Rockmount Primary School Subject Curriculum Map Computing

Nursery	**Autumn 1**	**Autumn 2**	**Spring 1**	**Spring 2**	**Summer 1**	**Summer 2**
	Getting to Know Each Other Children are taught to: • use the IWB to play maths and phonics games	**Autumn Is All Around** Children are taught to: • use the IWB to play maths and phonics games.	**Passport Around the World** Children are taught to: • experiment with remote controlled toys	**Jurassic Journey** Children are taught to: • use painting and graphics apps on the iPad to develop fine motor control	**Under the Sea** Children are taught to: • use painting and graphics apps on the iPad to develop fine motor control	**What's Up There? (Space)** Children are taught to: • explore controlling the Bee Bots
Reception	**Autumn 1**	**Autumn 2**	**Spring 1**	**Spring 2**	**Summer 1**	**Summer 2**
	The Wonderful World of Fairy Tales Children are taught to: • know and talk about sensible amounts of 'screen time' • listen to online safety stories	**Food and Festivals** Children are taught to: • use a keyboard and mouse to develop fine motor control	**Superheroes and People who Help Us** Children are taught to: • record and play back sounds • manipulate objects on screen	**Spring and New Life** Children are taught to: • use walkie talkies to communicate with each other and play back sounds	**Animals** Children are taught to: • control remote controlled toys • create a route for Bee Bots to follow	**Water** Children are taught to: • take digital photos of their own learning and talk about what they can see • record video clips of their own learning
Online Safety (Project Evolve)	**Self-Image and Identity:** I can recognise, online or offline, that anyone can say 'no' - 'please stop' - 'I'll tell' - 'I'll ask' to somebody who makes them feel sad, uncomfortable, embarrassed or upset. **Online Bullying:** I can describe ways that some people can be unkind online.	**Managing Online Information:** I can identify devices I could use to access information on the internet. **Health, Well-being and Lifestyle:** I can identify rules that help keep us safe and healthy in and beyond the home when using technology. I can give some simple examples of these rules	**Privacy and Security:** I can identify some simple examples of my personal information (e.g., name, address, birthday, age, location). I can describe who would be trustworthy to share this information with; I can explain why they are trusted.	**Copyright and Ownership:** I know that work I create belongs to me. I can name my work so that others know it belongs to me. **Managing Online Information:** I can talk about how to use the internet as a way of finding information	**Online Relationships:** I can recognise some ways in which the internet can be used to communicate. I can give examples of how I (might) use technology to communicate with people I know	**Online Reputation:** I can identify ways that I can put information on the internet. **Online Bullying:** I can offer examples of how I this can make others feel
Year 1	**Autumn 1**	**Autumn 2**	**Spring 1**	**Spring 2**	**Summer 1**	**Summer 2**
	We are treasure hunters Children are taught to: • understand what algorithms are, how they are implemented as programs on digital devices • create and debug simple programs • use logical reasoning to predict the behaviour of simple programs	**We are tv chefs** Children are taught to: • understand what algorithms are • use technology purposefully to create, organise, store, manipulate and retrieve digital content • recognise common uses of information technology beyond school	**We are digital artists** Children are taught to: • use technology purposefully to create, organise, store, manipulate and retrieve digital content • recognise common uses of information technology beyond school	**We are publishers** Children are taught to: • use technology purposefully to create, organise, store, manipulate and retrieve digital content • use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies • recognise common uses of information technology beyond school	**We are rhythmic** Children are taught to: • use technology purposefully to create, organise, store, manipulate and retrieve digital content • understand what algorithms are	**We are detectives** Children are taught to: • 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
Online Safety (Project Evolve)	**Managing Online Information:** I can give simple examples of how to find information using	**Online Relationships:** I can give examples of when I should ask permission to do	**Self-Image and Identity:** I can recognize that there may be people online who could make	**Privacy and Security:** I can explain how passwords are used to protect information,	**Copyright and Ownership:** I can save my work under a suitable title or name so that	**Health, Well-being and Lifestyle:**

	digital technologies, e.g., search engines, voice activated searching. I know / understand that we can encounter a range of things online including things we like and don't like as well as things which are real or make believe / a joke. I know how to get help from a trusted adult if we see content that makes us feel sad, uncomfortable, worried or frightened.	something online and explain why this is important. I can use the internet with adult support to communicate with people I know (e.g., video call apps or services). **Online Bullying:** I can describe how to behave online in ways that do not upset others and can give examples.	someone feel sad, embarrassed or upset. If something happens that makes me feel sad, worried, uncomfortable or frightened I can give examples of when and how to speak to an adult I can trust and how they can help. **Online Reputation:** I can recognise that information can stay online and could be copied. I can describe what information I should not put online without asking a trusted adult first.	accounts and devices. I can recognise more detailed examples of information that is personal to someone (e.g., where someone lives and goes to school, family names). I can explain why it is important to always ask a trusted adult before sharing any personal information online, belonging to myself or others. **Online Relationships:** I can explain why it is important to be considerate and kind to people online and to respect their choices. I can explain why things one person finds funny or sad online may not always be seen in the same way by others.	others know it belongs to me (e.g., filename, name on content). I can understand that work created by others does not belong to me even if I save a copy.	I can explain rules to keep myself safe when using technology both in and beyond the home. **Copyright and Ownership** I can explain why work I create using technology belongs to me. I can say why it belongs to me (e.g., 'I designed it' or 'I filmed it').
Resources	Software: Blue-Bot app (optional, alternatives: programming interface for alternative toys) Hardware: Blue-Bot (alternatives: Cubetto, Bee-Bot, Roamer Too, STEM Robot Mouse). If robot toys are not available the Blue-Bot app or the Scratch Bee-Bot emulator can be used instead.	Software: Camera and iMovie apps on the iPad (alternatives: video editing software such as WeVideo or Microsoft Photos) Hardware: iPads, ideally with tripods and clamps (alternatives: desktop/laptop computers and cameras with movie mode, or Android tablets)	Software: Brushes Redux and Autodesk SketchBook (alternatives: Microsoft Paint, Paint 3D, PaintZ for Chromebook) Hardware: iPads (alternatives: laptop/desktop computers, Android tablets), styluses (optional)	Software: Book Creator, Google Photos (alternatives: Google Slides, Microsoft PowerPoint) Hardware: iPads (alternatives: laptop/desktop/Chromebook computers)	Software: ScratchJr app and GarageBand (alternatives: Scratch, Audacity, LMMS, Soundtrap) Hardware: iPads (alternatives: laptop/desktop/Chromebook computers)	Software: Popplet, Google Forms, Google Sheets (alternatives: FreeMind, Bubbl.us, MindMeister, Microsoft Forms, Microsoft Excel) Hardware: iPads (alternatives: laptop/desktop computers, Chromebooks or Android tablets)
Year 2	**Autumn 1**	**Autumn 2**	**Spring 1**	**Spring 2**	**Summer 1**	**Summer 2**
	We are astronauts Children are taught to: • understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions • create and debug simple programs • use logical reasoning to predict the behaviour of simple programs	**We are researchers** Children are taught to: • use technology purposefully to create, organise, store, manipulate and retrieve digital content • use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies	**We are animators** Children are taught to: • use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies • recognise common uses of information technology beyond school	**We are games testers** Children are taught to: • understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions • create and debug simple programs	**We are zoologists** Children are taught to: • use technology purposefully to create, organise, store, manipulate and retrieve digital content • recognise common uses of information technology beyond school	**We are photographers** Children are taught to: • use technology purposefully to create, organise, store, manipulate and retrieve digital content • recognise common uses of information technology beyond school
Online Safety (Project Evolve)	**Health, Well-being and Lifestyle:** I can explain simple guidance for using technology in different environments and settings e.g., accessing online technologies in public places and the home environment. I can say how those rules/guides can help anyone accessing online technologies.	Managing Online Information: I can use simple keywords in search engines I can demonstrate how to navigate a simple webpage to get to information I need (e.g., home, forward, back buttons; links, tabs and sections). I can explain what voice activated searching is and how it might be used, and know it is	**Copyright and Ownership:** I can recognise that content on the internet may belong to other people. I can describe why other people's work belongs to them. **Online Relationships** I can give examples of how someone might use technology to	**Online Relationships** I can describe different way to ask for, give, or deny my permission online and can identify who can help me if I am not sure. I can explain why I have a right to say 'no' or 'I will have to ask someone'. I can explain who can help me if I feel under pressure to agree to	**Self-Image and Identity:** I can explain how other people may look and act differently online and offline I can give examples of issues online that might make someone feel sad, worried, uncomfortable or frightened; I can give examples of how they might get help. **Privacy and Security**	**Online Reputation** I can describe how anyone's online information could be seen by others. I know who to talk to if something has been put online without consent or if it is incorrect.

	Online Bullying I can explain what bullying is, how people may bully others and how bullying can make someone feel. I can explain why anyone who experiences bullying is not to blame. I can talk about how anyone experiencing bullying	not a real person (e.g., Alexa, Google Now, Siri). I can explain the difference between things that are imaginary, 'made up' or 'make believe' and things that are 'true' or 'real'. I can explain why some information I find online may not be real or true. **Online Reputation** I can explain how information put online about someone can last for a long time.	communicate with others they don't also know offline and explain why this might be risky (e.g., email, online gaming, a pen-pal in another school/country). I can explain who I should ask before sharing things about myself or others online.	something I am unsure about or don't want to do. I can identify who can help me if something happens online without my consent. I can explain how it may make others feel if I do not ask their permission or ignore their answers before sharing something about them online. I can explain why I should always ask a trusted adult before clicking 'y's', 'agree' or 'accept' online.	I can explain how passwords can be used to protect information, accounts and devices. I can explain and give examples of what is meant by 'private' and 'keeping things private'. I can describe and explain some rules for keeping personal information private (e.g., creating and protecting passwords). I can explain how some people may have devices in their homes connected to the internet and give examples (e.g., lights, fridges, toys, televisions).	
Resources	Software: Camera and Photos apps, Snapseed (alternatives: Pixlr, Windows Photos) Hardware: iPads (alternatives: Android tablets, laptop/desktop/Chromebook computers and digital cameras)	Software: Popplet, Google Slides, Google custom search (alternatives: FreeMind, Microsoft PowerPoint, Keynote) Hardware: iPads (alternatives: desktop/laptop/Chromebook computers or Android tablets)	Software: Stop Motion Studio (alternatives: iStopMotion, Zu3D, Stop Motion Animator) Hardware: iPads (alternatives: Android tablets, laptop/desktop/Chromebook computers and digital cameras)	Software: Scratch, FixTheFactory (alternative: Blockly Games) Hardware: iPads/Android tablets, laptops/desktop/Chromebook computers for Scratch	Software: Google Sheets, Google Docs, Google My Maps, Google Slides, Camera and Photos apps (alternatives: Microsoft Excel/Word/PowerPoint, Windows Maps, Microsoft Photos) Hardware: iPads (alternatives: laptop/desktop/Chromebook computers and digital cameras)	Software: ScratchJr (alternative: Scratch) Hardware: iPads (alternatives: Android tablets, laptop/desktop/Chromebook computers, Bee-Bots, Blue-Bots)
Year 3	**Autumn 1**	**Autumn 2**	**Spring 1**	**Spring 2**	**Summer 1**	**Summer 2**
	We are Programmers (Programming) Children are taught to: • 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 • 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	**We are bug fixers (Computational Thinking)** Children are taught to: • 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	**We are Presenters (Creativity)** Children are taught to: • use sequence, selection, and repetition in programs; work with variables and various forms of input and output • select, use and combine a variety of software 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	**We are who we are (Computer Networks)** Children are taught to: • select, use and combine a variety of software to design and create a range of programs, systems and content that accomplish given goals, including presenting information • use technology safely, respectfully and responsibly	**We are co-authors (Communication/ Collaboration)** Children are taught to: • 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 • use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content	**We are opinion pollsters (Productivity)** Children are taught to: • 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

Online Safety (Project Evolve)	**Online Relationships:** I can describe ways people who have similar likes and interests can get together online. I can explain what it means to 'know someone' online and why this might be different from knowing someone offline. I can explain what is meant by 'trusting someone online', why this is different from 'liking someone online', and why it is important to be careful about who to trust online including what information and content they are trusted with. I can explain why someone may change their mind about trusting anyone with something if they feel nervous, uncomfortable or worried. I can explain how someone's feelings can be hurt by what is said or written online. I can explain the importance of giving and gaining permission before sharing things online; how the principles of sharing online is the same as sharing offline (e.g., sharing images and videos).	**Online Bullying:** I can describe appropriate ways to behave towards other people online and why this is important. I can give examples of how bullying behaviour could appear online and how someone can get support	**Self-Image and Identity** I can explain what is meant by the term 'identity'. I can explain how people can represent themselves in different ways online. I can explain ways in which someone might change their identity depending on what they are doing online (e.g., gaming; using an avatar; social media) and why.	**Managing Online Information** I can demonstrate how to use key phrases in search engines to gather accurate information online. I can explain what autocomplete is and how to choose the best suggestion. I can explain how the internet can be used to sell and buy things. **Privacy and Security** I can describe simple strategies for creating and keeping passwords private. I can give reasons why someone should only share information with people they choose to and can trust. I can explain that if they are not sure or feel pressured then they should tell a trusted adult. I can describe how connected devices can collect and share anyone's information with others.	**Online Reputation:** I can explain how to search for information about others online I can give examples of what anyone may or may not be willing to share about themselves online. I can explain the need to be careful before sharing anything personal. I can explain who someone can ask if they are unsure about putting something online. **Health, Well-being and Lifestyle** I can explain why spending too much time using technology can sometimes have a negative impact on anyone; I can give some examples of both positive and negative activities where it is easy to spend a lot of time engaged. I can explain why some online activities have age restrictions, why it is important to follow them and know who I can talk to if others pressure me to watch or do something online that makes me feel uncomfortable (e.g., age restricted gaming or websites)	**Managing Online Information:** I can explain the difference between a 'belief', an 'opinion' and a 'fact' and can give examples of how and where they might be shared online, e.g., in videos, memes, posts, new stories etc. I can explain that not all opinions shared may be accepted as true or fair by others (e.g., monsters under the bed). I can describe and demonstrate how we can get help from a trusted adult if we see content that makes us feel sad, uncomfortable, worried or frightened. **Copyright and Ownership** I can explain why copying someone else's work from the internet without permission isn't fair and can explain what problems this might cause.
Resources	Software: Scratch (alternative: ScratchJr) Hardware: Laptop/desktop/Chromebook computers or tablets, cameras and microphones (if needed)	Software: Scratch (alternative: Snap!), screen recorder software Hardware: Laptop/desktop/Chromebook computers or tablets, microphones (if needed)	Software: Popplet, iMovie (alternatives: Camera app, Microsoft Photos, Adobe Premiere Elements) Hardware: iPad, green screen background (with good lighting), tripod and iPad mount	Software: Google Slides (alternative: Microsoft PowerPoint), Audacity (alternatives: iPad voice recorder, other audio recorders) Hardware: Laptop/desktop/Chromebook computers, or iPads/Android tablets	Software: Google Sites, Popplet Hardware: Laptop/desktop computers (alternatives: iPads or Chromebooks)	Software: Google Forms/Sheets/Slides/Drive (alternatives: Microsoft equivalents, j2vote, j2data and j2office) Hardware: Laptop/desktop/Chromebook computers and iPads/Android tablets (optional)
Year 4	**Autumn 1**	**Autumn 2**	**Spring 1**	**Spring 2**	**Summer 1**	**Summer 2**
	We are software developers Children are taught to: • design, write and debug programs that accomplish specific goals • use sequence, selection, and repetition in programs; work with variables and various forms of input and output • use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.	**We are bloggers** Children are taught to: • understand computer networks including the Internet; how they can provide multiple services, such as the World Wide Web; and the opportunities they offer for communication and collaboration • use a variety of software (including Internet services) on a range of digital devices to design and create a range	**We are meteorologists** Children are taught to: • work with variables and various forms of input and output. • use logical reasoning to explain how some simple algorithms work • 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	**We are musicians** Children are taught to: • use sequence and repetition; work with various forms of input and output. • be discerning in evaluating digital content. • select, use and combine a variety of software on a range of digital devices to design and create a range of content that accomplishes given goals • use technology safely, respectfully and responsibly;	**We are artists** Children are taught to: • use sequence, selection and repetition in programs; work with variables and various forms of output • select, use and combine a variety of software (including Internet services) on a range of digital devices to design and create a range of content that accomplish given goals.	**We are makers** Children are taught to: • design, write and debug programs that accomplish specific goals • use sequence, selection and repetition in programs; work with variables and various forms of input and output • use logical reasoning to explain how some simple algorithms work.

		of content that accomplish given goals • use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour	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	recognise acceptable/unacceptable behaviour		
Online Safety (Project Evolve)	**Health, Well-being and Lifestyle** I can explain how using technology can be a distraction from other things, in both a positive and negative way. I can identify times or situations when someone may need to limit the amount of time they use technology e.g. I can suggest strategies to help with limiting this time. **Online Relationships** I can describe strategies for safe and fun experiences in a range of online social environments (e.g., livestreaming, gaming platforms). I can give examples of how to be respectful to others online and describe how to recognize healthy and unhealthy online behaviours.	**Privacy and Security** I can describe strategies for keeping personal information private, depending on context. I can explain that internet use is never fully private and is monitored, e.g., adult supervision I can describe how some online services may seek consent to store information about me; I know how to respond appropriately and who I can ask if I am not sure. I know what the digital age of consent is and the impact this has on online services asking for consent	**Managing Online Information** I can analyse information to make a judgement about probable accuracy and I understand why it is important to make my own decisions regarding content and that my decisions are respected by others. I can describe how to search for information within a wide group of technologies and make a judgement about the probable accuracy (e.g., social media, image sites, video sites). I can describe some of the methods used to encourage people to buy things online (e.g., advertising offers; in-app purchases, pop-ups) and can recognise some of these when they appear online. I can explain why lots of people sharing the same opinions or beliefs online do not make those opinions or beliefs true. I can explain that technology can be designed to act like or impersonate living things (e.g., bots) and describe what the benefits and the risks might be I can explain what is meant by fake news e.g., why some people will create stories or alter photographs and put them online to pretend something is true when it isn't	**Online Reputation** I can describe how to find out information about others by searching online. I can explain ways that some of the information about anyone online could have been created, copied or shared by others	Copyright and Ownership When searching on the internet for content to use, I can explain why I need to consider who owns it and whether I have the right to reuse it. **Online Bullying:** I can recognise when someone is upset, hurt or angry online. I can describe ways people can be bullied through a range of media (e.g., image, video, text, chat). I can explain why people need to think carefully about how content they post might affect others, their feelings and how it may affect how others feel about them (their reputation)	**Self-Image and Identity:** I can explain how my online identity can be different to my offline identity. I can describe positive ways for someone to interact with others online and understand how this will positively impact on how others perceive them. I can explain that others online can pretend to be someone else, including my friends, and can suggest reasons why they might do this **Copyright and Ownership** I can give some simple examples of content which I must not use without permission from the owner, e.g., videos, music, images
Resources	Software: Scratch (alternative: Snap!) Hardware: Laptop/desktop/Chromebook computers or tablets, microphones (optional)	Software: Blogging tool such as WordPress or Blogger (alternative: Seesaw), Audacity, iMovie, Camera app, Snapseed Hardware: Laptop/desktop computers, digital cameras, audio recorders/tablets	Software: Google Sheets and Slides (alternatives: Microsoft Excel and PowerPoint) Hardware: Laptop/desktop/Chromebook computers or tablets, Smart home weather station or other equipment for measuring for weather	Software: GarageBand Hardware: iPads, headphones, musical instruments such as MIDI keyboards (optional)	Software: Inkscape (alternatives: Vectornator X for the iPad or Google Draw on Chromebooks) and Scratch (alternative: Logo) Hardware: Laptop/desktop/Chromebook computers or tablets	Software: Microsoft MakeCode for the micro:bit (online) Hardware: Laptop/desktop computers, BBC micro:bits (with USB cables and battery packs)

Year 5	**Autumn 1** **We are adventure gamers** Children are taught to: • use search technologies effectively • use a variety of software (including Internet services) on a range of digital devices to design and create content that accomplish given goals, including presenting information • use technology safely, respectfully and responsibly	**Autumn 2** **We are architects** Children are taught to: • 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 information	**Spring 1** **We are web developers** Children are taught to: • understand computer networks including the Internet; how they can provide multiple services, such as the World Wide Web; and the opportunities they offer for communication and collaboration • select, use and combine a variety of software (including Internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information • use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact • be discerning in evaluating digital content	**Spring 2** **We are cryptographers** Children are taught to: • use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs • understand computer networks including the Internet; how they can provide multiple services, such as the World Wide Web; and the opportunities they offer for communication and collaboration • use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact	**Summer 1** **We are game developers** Children are taught to: • design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems and solving 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	**Summer 2** **We are VR designers** Children are taught to: • 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 • 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 information
Online Safety (Project Evolve)	**Copyright and Ownership:** I can assess and justify when it is acceptable to use the work of others. **Online Relationships:** I can give examples of technology-specific forms of communication (e.g., emojis, memes and GIFS). I can explain that there are some people I communicate with online who may want to do me or my friends harm. I can recognize that this is not my / our fault. I can describe some of the ways people may be involved in online communities and describe how they might collaborate constructively with others and make positive contributions (e.g., gaming communities or social media groups). I can explain how someone can get help if they are having	**Managing Online Information** I can explain the benefits and limitations of using different types of search technologies e.g., voice-activation search engine. I can explain how some technology can limit the information I am presented with. I can explain what is meant by 'being sceptical'; I can give examples of when and why it is important to be 'sceptical'. I can evaluate digital content and can explain how to make choices about what is trustworthy e.g., differentiating between adverts and search results. I can explain key concepts including: information, reviews, fact, opinion, belief, validity, reliability and evidence. **Self-Image and Identity** I can explain how identity online can be copied, modified or altered. I can demonstrate	**Managing Online Information** I can identify ways the internet can draw us to information for different agendas, e.g., website notifications, pop-ups, targeted ads. I can describe ways of identifying when online content has been commercially sponsored or boosted (e.g., by commercial companies or by vloggers, content creators, influencers). I can explain what is meant by the term 'stereotype', how 'stereotypes' are amplified and reinforced online, and why accepting 'stereotypes' may influence how people think about others. I can describe how fake news may affect someone's emotions and behaviour and explain why this may be harmful. I can explain what is meant by a 'hoax'. I can explain why someone would need to think carefully before they share.	**Online Bullying** I can recognise online bullying can be different to bullying in the physical world and can describe some of those differences. I can describe how what one person perceives as playful joking and teasing (including 'banter') might be experienced by others as bullying. I can explain how anyone can get help if they are being bullied online and identify when to tell a trusted adult. I can identify a range of ways to report concerns and access support both in school and at home about online bullying. I can explain how to block abusive users. I can describe the helpline services which can help people experiencing bullying, and how to access them (e.g., Childline or The Mix).	**Copyright and Ownership** I can give examples of content that is permitted to be reused and know how this content can be found online. **Privacy and Security** I can explain what a strong password is and demonstrate how to create one. I can explain how many free apps or services may read and share private information (e.g., friends, contacts, likes, images, videos, voice, messages, geolocation) with others. I can explain what app permissions are and can give some examples.	**Online Reputation** I can search for information about an individual online and summarise the information found. I can describe ways that information about anyone online can be used by others to make judgements about an individual and why these may be incorrect. **Health, Well-being and Lifestyle** I can describe ways technology can affect health and wellbeing both positively (e.g., mindfulness apps) and negatively. I can describe some strategies, tips or advice to promote health and well-being with regards to technology. I recognise the benefits and risks of accessing information about health and well-being online and how we should balance this with talking to

	problems and identify when to tell a trusted adult. I can demonstrate how to support others (including those who are having difficulties online).	how to make responsible choices about having an online identity, depending on context				trusted adults and professionals. I can explain how and why some apps and games may request or take payment for additional content (e.g., in-app purchases, loot boxes) and explain the importance of seeking permission from a trusted adult before purchasing.
Resources	Software: Google Slides (alternative: Microsoft PowerPoint), voice recorder Hardware: Laptop/desktop/Chromebook computers or iPads (reduced functionality)	Software: Trimble SketchUp (alternatives: CoSpaces and Minecraft Education Edition), a screen recorder Hardware: Laptop/desktop/Chromebook computers or tablets	Software: Google Chrome, Google Sites Hardware: Laptop/desktop/Chromebook computers or tablets	Software: Scratch Hardware: Laptop/desktop/Chromebook computers or tablets	Software: Scratch (alternatives: Snap! or Kodu) Hardware: Laptop/desktop/Chromebook computers or tablets, microphones (optional)	Software: Google Street View (Google Maps app), GarageBand (alternative: Voice Recorder), CoSpaces Hardware: iPads/tablets (alternatives: smartphones, Google Cardboard)
Year 6	**Autumn 1**	**Autumn 2**	**Spring 1**	**Spring 2**	**Summer 1**	**Summer 2**
	We are toy makers Children are taught to: • design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems • use sequence, selection, and repetition in programs; work with 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	**We are computational thinkers** Children are taught to: • design, write and debug programs that accomplish specific goals • use sequence, selection and repetition in programs; work with variables and various forms of input and output • use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs	**We are publishers** Children are taught to: • understand computer networks including the Internet and the opportunities they offer for communication and collaboration • use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content • select, use and combine a variety of 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	**We are connected** Children are taught to: • understand the opportunities computer networks offer for communication and collaboration • use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content • use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content	**We are advertisers** Children are taught to: • 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	**We are AI developers** Children are taught to: • design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts • use and combine a variety of software 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
Online Safety (Project Evolve)	**Health, Well-being and Lifestyle** I can describe common systems that regulate age related content (e.g., PEGI, BBFC, parental warnings) and describe their purpose. I recognise and can discuss the pressures that technology can place on someone and how / when they could manage this. I can recognise features of persuasive design and how they	**Privacy and Security** I can describe effective ways people can manage passwords (e.g., storing them securely or saving them in browser). I can explain what to do if a password is shared, lost or stolen. I can describe how and why people should keep their software and apps up to date, e.g., auto updates. I can describe simple ways to increase privacy on apps and	**Managing Online Information** I can explain how search engines work and how results are selected and ranked. I can explain how to use search technologies effectively. I can describe how some online information can be opinion and can offer examples I can explain how and why some people may present 'opinions' as 'facts'; why the popularity of an opinion or the personalities of	**Managing Online Information** I can define the terms 'influence', 'manipulation' and 'persuasion' and explain how someone might encounter these online (e.g., advertising and 'ad targeting' and targeting for fake news). I understand the concept of persuasive design and how it can be used to influence peoples' choices	**Managing Online Information** I can describe the difference between online misinformation and dis-information. I can explain why information that is on a large number of sites may still be inaccurate or untrue. I can assess how this might happen (e.g., the sharing of misinformation or disinformation).	**Online Relationships** I can explain how sharing something online may have an impact either positively or negatively. I can describe how to be kind and show respect for others online including the importance of respecting boundaries regarding what is shared about them online and how to support them if others do not.

	are used to keep users engaged (current and future use). I can assess and action different strategies to limit the impact of technology on health (e.g., night-shift mode, regular breaks, correct posture, sleep, diet and exercise). **Online Reputation** I can explain the ways in which anyone can develop a positive online reputation. I can explain strategies anyone can use to protect their 'digital personality' and online reputation, including de	services that provide privacy settings. I can describe ways in which some online content targets people to gain money or information illegally; I can describe strategies to help me identify such content (e.g., scams, phishing). I know that online services have terms and conditions that govern their use.	those promoting it does not necessarily make it true, fair or perhaps even legal. **Online Bullying** I can describe how to capture bullying content as evidence (e.g., screengrab, URL, profile) to share with others who can help me. I can explain how someone would report online bullying in different contexts.	I can demonstrate how to analyse and evaluate the validity of 'facts' and information and I can explain why using these strategies are important I can explain how companies and news providers target people with online news stories they are more likely to engage with and how to recognise this. **Copyright and Ownership** I can demonstrate the use of search tools to find and access online content which can be reused by others. I can demonstrate how to make references to and acknowledge sources I have used from the internet.	I can identify, flag and report inappropriate content. **Self-Image and Identity** I can identify and critically evaluate online content relating to gender, race, religion, disability, culture and other groups, and explain why It is important to challenge and reject inappropriate representations online. I can describe issues online that could make anyone feel sad, worried, uncomfortable or frightened I know and can give examples of how to get help, both on and offline. I can explain the importance of asking until I get the help needed.	I can describe how things shared privately online can have unintended consequences for others (e.g., screengrabs). I can explain that taking or sharing inappropriate images of someone (e.g., embarrassing images), even if they say it is okay, may have an impact for the sharer and others; and who can help if someone is worried about this
Resources	Software: MakeCode (alternative: Scratch) Hardware: Laptop/desktop/Chromebook computers or tablets, BBC micro:bits	Software: Google Maps, Scratch (alternative: Snap!) Hardware: Laptop/desktop/Chromebook computers or iPads, unplugged resources	Software: Google Docs (alternatives: Book Creator, Microsoft Word), Microsoft Publisher Hardware: Laptop/desktop computers, digital cameras, iPads	Software: School blogging platform (such as WordPress), Padlet Hardware: Laptop/desktop/Chromebook computers or iPads	Software: iMovie (alternatives: Microsoft Videos and WeVideo) Hardware: Laptop/desktop/Chromebook computers, digital cameras/tablets	Software: Scratch (Machine Learning for Kids version), Audacity, Google Chrome Hardware: Laptop/desktop/Chromebook computers, iPads, smart speaker (Google Home/Amazon Echo) optional