The objectvies in this curriculum map have been outlined by the National Curriculum and include additonal skill and knowledge based learning objectives grouped by units of work, taken from 'Rising Star's Switched on Computing', our chosen planning support tool.

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Y1	**1.3 We are Painters** This unit will enable the children to: • use the web safely to find ideas for an illustration • select and use appropriate painting tools to create and change images on the computer • understand how this use of ICT differs from using paint and paper • create an illustration for a particular purpose • know how to save, retrieve and change their work • reflect on their work and act on feedback received	**1.6 We are Celebrating** This unit will enable the children to: • develop basic keyboard skills, through typing and formatting text • develop basic mouse skills use the web to find and select images • develop skills in storing and retrieving files • develop skills in combining text and images • discuss their work and think about whether it could be improved	**1.2 We are TV Chefs** This unit will enable the children to: • break down a process into simple, clear steps, as in an algorithm • use different features of a video camera • use a video camera to capture moving images • develop collaboration skills • discuss their work and think about how it could be improved	**1.1 We are Treasure hunters** This unit will enable the children to: • understand that a programmable toy can be controlled by inputting a sequence of instructions • develop and record sequences of instructions as an algorithm • program the toy to follow their algorithm • debug their programs predict how their programs will work	**1.5 We are Storytellers** This unit will enable the children to: • use sound recording equipment to record sounds • develop skills in saving and storing sounds on the computer • develop collaboration skills as they work together in a group • understand how a talking book differs from a paper-based book • talk about and reflect on their use of ICT • share recordings with an audience	**1.6 We are Collectors** This unit will enable the children to: • find and use pictures on the web • know what to do if they encounter pictures that cause concern • group images on the basis of a binary (yes/no) question • organise images into more than two groups according to clear rules • sort (order) images according to some criteria • ask and answer binary (yes/no) questions about their images
Y1 Online Safety	**1.1 We are rule writers -** Creating rules that help us stay safe online This online safety unit will enable the children to: • understand that rules help us stay safe, both in the real world and online • suggest strategies for staying safe in different online	**1.2 We are kind and thoughtful -** Understanding the impact of our behaviour on others This online safety unit will enable the children to: • understand that unkind behaviour online can affect other people, even though we can't see them	**1.3 We are responsible internet and device users -** Remembering to take time out from technology This online safety unit will enable the children to: • learn the very basic principles of what the internet is • understand how people use the internet • understand that using	**1.4 We are information protectors -** Understanding what is meant by personal information This online safety unit will enable the children to: • understand what is meant by 'personal information' • recognise that anyone online who	**1.5 We are good digital citizens -** Finding out what it means to be a good digital citizen This online safety unit will enable the children to: • understand what is meant by 'digital citizen' • understand how to be responsible, respectful and safe online	**1.6 We are responsible gamers -** Learning how to stay safe when playing online games This online safety unit will enable the children to: • understand the importance of playing games in shared spaces where grown-ups are available for

	scenarios • help to develop a set of online safety rules that are easily understood and appropriate for Year 1	• understand that the rules created in Unit 1.1 can be applied to any concerns they may have about their online activities	computer devices too often can be bad for us and we should take time out form technology to do other things • discuss what to do if they see or hear something online that upsets them	we don't know in real life is a stranger • understand how we can protect our personal information, including reporting worries to trusted adults	• understand that being a good digital citizen means having a kind heart, a warning tummy and a thinking brain; all things that keep us safe online • recall what to do if something happens online that makes them feel uncomfortable – building on *Unit 1.4 – We are information protectors* lesson	support • understand the importance of taking breaks away from technology
Y2	**2.1 We are Astronauts** This unit will enable the children to: • have a clear understanding of algorithms as sequences of instructions • convert simple algorithms to programs predict what a simple program will do • spot and fix (debug) errors in their programs.	**2.5 We are Detectives** This unit will enable the children to: • understand that email can be used to communicate • develop skills in opening, composing and sending emails gain skills in opening and listening to audio files on the computer • use appropriate language in emails develop skills in editing and formatting text in emails be aware of e-safety issues when using email	**2.4 We are Researchers** This unit will enable the children to: • develop collaboration skills through working as part of a group develop research skills through searching for information on the internet • improve note-taking skills through the use of mind mapping • develop presentation skills through creating and delivering a short multimedia presentation	**2.2 We are Games Testers** This unit will enable the children to: • describe carefully what happens in computer games • use logical reasoning to make predictions of what a program will do • test these predictions • think critically about computer games and their uses • be aware of how to use games safely and in balance with other activities	**2.3 We are Photographers** This unit will enable the children to: • consider the technical and artistic merits of photographs • use a digital camera or camera app take digital photographs • review and reject or pick the images they take • edit and enhance their photographs • select their best images to include in a shared portfolio	**2.2 We are Zoologists** This unit will enable the children to: • sort and classify a group of items by answering questions • collect data using tick charts or tally charts • use simple charting software to produce pictograms and other basic charts • take, edit and enhance photographs • record information on a digital map

Y2 Online Safety	2.1 We are Year 2 rule writers - Reviewing and editing our online safety guidelines This online safety unit will enable the children to: • consider online safety scenarios encountered in Year 1 (both at school and at home) and appreciate how these new experiences can be used to update their online safety rules • consider what strategies they might use if their usual trusted adult is not available • review and edit their online safety guidelines • develop their online safety rules so they are easily understood and appropriate for Year 2 pupils	2.2 – We are not online bullies - Creating a strong message against online bullying This online safety unit will enable the children to: • begin to understand the concept of online bullying and the role of the bystander • develop an understanding of the consequences of online bullying • recall their online safety rules for reporting concerns and inappropriate behaviour	2.3 We are safe searchers - Learning how to use search engines safely This online safety unit will enable the children to: • understand the very basic principles of how search engines work • understand the key steps for searching the web safely • understand how to report concerns when searching the web	2.4 We are code masters - Generating strong passwords and keeping them safe This online safety unit will enable the children to: • understand that passwords are an important part of keeping information safe • understand the differences between strong and weak passwords • understand that sharing a password makes it weak	Unit 2.5 We are online behaviour experts - Solving online safety problems This online safety unit will enable the children to: • understand that the way technology is used is as important as good online behaviour • understand that the way we use technology impacts the people around us • further develop responses to incidents of poor behaviour online	Unit 2.5 – We are online behaviour experts - Solving online safety problems This online safety unit will enable the children to: • understand that the way technology is used is as important as good online behaviour • understand that the way we use technology impacts the people around us • further develop responses to incidents of poor behaviour online
Y3	3.1 We are Programmers This unit will enable the children to: • create an algorithm for an animated scene in the form of a storyboard • write a program in Scratch to create the animation correct	3.2 We are Bug Fixers This unit will enable the children to: • develop a number of strategies for finding errors in programs build up resilience and strategies for problem solving • increase their	3.4 We are Network Engineers This unit will enable the children to: • understand the physical hardware connections necessary for computer networks to work • understand some features of internet protocols • understand some diagnostic	3.3 We are Presenters This unit will enable the children to: • gain skills in shooting live video, such as framing shots, holding the camera steady, and reviewing • edit video, including adding narration and	3.5 We are Communicators This unit will enable the children to: • develop a basic understanding of how email works • gain skills in using email be aware of broader issues	3.4 We are Opinion Pollsters This unit will enable the children to: • understand some elements of survey • design understand some ethical and legal aspects of online data collection

	mistakes in their animation programs	knowledge and understanding of Scratch recognise a number of common types of bug in software.	tools for investigating network connections • develop a basic understanding of how domain names are converted to IP addresses	editing clips by setting in/out points • understand the qualities of effective video, such as the importance of narrative, consistency, perspective and scene length	surrounding email, including 'netiquette' and e-safety • work collaboratively with a remote partner experience video conferencing	• use the web to facilitate data collection gain skills in using charts to analyse data • gain skills in interpreting results
Y3 Online Safety	**3.1 We are Year 3 rule writers -** Reviewing and editing our online safety rules This online safety unit will enable the children to: • Consider online safety scenarios encountered in Year 2 (both at school and at home) and appreciate how these new experiences can be used to refine their online safety rules • Consider what new strategies they can apply to online safety scenarios, such as calling Childline • Review and edit their online safety guidelines • Develop and edit their online safety rules so they are easily understood and appropriate for Year 3 pupils	**3.2 We are digital friends -** Developing an awareness of online bullying This online safety unit will enable the children to: • begin to understand that information shared online cannot always be controlled • develop a deeper understanding of the consequences of online bullying • understand the role of a bystander in online bullying	**3.3 We are internet detectives -** Assessing the trustworthiness of websites This online safety unit will enable the children to: • use clues to make choices about which web pages they consider most useful and trustworthy • understand that not all links are safe or trustworthy • understand different ways to report concerns and inappropriate behaviour	**3.4 We are aware of our digital footprint -** Understanding the digital trails we leave behind This online safety unit will enable the children to: • Understand that every time we use the internet we leave a digital trail that can be found, copied, shared and broadcast • Understand that the things we upload onto the internet last forever	**3.5 We are netiquette experts -** Practising good netiquette This online safety unit will enable the children to: • understand that good online behaviour is important for making the internet an enjoyable place for everyone • understand that email is a widely used form of digital communication that lasts forever and can be shared	**3.6 We are avatar creators -** Who do we really know online? This online safety unit will enable the children to: • understand that internet identities are actively constructed by the user • recognise that internet identities can be misleading or not representative of the creator • recall that personal information should not be shared by anyone online who we don't know in real life

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Y4	**4.2 We are Toy Designers** This unit will enable the children to: • design and make an on-screen prototype of a computer-controlled toy • understand different forms of input and output (such as sensors, switches, motors, lights and speakers) • design, write and debug the control and monitoring program for their toy	**4.4 We are HTML Editors** This unit will enable the children to: • understand some technical aspects of how the internet makes the web possible use HTML tags for elementary mark-up • use hyperlinks to connect ideas and sources • code up a simple web page with useful content • understand some of the risks in using the web	**4.5 We are Co-Authors** This unit will enable the children to: • understand the conventions for collaborative online work, particularly in wikis • be aware of their responsibilities when editing other people's work become familiar with Wikipedia, including potential problems associated with its use • practise research skills • write for a target audience using a wiki tool develop collaboration skills • develop proofreading skills	**4.6 We are Meteorologists** This unit will enable the children to: • understand different measurement techniques for weather, both analogue and digital use computer-based data logging to automate the recording of some weather data • use spread sheets to create charts analyse data, explore inconsistencies in data and make predictions • practise using presentation software and, optionally, video	**4.3 We are Musicians** This unit will enable the children to: • use one or more programs to edit music • create and develop a musical composition, refining their ideas through reflection and discussion • develop collaboration skills • develop an awareness of how their composition can enhance work in other media	**4.1 We are Software Developers** This unit will enable the children to: • develop an educational computer game using selection and repetition • understand and use variables start to debug computer programs • recognise the importance of user interface design, including consideration of input and output
Y4 Online Safety	**4.1 We are Year 4 rule writers -** Reviewing and editing our online safety rules. This online safety unit will enable the children to: • Consider online safety scenarios encountered in Year 3 (both at school and at home) and appreciate how these new experiences can be used to update their online safety rules • Consider what new strategies they can apply to online safety	**4.2 We are standing up to peer pressure -** Dealing positively with peer pressure This online safety unit will enable the children to: • Understand that peer pressure can be a positive and negative influence • Understand that access to the internet is not the same for everyone • Recall ways to report concerns and inappropriate behaviour	**4.3 We are aware that our online content lasts forever -** Getting the message: pre- and post-internet This online safety unit will enable the children to: • Understand that because of the internet, information can be spread more quickly and reach more people now than at any time in the past • Understand that although information posted on the internet might not always be true or accurate, it lasts forever	**4.4 We are online risk managers -** Understanding risk and prevention of information loss This online safety unit will enable the children to: • Understand the risks involved in clicking on and opening links on suspicious websites and in emails • Understand that hacking can be illegal and has consequences for the hacker • Develop awareness	**4.5 We are respectful of digital rights and responsibilities -** Understanding and respecting digital rights and responsibilities This online safety unit will enable the children to: • Understand that both digital rights and responsibilities are important to ensure the internet is a great place for everyone • Understand that there are consequences for knowingly ignoring rights	**4.6 We are careful when talking to virtual friends -** Virtual friendship vs. real friendship; who we can trust This online safety unit will enable the children to: • Understand that virtual friends are still strangers that they do not know • Apply their knowledge of online safety to decide what information they, as virtual friends, can safely share online

				of viruses and what to do if they think their account has been compromised	•Further develop a positive and responsible attitude towards technology and internet use	• Recap rules for reporting suspicious or uncomfortable online situations
	scenarios, beyond talking to a trusted adult • Review and edit their online safety guidelines • Develop their online safety rules so they are easily understood and appropriate for Year 4 pupils					
Y5	**5.1 We are Game Developers** This unit will enable the children to: • create original artwork and sound for a game • design and create a computer program for a computer game, which uses sequence, selection, repetition and variables • detect and correct errors in their computer game use iterative development techniques (making and testing a series of small changes) to improve their game	**5.4 We are Web Developers** This unit will enable the children to: • develop their research skills to decide what information is appropriate • understand some elements of how search engines select and rank results question the plausibility and quality of information • develop and refine their ideas and text collaboratively develop their understanding of e-safety and responsible use of technology	**5.3 We are Artists** This unit will enable the children to: • develop an appreciation of the links between geometry and art • become familiar with the tools and techniques of a vector graphics package • develop an understanding of turtle graphics • experiment with the tools available, refining and developing their work as they apply their own criteria to evaluate it and receive feedback from their peers develop some awareness of computer-generated art, in particular fractal-based landscapes	**5.2 We are Cryptographers** This unit will enable the children to: • be familiar with semaphore and Morse code understand the need for private information to be encrypted • encrypt and decrypt messages in simple ciphers • appreciate the need to use complex passwords and to keep them secure • have some understanding of how encryption works on the web	**5.5 We are Bloggers** This unit will enable the children to: • become familiar with blogs as a medium and a genre of writing • create a sequence of blog posts on a theme incorporate additional media • comment on the posts of others develop a critical, reflective view of a range of media, including text	**5.6 We are Architects** This unit will enable the children to: • understand the work of architects, designers and engineers working in 3D develop familiarity with a simple CAD (computer aided design) tool • develop spatial awareness by exploring and experimenting with a 3D virtual environment • develop greater aesthetic awareness
Y5 online Safety	**5.1 We are Year 5 rule writers -** Reviewing and editing our online safety rules This online safety unit will enable the children to: • Consider online	**5.4 We are protecting our online reputation -** Developing strategies to protect our future selves This online safety unit will enable the children to: • Understand that	**5.3We are content evaluators -** Understanding advertising and endorsements online This online safety unit will enable the children to: • Understand that some people get paid to endorse products	**5.2 We are responsible for our online actions -** Understanding the impact of online behaviour This online safety unit will enable the children to: • Recognise that online	**5.5 We are respectful of copyright -** Understanding and applying copyright laws This online safety unit will enable the children to: • Understand that	**5.6 We are game changers -** Understanding how games developers make money This online safety unit will enable the children to:

	safety scenarios encountered in Year 4 (both at school and at home) and appreciate how these new experiences can be used to update their online safety rules • Consider what new strategies they can apply to online safety scenarios, such as clicking the CEOP 'Report abuse' button • Review and edit their online safety guidelines • Develop their online safety rules so they are easily understood and appropriate for Year 5 pupils	posting inappropriate information online can cause regret later • Understand how to manage their online reputation • Understand that, although information posted on the internet might not always be true or accurate, it can last forever • Understand that it is possible to search the internet for information about particular individuals	online • Develop a discerning attitude to online content so that they can confidently reach their own conclusions • Appreciate the value of trusted adults in helping them reach an informed conclusion	behaviour can have real life negative effects on other people • Understand that we must take responsibility for our own actions online, regardless of what other people are doing • Critically assess all information surrounding an online safety scenario to decide whether it constitutes online bullying • Use their knowledge of online safety to reach a consensus on the appropriate response to an online incident	copyright laws exist to protect original content creators • Understand that content they choose to use or upload on the internet may be subject to copyright laws • Further develop their understanding of rights and responsibilities as digital citizens	• Understand different business models for online games • Understand that accounts for devices are linked to real-life bank accounts • Understand that some features in online games and apps cost real money • Understand that research, parental controls and device settings are tools we can use to help us game confidently
Y6	**6.1 We are App Planners** This unit will enable the children to: • develop an awareness of the capabilities of smartphones and tablets • understand geolocation, including GPS • identify interesting, solvable problems • evaluate competing products • pitch a proposal for a smartphone or tablet app	**6.2 We are Project Managers** This unit will enable the children to: • scope a project to identify different components that must be successfully combined • identify their existing talents and plan how they can • develop further knowledge and skills • identify the component tasks of a project and develop a timeline to track	**6.3 We are Market Researchers** This unit will enable the children to: • create a set of good survey questions • analyse the data obtained from a survey • work collaboratively to plan questions • conduct an interview or focus group • analyse and interpret the information obtained from interviews or a focus group • present their research findings	**6.4 We are Interface Designers** This unit will enable the children to: • work collaboratively to design the app's interface • use wire-framing tools to create a design prototype of their app • develop or source the individual interface components (media assets) they will use • address accessibility and inclusion issues • document their design decisions and	**6.5 We are Mobile App Developers** This unit will enable the children to: • become familiar with another programming toolkit or development platform • import existing media assets to their project • write down the algorithms for their app program • debug and refine the code for their app thoroughly test and evaluate their app	**6.6 We are Marketers** This unit will enable the children to: • consider key marketing messages, including identifying a unique selling point • develop a printed flyer or brochure incorporating text and images further • develop knowledge, skills and understanding in relation to creating a website • further develop skills

		progress • identify the resources they'll need to accomplish a project • use web-based research skills to source tools, content and other resources • consider strategies to ensure the quality of a collaborative project		the process they've followed		relating to shooting and editing video
Y6 Online Safety	**6.1 We are online safety ambassadors** Reviewing and editing our online safety rules This online safety unit will enable the children to: • Consider online safety scenarios encountered in Year 5 (both at school and at home) and appreciate how these new experiences can be used to update their online safety rules. • Consider what new strategies they can apply to online safety scenarios, such as using reporting buttons within websites and apps. • Review and edit their online safety guidelines. • Develop their online safety rules so they are easily understood and appropriate for	**6.2 We will not share inappropriate images** Inappropriate use of technology and the internet – nude selfies This online safety unit will enable the children to: • Understand the negative consequences of sharing nude selfies. • Develop confidence in saying no when they are posed with a request for inappropriate and/or indecent images of themselves. • Understand that once an image is online, it stays online forever. • Understand what is meant by nude selfies and learn that, sending, sharing and storing inappropriate images of Under-18s is a crime.	**6.3 We are safe social networkers** Understanding that internet safety skills must always be switched on This online safety unit will enable the children to: • Understand that most online sites and apps require an account holder to be a minimum of 13 years old. • Understand that they should check and adhere to the age restrictions of a site or app. • Understand why age restrictions apply to online communication tools. • Develop resilience to online behaviour and influences in an unfamiliar setting. • Learn how to use appropriate social networking sites safely.	**6.4 We are respectful of others** Respecting the personal information and privacy of others This online safety unit will enable the children to: • Consider online safety scenarios encountered in Year 5 (both at school and at home) and appreciate how these new experiences can be used to update their online safety rules. • Consider what new strategies they can apply to online safety scenarios, such as using reporting buttons within websites and apps. • Review and edit their online safety guidelines. • Develop their online safety rules so they are easily	**6.5 We are online safety problem solvers** Using our skills to resolve unfamiliar situations This online safety unit will enable the children to: • Develop confidence in their ability to act appropriately when confronted with unfamiliar situations involving technology and the internet. • Revisit the key concepts of digital citizenship.	**6.6 We are safe gaming experts** Creating and delivering advice on safe online gaming This online safety unit will enable the children to: • Understand the risks involved with online gaming, including exposure to inappropriate content, grooming, bullying, trolling and the use of bribery tactics. • Understand that research and parental controls and device settings are tools we can use to help us game safely and confidently. • Apply their knowledge of safe gaming practices to plan and deliver an assembly to other children and/or parents. • Consolidate

Year 6 pupils.			understood and appropriate for Year 6 pupils.		everything they have learnt about age-appropriate online gaming in preparation for their transition to KS3.