software and explain how the input affects the output  To confidently use a sensor within an algorithm  To use a variety of commands to create a precise program with greater accuracy and consistency  To accurately detect errors in an algorithm and precisely debug an algorithm using abstraction

Digital Content and the Internet	To create work using a range of text, pictorial and audio for a specific purpose and audience To modify a template and use a range of tools to create a piece of work for a specific purpose  To critically evaluate the effectiveness of my work To begin to use transitions and animations when creating presentations  To effectively use information, I have found on the internet and check its reliability  To use technology creatively when creating work online using a range of different effects appropriately (font, letter size, colour, etc.)  To use a keyboard confidently and use spellchecker to review my work  To change the appearance of text to increase its effectiveness for a specific purpose  To save, store and retrieve work on an online platform or school network	To create work using a range of text, pictorial and audio for a specific purpose and audience  To modify a template and use a range of tools to create a piece of work for a specific purpose  To critically evaluate the effectiveness of my work  To begin to use transitions and animations when creating presentations  To confidently use information, I have found on the internet and check its reliability  To use technology creatively when creating work online using a range of different effects appropriately (font, letter size, colour, etc.)  To use a keyboard confidently and use spellchecker to review my work  To change the appearance of text to increase its effectiveness for a specific purpose	To evaluate the effectiveness of a program and why a program is suitable and unsuitable to achieve a specific outcome  To effectively create work using a range of text, pictorial and audio for a specific purpose and audience  To effectively modify a template and confidently use a range of tools to create a piece of work for a specific purpose  To critically evaluate the effectiveness of my work and why my work is good and how I could improve it  To to use transitions and animations when creating presentations  To confidently use information, I have found on the internet and check its reliability with increasing confidence  To effectively use technology creatively when creating work online using a range of different effects appropriately (font, letter size, colour, etc.) with confidence
		To describe and explain different ways data can be organised digitally for different purposes (charts/graphs)  To plan, create and search a database to answer questions  I can collect data and identify when data could be inaccurate  To collect data for a specific purpose and present data using an appropriate way	appearance of text to increase its effectiveness for a specific purpose  To confidently and consistently save, store and retrieve work on an online platform or school network without adult support  To confidently describe and explain different ways data can be organised digitally for different purposes (charts/graphs) and why data is presented in a specific way  To logically and effectively plan, create and search a database to answer questions  To confidently collect data and consistently identify when data could be inaccurate  To confidently collect data for a specific purpose and present data effectively using an appropriate way

Understanding the Application of IT	<ul> <li>To describe whether I am using something from the internet, school network or a digital device</li> <li>To choose which digital application to use to meet a purpose</li> <li>To use search engines to find appropriate websites using specific keywords</li> <li>To understand and check who owns images and text on the internet</li> <li>To identify key words to use when searching the World Wide Web safely</li> </ul>	To describe whether I am using something from the internet, school network or a digital device  To choose which digital application to use to meet a purpose  To explain the design of a web-page and the external links  To choose an appropriate online platform to collaborate with others  To create a hyperlink to a website on the World Wide Web  To use search engines to find appropriate websites using specific keywords  To understand and check who owns images and text on the internet  To identify key words to use when searching the World Wide Web safely	To confidently describe whether I am using something from the internet, school network or a digital device  To choose which digital application to use to meet a purpose and explain my choice  To explain the design of a web-page and the external links by making links with others  To critically choose an appropriate online platform to collaborate with others and explain my choice  To confidently and consistently create a hyperlink to a website on the World Wide Web To use search engines effectively and accurately to find appropriate websites using specific keywords  To understand and check who owns images and text on the internet and explain how you know  To effectively and accurately identify key words to use when searching the World Wide
Online Safety and Appropriate Use	<ul> <li>To use technology safely, responsibly and respectfully</li> <li>To recognise and describe acceptable and unacceptable behaviour online</li> <li>To understand how and why to report content and concerns</li> <li>To describe how online message can be hurtful</li> <li>To explore online games and whether they are age appropriate</li> </ul>	To use technology safely, responsibly and respectfully To recognise and describe acceptable and unacceptable behaviour online To understand how and why to report content and concerns To describe how online message can be hurtful To explore online plagiarism To explore online games and whether they are age appropriate To create a safe online profile To describe how to be a good digital citizen online and in real life	Web safely  To use technology safely, responsibly and respectfully with confidence  To accurately recognise and confidently describe acceptable and unacceptable behaviour online  To understand how and why to report content and concerns in detail  To describe how and why online message can be hurtful  To explore online plagiarism and why it is important  To critically explore online games and whether they are age appropriate and explain why  To effectively create a safe and secure online profile  To describe how to be a good digital citizen online and in real life by making comparisons between reality and virtual

SPRING UNIT	Key generic learning objectives	Unit specific learning objectives	Lower KS2 working at the EXPECTED STANDARD	Lower KS2 working ABOVE the expected standard
What did the Roman's do for us?	Understanding and Creating Algorithms	To use logical reasoning to simplify a program  To explain the input and output to program a robot/software  To use a sensor within an algorithm	To use logical reasoning to decompose an open-ended problem into smaller parts  To use algorithms to solve complex problems  To use logical reasoning to simplify a program  To explain the input and output to program a robot/software  To use a sensor within an algorithm  To use a variety of commands to create a precise program  To detect errors in an algorithm and debug an algorithm using abstraction  To evaluate the effectiveness of a program and why a program is suitable	To effectively use logical reasoning to decompose an open-ended problem into smaller parts and begin to identify patterns  To use precise, accurate and logical algorithms to solve complex problems  To use logical reasoning to simplify a program consistently and effectively  To explain the input and output to program a robot/software and explain how the input affects the output  To confidently use a sensor within an algorithm  To use a variety of commands to create a precise program with greater accuracy and consistency  To accurately detect errors in an algorithm and precisely debug an algorithm using abstraction  To evaluate the effectiveness of a program and why a program is suitable and unsuitable to achieve a specific outcome
	Digital Content and the Internet	To create work using a range of text, pictorial and audio for a specific purpose and audience  To modify a template and use a range of tools to create a piece of work for a specific purpose  To critically evaluate the effectiveness of my work  To begin to use transitions and animations when creating presentations  To effectively use information, I have found on the internet and check its reliability  To use technology creatively when creating work online using a range of different effects appropriately (font, letter size, colour, etc.)  To use a keyboard confidently and use spellchecker to review my work  To change the appearance of text to increase its effectiveness for a specific purpose	To create work using a range of text, pictorial and audio for a specific purpose and audience  To modify a template and use a range of tools to create a piece of work for a specific purpose  To critically evaluate the effectiveness of my work  To begin to use transitions and animations when creating presentations  To confidently use information, I have found on the internet and check its reliability  To use technology creatively when creating work online using a range of different effects appropriately (font, letter size, colour, etc.)	To effectively create work using a range of text, pictorial and audio for a specific purpose and audience  To effectively modify a template and confidently use a range of tools to create a piece of work for a specific purpose  To critically evaluate the effectiveness of my work and why my work is good and how I could improve it  To to use transitions and animations when creating presentations  To confidently use information, I have found on the internet and check its reliability with increasing confidence

Understanding the Application of IT	To choose which digital application to use to meet a purpose  To explain the design of a web-page and the external links  To create a hyperlink to a website on the World Wide Web  To use search engines to find appropriate websites using specific keywords  To identify key words to use when searching the World Wide Web  World Wide Web safely	To use a keyboard confidently and use spellchecker to review my work  To change the appearance of text to increase its effectiveness for a specific purpose  To save, store and retrieve work on an online platform or school network  To describe and explain different ways data can be organised digitally for different purposes (charts/graphs)  To plan, create and search a database to answer questions  I can collect data and identify when data could be inaccurate  To collect data for a specific purpose and present data using an appropriate way  To describe whether I am using something from the internet, school network or a digital device  To choose which digital application to use to meet a purpose  To explain the design of a web-page and the external links  To choose an appropriate online platform to collaborate with others  To create a hyperlink to a website on the World Wide Web  To use search engines to find appropriate websites using specific keywords  To understand and check who owns images and text on the internet  To identify key words to use when searching the World Wide Web Safely	To effectively use technology creatively when creating work online using a range of different effects appropriately (font, letter size, colour, etc.) with confidence  To use a keyboard confidently and effectively use spellchecker to review my work  To effectively and consistently change the appearance of text to increase its effectiveness for a specific purpose  To confidently and consistently save, store and retrieve work on an online platform or school network without adult support  To confidently describe and explain different ways data can be organised digitally for different purposes (charts/graphs) and why data is presented in a specific way  To logically and effectively plan, create and search a database to answer questions  To confidently collect data and consistently identify when data could be inaccurate  To confidently collect data for a specific purpose and present data effectively using an appropriate way  To confidently describe whether I am using something from the internet, school network or a digital device  To choose which digital application to use to meet a purpose and explain my choice  To explain the design of a web-page and the external links by making links with others  To confidently choose an appropriate online platform to collaborate with others and explain my choice  To confidently and consistently create a hyperlink to a website on the World Wide Web To use search engines effectively and accurately to find appropriate websites using specific keywords  To understand and check who owns images and text on the internet and explain how you know
		the internet  To identify key words to use when searching the World	specific keywords  To understand and check who owns images and text on the internet and explain how you

Online Safety and Appropriate Use  To use technology safely, response respectfully  To explore online plagiarism	To use technology safely, responsibly and respectfully To recognise and describe acceptable and unacceptable behaviour online To understand how and why to report content and concerns To describe how online message can be hurtful To explore online plagiarism To explore online games and whether they are age appropriate To describe how to be a good digital citizen online and in real life To describe how to be a good digital citizen online and in real life To describe how to be a good digital citizen online and in real life  To describe how to be a good digital citizen online and in real life  To describe how to be a good digital citizen online and in real life  To describe how to be a good digital citizen online and in real life by making comparisons between reality and virtual
--	---

SUMMER UNIT	Key generic learning objectives	Unit specific learning objectives	Lower KS2 working at the EXPECTED STANDARD	Lower KS2 working ABOVE the expected standard
What I believe: Everyone and everything has the right to be alive.  Life in the rainforest.	Understanding and Creating Algorithms	To use a variety of commands to create a precise program  To detect errors in an algorithm and debug an algorithm using abstraction  To evaluate the effectiveness of a program and why a program is suitable	To use logical reasoning to decompose an open-ended problem into smaller parts  To use algorithms to solve complex problems  To use logical reasoning to simplify a program  To explain the input and output to program a robot/software  To use a sensor within an algorithm  To use a variety of commands to create a precise program  To detect errors in an algorithm and debug an algorithm using abstraction  To evaluate the effectiveness of a program and why a program is suitable	To effectively use logical reasoning to decompose an open-ended problem into smaller parts and begin to identify patterns  To use precise. accurate and logical algorithms to solve complex problems  To use logical reasoning to simplify a program consistently and effectively  To explain the input and output to program a robot/software and explain how the input affects the output  To confidently use a sensor within an algorithm  To use a variety of commands to create a precise program with greater accuracy and consistency  To accurately detect errors in an algorithm and precisely debug an algorithm using abstraction

	To effectively use information, I have found on the	To create work using a range of text, pictorial and	To evaluate the effectiveness of a program and why a program is suitable and unsuitable to achieve a specific outcome  To effectively create work using a range of
Digital Content and the Internet	internet and check its reliability  To use technology creatively when creating work online using a range of different effects appropriately (font, letter size, colour, etc.)  To use a keyboard confidently and use spellchecker to review my work  To change the appearance of text to increase its effectiveness for a specific purpose  To save, store and retrieve work on an online platform or school network  To describe and explain different ways data can be organised digitally for different purposes (charts/graphs)  To plan, create and search a database to answer questions  To can collect data and identify when data could be inaccurate  To collect data for a specific purpose and present data using an appropriate way	audio for a specific purpose and audience  To modify a template and use a range of tools to create a piece of work for a specific purpose  To critically evaluate the effectiveness of my work  To begin to use transitions and animations when creating presentations  To confidently use information, I have found on the internet and check its reliability  To use technology creatively when creating work online using a range of different effects appropriately (font, letter size, colour, etc.)  To use a keyboard confidently and use spellchecker to review my work  To change the appearance of text to increase its effectiveness for a specific purpose  To save, store and retrieve work on an online platform or school network  To describe and explain different ways data can be organised digitally for different purposes (charts/graphs)  To plan, create and search a database to answer questions  I can collect data and identify when data could be inaccurate  To collect data for a specific purpose and present data using an appropriate way	text, pictorial and audio for a specific purpose and audience  To effectively modify a template and confidently use a range of tools to create a piece of work for a specific purpose  To critically evaluate the effectiveness of my work and why my work is good and how I could improve it  To to use transitions and animations when creating presentations  To confidently use information, I have found on the internet and check its reliability with increasing confidence  To effectively use technology creatively when creating work online using a range of different effects appropriately (font, letter size, colour, etc.) with confidence  To use a keyboard confidently and effectively use spellchecker to review my work  To effectively and consistently change the appearance of text to increase its effectiveness for a specific purpose  To confidently and consistently save, store and retrieve work on an online platform or school network without adult support  To confidently describe and explain different ways data can be organised digitally for different purposes (charts/graphs) and why data is presented in a specific way  To lacically and effectively plan, create and search a database to answer questions  To confidently collect data and consistently identify when data could be inaccurate  To confidently collect data for a specific purpose and present data effectively using an appropriate way

Understanding the Application of IT	<ul> <li>To choose which digital application to use to meet a purpose</li> <li>To choose an appropriate online platform to collaborate with others</li> <li>To use search engines to find appropriate websites using specific keywords</li> <li>To identify key words to use when searching the World Wide Web safely</li> </ul>	To describe whether I am using something from the internet, school network or a digital device  To choose which digital application to use to meet a purpose  To explain the design of a web-page and the external links  To choose an appropriate online platform to collaborate with others  To create a hyperlink to a website on the World Wide Web  To use search engines to find appropriate websites using specific keywords  To understand and check who owns images and text on the internet  To identify key words to use when searching the World Wide Web safely	To confidently describe whether I am using something from the internet, school network or a digital device  To choose which digital application to use to meet a purpose and explain my choice  To explain the design of a web-page and the external links by making links with others  To critically choose an appropriate online platform to collaborate with others and explain my choice  To confidently and consistently create a hyperlink to a website on the World Wide Web To use search engines effectively and accurately to find appropriate websites using specific keywords  To understand and check who owns images and text on the internet and explain how you
Online Safety and Appropriate Use	To use technology safely, responsibly and respectfully  To create a safe online profile  To describe how to be a good digital citizen online and in real life	To use technology safely, responsibly and respectfully To recognise and describe acceptable and unacceptable behaviour online To understand how and why to report content and concerns To describe how online message can be hurtful To explore online plagiarism To explore online games and whether they are age appropriate To create a safe online profile To describe how to be a good digital citizen online and in real life	To use technology safely, responsibly and respectfully with confidence  To accurately recognise and confidently describe acceptable and unacceptable behaviour online  To understand how and why to report content and concerns in detail  To describe how and why online message can be hurtful  To explore online plagiarism and why it is important  To critically explore online games and whether they are age appropriate and explain why  To effectively create a safe and secure online profile  To describe how to be a good digital citizen online and in real life by making comparisons between reality and virtual

AUTUMN UNIT	Key generic learning objectives	Unit specific learning objectives	Upper KS2 working at the EXPECTED STANDARD	Lower KS2 working ABOVE the expected standard
Settlers and Settlements  Anglo-Saxon, Vikings and Scots	Understanding and Creating Algorithms	To select appropriate commands to create a specific program  To use algorithms to solve complex problems using logical reasoning	To decompose an open-ended problem into smaller parts and recognise patterns between programs to solve a problem  To design, write and debug programs that achieve a specific goal  To evaluate the effectiveness and efficiency of my algorithm as a whole by continually testing the program  To use logical reasoning to detect correct errors in algorithms and programs  To recognise the use of a variable to achieve a specific outcome  To use a variable and operators to stop a program	To effectively decompose an open-ended problem into smaller parts and consistently recognise patterns between programs to solve a problem  To confidently and consistently design, write and debug programs that achieve a specific goal  To critically evaluate the effectiveness and efficiency of my algorithm as a whole by continually testing the program  To effectively use logical reasoning to confidently detect correct errors in algorithms and programs  To confidently recognise the use of a variable to achieve a specific outcome  To effectively use a variable and operators to stop a program
	Digital Content and the Internet	To create digital content by adding appropriate text, images, sounds and videos to meet a specific purpose  To modify an appropriate template and use a range of tools to create a piece of work for a specific purpose  To use logical reasoning to evaluate the effectiveness of how to present information  To use appropriate information sources to gather digital content  To be digitally critical when searching for information online and check its reliability  To select, use and combine appropriate digital tools to create effects to enhance my work creatively  To use a keyboard with increasing fluency  To choose appropriate tools to edit the appearance of text and images to meet a specific purpose  To save, store and retrieve work on an appropriate online platform or school network	To effectively create digital content by adding appropriate text, images, sound and videos to meet a specific purpose  To effectively plan the process of using, finding, creating and modifying digital content  To use logically reasoning to choose an appropriate template to modify to effectively meet a purpose  To be digitally critical when evaluating effectiveness of content  To be digitally critical when searching for information online by checking its reliability and plausibility  To effectively select, use and combine appropriate digital tools to create effects to enhance my work creatively  To use a keyboard with increasing fluency and pace  To be digitally critically when choosing appropriate tools to edit the appearance of text and images to meet a specific purpose	To effectively create digital content by adding appropriate text, images, sound and videos to meet a specific purpose consistently and with confidence  To effectively and critically plan the process of using, finding, creating and modifying digital content  To confidently use logically reasoning to choose an appropriate template to modify to effectively meet a purpose and articulate their how it meets the purpose  To be digitally critical when evaluating effectiveness of content by explain and reasoning their understanding of content  To be digitally critical when searching for information online by checking its reliability and plausibility consistently  To effectively select, use and combine appropriate digital tools to create effects to enhance my work creatively consistently to meet a purpose

,		1 -	
		To save, store and retrieve work on an appropriate online platform or school network	To <u>confidently</u> use a keyboard with increasing fluency and pace
		To effectively create, critically analyse, confidently evaluate and appropriately present data using spreadsheets, databases and graphs  To input a range of formulas to create data (adding, averages)  To appropriately edit the format of a cell on a database for different purposes  To check the plausibility and accuracy of data collected and how it can be interpreted in different ways	To be digitally critically when choosing appropriate tools to edit the appearance of text and images to meet a specific purpose and explain why they have edited in a specific way  To confidently and consistently save, store and retrieve work on an appropriate online platform or school network and explain why they have saved their work on the appropriate platform  To effectively create, critically analyse, confidently evaluate and appropriately present data using spreadsheets, databases and graphs consistently and explain why they have presented data in specific way  To input a range of formulas to create data (adding, averages) with confidence  To appropriately edit the format of a cell on a database for different purposes with confidence  To critically check the plausibility and accuracy of data collected and how it can be interpreted in different ways
Understanding the Application of IT	To choose an appropriate online or offline tool to share and create ideas  To understand how to use different online communication tools for different purposes  To use a search engine to find appropriate information and check its reliability  To recognise and evaluate information found on the internet	To explain the internet services for different purposes To understand 'copyright' and describe what it means To describe how to acknowledge sources from the internet To describe how information is transported on the internet To understand different types of tools used online and on technologies that can be used for collaboration and communication To use keywords to make effective internet searches and evaluate rankings of websites and digital content To evaluate the reliability of websites To explain how website are ranked and selected based on how they are searched	To effectively explain the internet services for different purposes and why the services are important  To confidently understand 'copyright', describe what it means and why it is important  To confidently describe how to acknowledge sources from the internet  To describe how information is transported on the internet in great detail  To understand different types of tools used online and on technologies that can be used for collaboration and communication and compare how we use them  To consistently and accurately use keywords to make effective internet searches and critically evaluate rankings of websites and digital content  To critically evaluate the reliability of websites

Online Safety and Appropriate Use	<ul> <li>To use technology safely, responsibly and respectfully</li> <li>To recognise, describe and explain acceptable and unacceptable behaviour online</li> <li>To understand how and why to report content and concerns using a variety of methods</li> <li>To identify what spam emails are and how what to do with them</li> <li>To create strong passwords to protect information</li> </ul>	To use technology safely, responsibly and respectfully To recognise, describe and explain acceptable and unacceptable behaviour online effectively To understand how and why to report content and concerns by explaining the most appropriate method of reporting To compare online bullying to other types of bullying To identify similarities and differences between strategies for online bullying and other types of bullying To recognise secure and insecure websites To understand safe and unsafe information to share with other online To evaluate media aimed at boys and girls	To confidently explain how website are ranked and selected based on how they are searched by making comparison  To use technology safely, responsibly and respectfully with confidence  To accurately recognise, describe in detail and effectively explain acceptable and unacceptable behaviour online effectively  To understand how and why to report content and concerns by explaining the most appropriate method of reporting and reason their actions  To critically compare online bullying to other types of bullying focusing on similarities and differences  To identify similarities and differences between strategies for online bullying and other types of bullying and which strategies are effective for different situations  To accurately recognise secure and insecure websites and explain how secure they are  To understand safe and unsafe information to share with other online by critically evaluating the information

SPRING UNIT	Key generic learning objectives	Unit specific learning objectives	Upper KS2 working at the EXPECTED STANDARD	Lower KS2 working ABOVE the expected standard
What happened after 1066?  Tudors and Stewarts	Understanding and Creating Algorithms	<ul> <li>To use programs to control and simulate physical systems</li> <li>To refine and design a program using repeat commands effectively</li> <li>To change the input of a program to achieve a different output</li> </ul>	To decompose an open-ended problem into smaller parts and recognise patterns between programs to solve a problem  To design, write and debug programs that achieve a specific goal  To evaluate the effectiveness and efficiency of my algorithm as a whole by continually testing the program  To use logical reasoning to detect correct errors in algorithms and programs	To <u>effectively</u> decompose an open-ended problem into smaller parts and <u>consistently</u> recognise patterns between programs to solve a problem  To <u>confidently and consistently</u> design, write and debug programs that achieve a specific goal  To <u>critically</u> evaluate the effectiveness and efficiency of my algorithm as a whole by continually testing the program

		To recognise the use of a variable to achieve a specific outcome  To use a variable and operators to stop a program	To effectively use logical reasoning to confidently detect correct errors in algorithms and programs  To confidently recognise the use of a variable to achieve a specific outcome  To effectively use a variable and operators to stop a program
Digital Content and the Internet	<ul> <li>To create digital content by adding appropriate text, images, sounds and videos to meet a specific purpose</li> <li>To modify an appropriate template and use a range of tools to create a piece of work for a specific purpose</li> <li>To use logical reasoning to evaluate the effectiveness of how to present information</li> <li>To use appropriate information sources to gather digital content</li> <li>To be digitally critical when searching for information online and check its reliability</li> <li>To select, use and combine appropriate digital tools to create effects to enhance my work creatively</li> <li>To use a keyboard with increasing fluency</li> <li>To choose appropriate tools to edit the appearance of text and images to meet a specific purpose</li> <li>To save, store and retrieve work on an appropriate online platform or school network</li> </ul>	To effectively create digital content by adding appropriate text, images, sound and videos to meet a specific purpose  To effectively plan the process of using, finding, creating and modifying digital content  To use logically reasoning to choose an appropriate template to modify to effectively meet a purpose  To be digitally critical when evaluating effectiveness of content  To be digitally critical when searching for information online by checking its reliability and plausibility  To effectively select, use and combine appropriate digital tools to create effects to enhance my work creatively  To use a keyboard with increasing fluency and pace  To be digitally critically when choosing appropriate tools to edit the appearance of text and images to meet a specific purpose  To save, store and retrieve work on an appropriate online platform or school network  To effectively create, critically analyse, confidently evaluate and appropriately present data using spreadsheets, databases and graphs  To input a range of formulas to create data (adding, averages)  To appropriately edit the format of a cell on a database for different purposes  To check the plausibility and accuracy of data collected and how it can be interpreted in different ways	To effectively create digital content by adding appropriate text, images, sound and videos to meet a specific purpose consistently and with confidence  To effectively and critically plan the process of using, finding, creating and modifying digital content  To confidently use logically reasoning to choose an appropriate template to modify to effectively meet a purpose and articulate their how it meets the purpose  To be digitally critical when evaluating effectiveness of content by explain and reasoning their understanding of content  To be digitally critical when searching for information online by checking its reliability and plausibility consistently  To effectively select, use and combine appropriate digital tools to create effects to enhance my work creatively consistently to meet a purpose  To confidently use a keyboard with increasing fluency and pace  To be digitally critically when choosing appropriate tools to edit the appearance of text and images to meet a specific purpose and explain why they have edited in a specific way  To confidently and consistently save, store and retrieve work on an appropriate online platform or school network and explain why they have saved their work on the appropriate platform  To effectively create, critically analyse, confidently evaluate and appropriately present data using spreadsheets, databases and graphs

Understanding the Application of IT	<ul> <li>To describe the different parts of the internet</li> <li>To use a search engine to find appropriate information and check its reliability</li> <li>To recognise and evaluate information found on the internet</li> </ul>	To explain the internet services for different purposes To understand 'copyright' and describe what it means To describe how to acknowledge sources from the internet To describe how information is transported on the internet To understand different types of tools used online and on technologies that can be used for collaboration and communication To use keywords to make effective internet searches and evaluate rankings of websites and digital content To evaluate the reliability of websites To explain how website are ranked and selected based on how they are searched	consistently and explain why they have presented data in specific way  To input a range of formulas to create data (adding, averages) with confidence  To appropriately edit the format of a cell on a database for different purposes with confidence  To critically check the plausibility and accuracy of data collected and how it can be interpreted in different ways  To effectively explain the internet services for different purposes and why the services are important  To confidently understand 'copyright', describe what it means and why it is important  To confidently describe how to acknowledge sources from the internet  To describe how information is transported on the internet in great detail  To understand different types of tools used online and on technologies that can be used for collaboration and communication and compare how we use them  To consistently and accurately use keywords to make effective internet searches and critically evaluate rankings of websites and digital content  To critically evaluate the reliability of websites  To confidently explain how website are ranked and selected based on how they are searched by making comparison
Online Safety and Appropriate Use	<ul> <li>To use technology safely, responsibly and respectfully</li> <li>To recognise, describe and explain acceptable and unacceptable behaviour online</li> <li>To understand how and why to report content and concerns using a variety of methods</li> <li>To write citations for websites to understand the source of information</li> </ul>	To use technology safely, responsibly and respectfully To recognise, describe and explain acceptable and unacceptable behaviour online effectively  To understand how and why to report content and concerns by explaining the most appropriate method of reporting  To compare online bullying to other types of bullying  To identify similarities and differences between strategies for online bullying and other types of bullying	To use technology safely, responsibly and respectfully. with confidence  To accurately recognise, describe in detail and effectively explain acceptable and unacceptable behaviour online effectively  To understand how and why to report content and concerns by explaining the most appropriate method of reporting and reason their actions  To critically compare online bullying to other types of bullying focusing on similarities and differences

	To understand with other onl	nd safe and unsafe information to share online  media aimed at boys and girls  T  m	To identify similarities and differences etween strategies for online bullying and ther types of bullying and which strategies re effective for different situations  To accurately recognise secure and insecure rebsites and explain how secure they are  To understand safe and unsafe information to hare with other online by critically evaluating
		<del>-</del>   T   9	he information  o critically evaluate media aimed at boys and irls and why they may be similar or ifferent

SUMMER UNIT	Key generic learning objectives	Unit specific learning objectives	Upper KS2 working at the EXPECTED STANDARD	Lower KS2 working ABOVE the expected standard
What I believe: No one is allowed to punish you in a cruel or harmful way. Exploring crime and punishment.	Understanding and Creating Algorithms	To use a variable to increase the possibility of programming  To use 'if' and 'then' command in an algorithm  To use logical reasoning to detect errors in an algorithm and debug an algorithm	To decompose an open-ended problem into smaller parts and recognise patterns between programs to solve a problem  To design, write and debug programs that achieve a specific goal  To evaluate the effectiveness and efficiency of my algorithm as a whole by continually testing the program  To use logical reasoning to detect correct errors in algorithms and programs  To recognise the use of a variable to achieve a specific outcome  To use a variable and operators to stop a program	To <u>effectively</u> decompose an open-ended problem into smaller parts and <u>consistently</u> recognise patterns between programs to solve a problem  To <u>confidently and consistently</u> design, write and debug programs that achieve a specific goal  To <u>critically</u> evaluate the effectiveness and efficiency of my algorithm as a whole by continually testing the program  To <u>effectively</u> use logical reasoning to <u>confidently</u> detect correct errors in algorithms and programs  To <u>confidently</u> recognise the use of a variable to achieve a specific outcome  To <u>effectively</u> use a variable and operators to stop a program
	Digital Content and the Internet	To use appropriate information sources to gather digital content  To be digitally critical when searching for information online and check its reliability  To select, use and combine appropriate digital tools to create effects to enhance my work creatively  To use a keyboard with increasing fluency	To effectively create digital content by adding appropriate text, images, sound and videos to meet a specific purpose  To effectively plan the process of using, finding, creating and modifying digital content	To effectively create digital content by adding appropriate text, images, sound and videos to meet a specific purpose consistently and with confidence  To effectively and critically plan the process of using, finding, creating and modifying digital content

 		1	
	<ul> <li>To choose appropriate tools to edit the appearance of text and images to meet a specific purpose</li> </ul>	To use logically reasoning to choose an appropriate template to modify to effectively meet a purpose	To <u>confidently</u> use logically reasoning to
	To save, store and retrieve work on an appropriate online platform or school network	To be digitally critical when evaluating effectiveness of content	choose an appropriate template to modify to effectively meet a purpose <u>and articulate</u> their how it meets the purpose
	<ul> <li>To use spreadsheets and databases to collect, record and analyse data</li> </ul>	To be digitally critical when searching for information online by checking its reliability and plausibility	To be digitally critical when evaluating effectiveness of content by explain and
	To choose an appropriate way to present data and explain why  To search a database using different operators to refine	To effectively select, use and combine appropriate digital tools to create effects to enhance my work	reasoning their understanding of content  To be digitally critical when searching for
	my search  To edit data to amend inaccuracies	creatively  To use a keyboard with increasing fluency and pace	information online by checking its reliability and plausibility <u>consistently</u>
	<ul> <li>To begin input a range of formulas to create data (adding)</li> </ul>	To be digitally critically when choosing appropriate	To effectively select, use and combine appropriate digital tools to create effects to
	To edit the format of a cell on a database	tools to edit the appearance of text and images to meet a specific purpose	enhance my work creatively <u>consistently to</u> <u>meet a purpose</u>
		To save, store and retrieve work on an appropriate online platform or school network	To <u>confidently</u> use a keyboard with increasing fluency and pace
		To effectively create, critically analyse, confidently evaluate and appropriately present data using spreadsheets, databases and graphs	To be digitally critically when choosing appropriate tools to edit the appearance of text and images to meet a specific purpose <u>and</u>
		To input a range of formulas to create data (adding, averages)	explain why they have edited in a specific way
		To appropriately edit the format of a cell on a database for different purposes	To <u>confidently and consistently</u> save, store and retrieve work on an appropriate online platform or school network <u>and explain why</u>
		To check the plausibility and accuracy of data collected and how it can be interpreted in different ways	they have saved their work on the appropriate platform
			To effectively create, critically analyse, confidently evaluate and appropriately present data using spreadsheets, databases and graphs consistently and explain why they have presented data in specific way
			To input a range of formulas to create data (adding, averages) with confidence
			To appropriately edit the format of a cell on a database for different purposes <u>with</u> <u>confidence</u>
			To <u>critically</u> check the plausibility and accuracy of data collected and how it can be interpreted in different ways
Understanding the	<ul> <li>To describe the different parts of a webpage and how they work</li> </ul>	To explain the internet services for different purposes	To <u>effectively</u> explain the internet services for different purposes <u>and why the services</u>
Application of IT	<ul> <li>To use a search engine to find appropriate information and check its reliability</li> </ul>	To understand 'copyright' and describe what it means  To describe how to acknowledge sources from the internet	are important  To confidently understand 'copyright', describe what it means and why it is important
	<ul> <li>To recognise and evaluate information found on the internet</li> </ul>		

Online Safety and	To use technology safely, responsibly and respectfully	To describe how information is transported on the internet  To understand different types of tools used online and on technologies that can be used for collaboration and communication  To use keywords to make effective internet searches and evaluate rankings of websites and digital content  To evaluate the reliability of websites  To explain how website are ranked and selected based on how they are searched	To confidently describe how to acknowledge sources from the internet  To describe how information is transported on the internet in great detail  To understand different types of tools used online and on technologies that can be used for collaboration and communication and compare how we use them  To consistently and accurately use keywords to make effective internet searches and critically evaluate rankings of websites and digital content  To critically evaluate the reliability of websites  To confidently explain how website are ranked and selected based on how they are searched by making comparison  To use technology safely, responsibly and respectfully with confidence
Appropriate Use	To understand how photos online can be edited and their reliability  To critically evaluate content on the internet	To recognise, describe and explain acceptable and unacceptable behaviour online effectively  To understand how and why to report content and concerns by explaining the most appropriate method of reporting  To compare online bullying to other types of bullying  To identify similarities and differences between strategies for online bullying and other types of bullying  To recognise secure and insecure websites  To understand safe and unsafe information to share with other online  To evaluate media aimed at boys and girls	To accurately recognise, describe in detail and effectively explain acceptable and unacceptable behaviour online effectively  To understand how and why to report content and concerns by explaining the most appropriate method of reporting and reason their actions  To critically compare online bullying to other types of bullying focusing on similarities and differences  To identify similarities and differences between strategies for online bullying and other types of bullying and which strategies are effective for different situations  To accurately recognise secure and insecure websites and explain how secure they are  To understand safe and unsafe information to share with other online by critically evaluating the information  To critically evaluate media aimed at boys and girls and why they may be similar or different

AUTUMN UNIT	Key generic learning objectives	Unit specific learning objectives	Upper KS2 working at the EXPECTED STANDARD	Lower KS2 working ABOVE the expected standard
Children in WWII in Sunderland	Understanding and Creating Algorithms	To decompose an open-ended problem into smaller parts and recognise patterns between programs to solve a problem  To design, write and debug programs that achieve a specific goal	To decompose an open-ended problem into smaller parts and recognise patterns between programs to solve a problem  To design, write and debug programs that achieve a specific goal  To evaluate the effectiveness and efficiency of my algorithm as a whole by continually testing the program  To use logical reasoning to detect correct errors in algorithms and programs  To recognise the use of a variable to achieve a specific outcome  To use a variable and operators to stop a program	To effectively decompose an open-ended problem into smaller parts and consistently recognise patterns between programs to solve a problem  To confidently and consistently design, write and debug programs that achieve a specific goal  To critically evaluate the effectiveness and efficiency of my algorithm as a whole by continually testing the program  To effectively use logical reasoning to confidently detect correct errors in algorithms and programs  To confidently recognise the use of a variable to achieve a specific outcome  To effectively use a variable and operators to stop a program
	Digital Content and the Internet	To effectively create digital content by adding appropriate text, images, sound and videos to meet a specific purpose  To effectively plan the process of using, finding, creating and modifying digital content  To use logically reasoning to choose an appropriate template to modify to effectively meet a purpose  To be digitally critical when evaluating effectiveness of content  To be digitally critical when searching for information online by checking its reliability and plausibility  To effectively select, use and combine appropriate digital tools to create effects to enhance my work creatively  To use a keyboard with increasing fluency and pace  To be digitally critically when choosing appropriate tools to edit the appearance of text and images to meet a specific purpose  To save, store and retrieve work on an appropriate online platform or school network	To effectively create digital content by adding appropriate text, images, sound and videos to meet a specific purpose  To effectively plan the process of using, finding, creating and modifying digital content  To use logically reasoning to choose an appropriate template to modify to effectively meet a purpose  To be digitally critical when evaluating effectiveness of content  To be digitally critical when searching for information online by checking its reliability and plausibility  To effectively select, use and combine appropriate digital tools to create effects to enhance my work creatively  To use a keyboard with increasing fluency and pace  To be digitally critically when choosing appropriate tools to edit the appearance of text and images to meet a specific purpose	To effectively create digital content by adding appropriate text, images, sound and videos to meet a specific purpose consistently and with confidence  To effectively and critically plan the process of using, finding, creating and modifying digital content  To confidently use logically reasoning to choose an appropriate template to modify to effectively meet a purpose and articulate their how it meets the purpose  To be digitally critical when evaluating effectiveness of content by explain and reasoning their understanding of content  To be digitally critical when searching for information online by checking its reliability and plausibility consistently  To effectively select, use and combine appropriate digital tools to create effects to enhance my work creatively consistently to meet a purpose

	_		,
		To save, store and retrieve work on an appropriate online platform or school network	To <u>confidently</u> use a keyboard with increasing fluency and pace
		To effectively create, critically analyse, confidently evaluate and appropriately present data using spreadsheets, databases and graphs  To input a range of formulas to create data (adding, averages)  To appropriately edit the format of a cell on a database for different purposes  To check the plausibility and accuracy of data collected and how it can be interpreted in different ways	To be digitally critically when choosing appropriate tools to edit the appearance of text and images to meet a specific purpose and explain why they have edited in a specific way  To confidently and consistently save, store and retrieve work on an appropriate online platform or school network and explain why they have saved their work on the appropriate platform  To effectively create, critically analyse, confidently evaluate and appropriately present data using spreadsheets, databases and graphs consistently and explain why they have presented data in specific way  To input a range of formulas to create data (adding, averages) with confidence  To appropriately edit the format of a cell on a database for different purposes with confidence  To critically check the plausibility and accuracy of data collected and how it can be interpreted in different ways
Understanding the Application of IT	To use keywords to make effective internet searches and evaluate rankings of websites and digital content  To evaluate the reliability of websites  To explain how website are ranked and selected based on how they are searched	To explain the internet services for different purposes To understand 'copyright' and describe what it means To describe how to acknowledge sources from the internet To describe how information is transported on the internet To understand different types of tools used online and on technologies that can be used for collaboration and communication To use keywords to make effective internet searches and evaluate rankings of websites and digital content To evaluate the reliability of websites To explain how website are ranked and selected based on how they are searched	To effectively explain the internet services for different purposes and why the services are important  To confidently understand 'copyright', describe what it means and why it is important  To confidently describe how to acknowledge sources from the internet  To describe how information is transported on the internet in great detail  To understand different types of tools used online and on technologies that can be used for collaboration and communication and compare how we use them  To consistently and accurately use keywords to make effective internet searches and critically evaluate rankings of websites and digital content  To critically evaluate the reliability of websites

Online Safety and Appropriate Use	To use technology safely, responsibly and respectfully  To recognise, describe and explain acceptable and unacceptable behaviour online effectively  To understand how and why to report content and concerns by explaining the most appropriate method of reporting  To compare online bullying to other types of bullying	To use technology safely, responsibly and respectfully To recognise, describe and explain acceptable and unacceptable behaviour online effectively To understand how and why to report content and concerns by explaining the most appropriate method of reporting To compare online bullying to other types of bullying To identify similarities and differences between strategies for online bullying and other types of bullying To recognise secure and insecure websites To understand safe and unsafe information to share with other online To evaluate media aimed at boys and girls	To confidently explain how website are ranked and selected based on how they are searched by making comparison  To use technology safely, responsibly and respectfully with confidence  To accurately recognise, describe in detail and effectively explain acceptable and unacceptable behaviour online effectively  To understand how and why to report content and concerns by explaining the most appropriate method of reporting and reason their actions  To critically compare online bullying to other types of bullying focusing on similarities and differences  To identify similarities and differences between strategies for online bullying and other types of bullying and which strategies are effective for different situations  To accurately recognise secure and insecure websites and explain how secure they are  To understand safe and unsafe information to share with other online by critically evaluating the information
			share with other online by critically evaluating

SPRING UNIT	Key generic learning objectives	Unit specific learning objectives	Upper KS2 working at the EXPECTED STANDARD	Lower KS2 working ABOVE the expected standard
Sunderland's Heritage: Coalmining	Understanding and Creating Algorithms	To recognise the use of a variable to achieve a specific outcome  To use a variable and operators to stop a program	To decompose an open-ended problem into smaller parts and recognise patterns between programs to solve a problem  To design, write and debug programs that achieve a specific goal  To evaluate the effectiveness and efficiency of my algorithm as a whole by continually testing the program  To use logical reasoning to detect correct errors in algorithms and programs	To <u>effectively</u> decompose an open-ended problem into smaller parts and <u>consistently</u> recognise patterns between programs to solve a problem  To <u>confidently and consistently</u> design, write and debug programs that achieve a specific goal  To <u>critically</u> evaluate the effectiveness and efficiency of my algorithm as a whole by continually testing the program

		To recognise the use of a variable to achieve a specific outcome  To use a variable and operators to stop a program	To <u>effectively</u> use logical reasoning to <u>confidently</u> detect correct errors in algorithms and programs  To <u>confidently</u> recognise the use of a variable to achieve a specific outcome  To <u>effectively</u> use a variable and operators to stop a program
Digital Content and the Internet	<ul> <li>To effectively create digital content by adding appropriate text, images, sound and videos to meet a specific purpose</li> <li>To effectively plan the process of using, finding, creating and modifying digital content</li> <li>To use logically reasoning to choose an appropriate template to modify to effectively meet a purpose</li> <li>To be digitally critical when evaluating effectiveness of content</li> <li>To be digitally critical when searching for information online by checking its reliability and plausibility</li> <li>To effectively select, use and combine appropriate digital tools to create effects to enhance my work creatively</li> <li>To use a keyboard with increasing fluency and pace</li> <li>To be digitally critically when choosing appropriate tools to edit the appearance of text and images to meet a specific purpose</li> <li>To save, store and retrieve work on an appropriate online platform or school network</li> </ul>	To effectively create digital content by adding appropriate text, images, sound and videos to meet a specific purpose  To effectively plan the process of using, finding, creating and modifying digital content  To use logically reasoning to choose an appropriate template to modify to effectively meet a purpose  To be digitally critical when evaluating effectiveness of content  To be digitally critical when searching for information online by checking its reliability and plausibility  To effectively select, use and combine appropriate digital tools to create effects to enhance my work creatively  To use a keyboard with increasing fluency and pace  To be digitally critically when choosing appropriate tools to edit the appearance of text and images to meet a specific purpose  To save, store and retrieve work on an appropriate online platform or school network  To effectively create, critically analyse, confidently evaluate and appropriately present data using spreadsheets, databases and graphs  To input a range of formulas to create data (adding, averages)  To appropriately edit the format of a cell on a database for different purposes  To check the plausibility and accuracy of data collected and how it can be interpreted in different ways	To effectively create digital content by adding appropriate text, images, sound and videos to meet a specific purpose consistently and with confidence  To effectively and critically plan the process of using, finding, creating and modifying digital content  To confidently use logically reasoning to choose an appropriate template to modify to effectively meet a purpose and articulate their how it meets the purpose  To be digitally critical when evaluating effectiveness of content by explain and reasoning their understanding of content  To be digitally critical when searching for information online by checking its reliability and plausibility consistently  To effectively select, use and combine appropriate digital tools to create effects to enhance my work creatively consistently to meet a purpose  To confidently use a keyboard with increasing fluency and pace  To be digitally critically when choosing appropriate tools to edit the appearance of text and images to meet a specific purpose and explain why they have edited in a specific way  To confidently and consistently save, store and retrieve work on an appropriate online platform or school network and explain why they have saved their work on the appropriate platform  To effectively create, critically analyse, confidently evaluate and appropriately present data using spreadsheets, databases and graphs

Understanding the Application of IT	To explain the internet services for different purposes  To describe how information is transported on the internet  To use keywords to make effective internet searches and evaluate rankings of websites and digital content  To evaluate the reliability of websites  *	To explain the internet services for different purposes To understand 'copyright' and describe what it means To describe how to acknowledge sources from the internet To describe how information is transported on the internet To understand different types of tools used online and on technologies that can be used for collaboration and communication To use keywords to make effective internet searches and evaluate rankings of websites and digital content To evaluate the reliability of websites To explain how website are ranked and selected based on how they are searched	consistently and explain why they have presented data in specific way  To input a range of formulas to create data (adding, averages) with confidence  To appropriately edit the format of a cell on a database for different purposes with confidence  To critically check the plausibility and accuracy of data collected and how it can be interpreted in different ways  To effectively explain the internet services for different purposes and why the services are important  To confidently understand 'copyright', describe what it means and why it is important  To confidently describe how to acknowledge sources from the internet  To describe how information is transported on the internet in great detail  To understand different types of tools used online and on technologies that can be used for collaboration and communication and compare how we use them  To consistently and accurately use keywords to make effective internet searches and critically evaluate rankings of websites and digital content  To critically evaluate the reliability of websites  To confidently explain how website are ranked and selected based on how they are searched by making comparison
Online Safety and Appropriate Use	To use technology safely, responsibly and respectfully  To identify similarities and differences between strategies for online bullying and other types of bullying  To understand safe and unsafe information to share with other online	To use technology safely, responsibly and respectfully To recognise, describe and explain acceptable and unacceptable behaviour online effectively  To understand how and why to report content and concerns by explaining the most appropriate method of reporting  To compare online bullying to other types of bullying  To identify similarities and differences between strategies for online bullying and other types of bullying	To use technology safely, responsibly and respectfully with confidence  To accurately recognise, describe in detail and effectively explain acceptable and unacceptable behaviour online effectively  To understand how and why to report content and concerns by explaining the most appropriate method of reporting and reason their actions  To critically compare online bullying to other types of bullying focusing on similarities and differences

	To recognise secure and insecure websites  To understand safe and unsafe information to share with other online  To evaluate media aimed at boys and girls	To identify similarities and differences between strategies for online bullying and other types of bullying and which strategies are effective for different situations  To accurately recognise secure and insecure websites and explain how secure they are  To understand safe and unsafe information to share with other online by critically evaluating the information  To critically evaluate media aimed at boys and girls and why they may be similar or
		different

SUMMER UNIT	Key generic learning objectives	Unit specific learning objectives	Upper KS2 working at the EXPECTED STANDARD	Lower KS2 working ABOVE the expected standard
What I believe: I have the right to protection from any kind of exploitation.  I have the right to give my opinion.	Understanding and Creating Algorithms	To evaluate the effectiveness and efficiency of my algorithm whole continually testing the program  To use logical reasoning to detect correct errors in algorithms and programs	To decompose an open-ended problem into smaller parts and recognise patterns between programs to solve a problem  To design, write and debug programs that achieve a specific goal  To evaluate the effectiveness and efficiency of my algorithm as a whole by continually testing the program  To use logical reasoning to detect correct errors in algorithms and programs  To recognise the use of a variable to achieve a specific outcome  To use a variable and operators to stop a program	To effectively decompose an open-ended problem into smaller parts and consistently recognise patterns between programs to solve a problem  To confidently and consistently design, write and debug programs that achieve a specific goal  To critically evaluate the effectiveness and efficiency of my algorithm as a whole by continually testing the program  To effectively use logical reasoning to confidently detect correct errors in algorithms and programs  To confidently recognise the use of a variable to achieve a specific outcome  To effectively use a variable and operators to stop a program
	Digital Content and the Internet	To be digitally critical when searching for information online by checking its reliability and plausibility  To effectively select, use and combine appropriate digital tools to create effects to enhance my work creatively  To use a keyboard with increasing fluency and pace	To effectively create digital content by adding appropriate text, images, sound and videos to meet a specific purpose  To effectively plan the process of using, finding, creating and modifying digital content	To effectively create digital content by adding appropriate text, images, sound and videos to meet a specific purpose consistently and with confidence  To effectively and critically plan the process of using, finding, creating and modifying digital content

	To be digitally critically when choosing appropriate tools	To use logically reasoning to choose an appropriate	
	to edit the appearance of text and images to meet a specific purpose	template to modify to effectively meet a purpose	To <u>confidently</u> use logically reasoning to choose an appropriate template to modify to
	To save, store and retrieve work on an appropriate online platform or school network	To be digitally critical when evaluating effectiveness of content	effectively meet a purpose <u>and articulate</u> <u>their how it meets the purpose</u>
		content  To be digitally critical when searching for information online by checking its reliability and plausibility  To effectively select, use and combine appropriate digital tools to create effects to enhance my work creatively  To use a keyboard with increasing fluency and pace  To be digitally critically when choosing appropriate tools to edit the appearance of text and images to meet a specific purpose  To save, store and retrieve work on an appropriate online platform or school network  To effectively create, critically analyse, confidently evaluate and appropriately present data using spreadsheets, databases and graphs  To input a range of formulas to create data (adding, averages)  To appropriately edit the format of a cell on a database for different purposes  To check the plausibility and accuracy of data collected and how it can be interpreted in different ways	their how it meets the purpose  To be digitally critical when evaluating effectiveness of content by explain and reasoning their understanding of content  To be digitally critical when searching for information online by checking its reliability and plausibility consistently  To effectively select, use and combine appropriate digital tools to create effects to enhance my work creatively consistently to meet a purpose  To confidently use a keyboard with increasing fluency and pace  To be digitally critically when choosing appropriate tools to edit the appearance of text and images to meet a specific purpose and explain why they have edited in a specific way  To confidently and consistently save, store and retrieve work on an appropriate online platform or school network and explain why they have saved their work on the appropriate platform  To effectively create, critically analyse, confidently evaluate and appropriately present data using spreadsheets, databases and graphs consistently and explain why they have presented data in specific way  To input a range of formulas to create data (adding, averages) with confidence  To appropriately edit the format of a cell on a database for different purposes with confidence
			To <u>critically</u> check the plausibility and accuracy of data collected and how it can be interpreted in different ways
Lindorator ding the	To understand 'copyright' and describe what it	To explain the internet services for different purposes	To <u>effectively</u> explain the internet services
Understanding the Application of IT	means  To describe how to acknowledge sources from	To understand 'copyright' and describe what it means	for different purposes <u>and why the services</u> <u>are important</u>
7.55.00.00.11	the internet	To describe how to acknowledge sources from the internet	To <u>confidently</u> understand 'copyright', describe what it means <u>and why it is important</u>

	<ul> <li>To understand different types of tools used online and on technologies that can be used for collaboration and communication</li> <li>To use keywords to make effective internet searches and evaluate rankings of websites and digital content</li> <li>To evaluate the reliability of websites</li> </ul>	To describe how information is transported on the internet  To understand different types of tools used online and on technologies that can be used for collaboration and communication  To use keywords to make effective internet searches and evaluate rankings of websites and digital content  To evaluate the reliability of websites  To explain how website are ranked and selected based on how they are searched	To confidently describe how to acknowledge sources from the internet  To describe how information is transported on the internet in great detail  To understand different types of tools used online and on technologies that can be used for collaboration and communication and compare how we use them  To consistently and accurately use keywords to make effective internet searches and critically evaluate rankings of websites and digital content  To critically evaluate the reliability of websites  To confidently explain how website are ranked and selected based on how they are searched by making comparison
Online Safety and Appropriate Use	To use technology safely, responsibly and respectfully  To recognise secure and insecure websites  To evaluate media aimed at boys and girls	To use technology safely, responsibly and respectfully To recognise, describe and explain acceptable and unacceptable behaviour online effectively To understand how and why to report content and concerns by explaining the most appropriate method of reporting To compare online bullying to other types of bullying To identify similarities and differences between strategies for online bullying and other types of bullying To recognise secure and insecure websites To understand safe and unsafe information to share with other online To evaluate media aimed at boys and girls	To use technology safely, responsibly and respectfully with confidence  To accurately recognise, describe in detail and effectively explain acceptable and unacceptable behaviour online effectively  To understand how and why to report content and concerns by explaining the most appropriate method of reporting and reason their actions  To critically compare online bullying to other types of bullying focusing on similarities and differences  To identify similarities and differences between strategies for online bullying and other types of bullying and which strategies are effective for different situations  To accurately recognise secure and insecure websites and explain how secure they are  To understand safe and unsafe information to share with other online by critically evaluating the information  To critically evaluate media aimed at boys and girls and why they may be similar or different