LincolnCarlton ACADEMY

The Computing Curriculum

2025 – 2026

Intent	At Lincoln Carlton Academy, we strive to deliver a computing curriculum that will equip our students with the knowledge and skills required to be independent and responsible citizens in an ever changing and evolving digital society. This includes making sure they know how to stay safe online and how to manage their own behaviour in a virtual world. As students begin to access more digital platforms, we give them and their parents the skills to identify areas of concern and build knowledge about staying safe. As a school we see students accessing platforms which aren't suitable and we support them understanding what is age appropriate and in managing themselves with appropriate behaviour and where to report to in event of safeguarding concern is. This is why Computing is taught weekly at our school. Our curriculum, which has all the essential elements of the NC and beyond, has been developed to increase understanding of online safety, has also been designed to build knowledge in small steps in order for students to learn more, remember more and make connections with their prior learning. The Teach Computing curriculum has been carefully adapted to suit the individual needs of our pupils in school and is under constant review to ensure the content and knowledge taught is relevant and appropriate. The materials are suitable for all pupils irrespective of their skills, background, and additional needs. This means Computing lessons are both engaging and inclusive. Our curriculum provides progressive teaching of skills from year group to year group, starting in EYFS, and enables students to practice skills, apply their knowledge and solve problems across a range of subjects and areas. This means that each of the themes is revisited regularly (at least once in each year group), and pupils revisit each theme through a new unit that consolidates and builds on prior learning within that theme. This style of curriculum design reduces the amount of knowledge lost through forgetting, as topics are revisited yearly.
Implementatio	The Teach Computing Curriculum has been written to support all pupils. Each lesson is sequenced so that it builds on the learning from the previous lesson, and where appropriate, activities are scaffolded so that all pupils can succeed and thrive. Scaffolded activities provide pupils with extra resources, such as visual prompts, to reach the same learning goals as the rest of the class. Exploratory tasks foster a deeper understanding of a concept, encouraging pupils to apply their learning in different contexts and make connections with other learning experiences. In all of our Computing lessons, there is emphasis on key vocabulary so that our children develop their knowledge and understanding of subject specific terminology. Children have access to this vocabulary on their knowledge planners and this often forms part of our CTMM strategies. This includes low stakes quizzing to ensure learned knowledge is retained. To further support our learners with SEND, our teachers use a range of strategies including scaffolding, flexible groupings, technology and guided practice. Children have access to this vocabulary on their knowledge planners and this often forms part of our CTMM strategies. This includes low stakes quizzing to ensure learned knowledge is retained. To further support our learners with SEND, our teachers use a range of strategies including; scaffolding, flexible groupings, technology and guided practice.
Impact	Teachers can pinpoint pupils' progress through formative mini quizzes, skilled questioning and through pupil reflections. Formative assessment is woven into the design of each lesson and summative assessments occur at key points within the units.

LCA Computing Overview						Project Evolve
	Autumn 1	**Autumn 2**	**Spring 1**	**Spring 2**	**Summer 1**	**Summer 2**
EYFS	Computing systems and Networks	Creating media – Sounds and Images	Programming A	Managing Online Information – Privacy and ownership	Creating media – Communication	Programming B
Year 1	Technology Around Us Online Relationships	Digital Painting Self-Image and Identity	Moving a Robot	Managing Online Information Privacy and Ownership	Digital Writing	Programming Animations
Year 2	Technology Around Us Online Relationships	Digital Photography Self-Image and Identity Online Bullying (PSHE)	Robot Algorithms	Managing Online Information Privacy and Security	Making Music Online Reputation (PSHE)	An Introduction to Quizzes Online Relationships
Year 3	Connecting Computers Online Relationships	Stop-Frame Animation Self-Image and Identity (PSHE) Online Relationships (PSHE) Online Bullying (PSHE)	Branching Databases Online Reputation (PSHE) Online Relationships (PSHE)	Managing Online Information Privacy and Security	Desktop Publishing Health, Well-Being and Lifestyle	Events and Actions in Programs
Year 4	The Internet Online Reputation	Audio Production Self-Image and Identity Online Bullying (PSHE)	Repetition in Shapes	Managing Online Information	Photo Editing Self-Image and Identity (PSHE) Health, Well-being and Lifestyle (PSHE) Privacy and Security (PSHE)	Repetition in Games
Year 5	An introduction to Artificial Intelligence Online Reputation Online Relationships (PSHE)	Video Production Self-Image and Identity Online Bullying (PSHE)	Selection in Physical Computing	Managing Online Information Privacy and Security	Flat-File Databases Health, Well-being and Lifestyle (PSHE)	Selection in Quizzes
Year 6	Internet Communication Online Reputation	Webpage Creation Self-Image	Selection in Physical Computing	Managing Online Information Privacy and Security	Introduction to Spreadsheets Online Relationships (PSHE)	Sensing

Computing and children with Special Educational Needs

The graduated approach handbook for SEND students should be used to provide the simple, everyday strategies that should be employed to support learners in the classroom. The strategies below are aimed more specifically at adapting the computing curriculum for SEND learners.

Provide assistive resources, such as templates or diagrams, to support pupils' input.	Low-arousal areas Pupils on the autistic spectrum may become deeply involved in working in isolation on a computer. They will benefit from clear preparation and support when returning to a group.	Make sure all pupils have appropriate breaks in tasks such as data entry.	ICT offers a wide range of possibilities for responses, many of them visual. Ensure that the audio channel is also offered. A sound recording linked to a simple presentation can be highly effective.	Multi-sensory approaches Choose resources and tasks that support alternative ways of communicating, eg presentations that use relevant digital video- or audio-editing software.	Adjust the screen resolution, or use a bigger screen, for pupils with a visual impairment.
Ensure an appropriate contrast between background and text.	Use collaborative tools like blogs, wikis and podcasts to enable pupils to make a positive contribution.	Exploit the possibilities of encouraging talk in front of a computer screen between pupils who are nervous about face-toface discussion and eye contact.	Demonstrate software in short, achievable steps for pupils who, for example, may have a poor concentration span or poor motor skills.	Leave enough time to consolidate pupils' learning away from the computer screen.	Students' independence can be supported by an appropriate form of e-portfolio, depending on their preferred mode of communication

EYFS						
EYFS	**Autumn 1**	**Autumn 2**	**Spring 1**	**Spring 2**	**Summer 1**	**Summer 2**
	<u>Computing systems and networks</u> To explore technology in the school, home and wider world. To know how to take a photo using an iPad. Linked opportunities – technology hunt, leaf labyrinth, pictorial instructions – recipe (link to EAD)	<u>Creating media – sounds and images</u> To know how to listen to audio stories/music – CD player/ipads To use a sound recorder Linked opportunities – Audio stories – CD player, Taking photos – iPad, Record voices – talking tins	<u>Programming A</u> To know how to use electronic toys To respond to simple cause and effect devices – push buttons etc To have an awareness of everyday devices that sense data – bar codes, metal detectors, automatic doors, thermometers Linked opportunities – Order and follow pictorial instructions – bird feeders (link to EAD), Coding Critters, torches, movement algorithms (adapt known songs/rhymes eg Heads, Shoulders)	<u>Managing Online</u> Information – Privacy and ownership (Project Evolve) To understand online safety Linked opportunities – Online – Smartie the penguin, Books Chicken clicking/Once upon a time online	To develop mouse control To use a paint programme To begin to use a keyboard to create text on screen – letters/numbers, name, space Linked opportunities – Paint programme on laptops, seed planting (follow verbal instructions and write their own)	<u>Programming B</u> To know people and computers follow instructions To program a simple floor robot (short sequence of steps) – coding critter Linked opportunities – Coding critters – design our maps (link to UTW),

Year 1						
	Autumn 1	**Autumn 2**	**Spring 1**	**Spring 2**	**Summer 1**	**Summer 2**
Year 1	Teach Computing Curriculum Unit: **Technology around us** ➢ **4 lessons** Software/hardware needed - https://paintz.app/ Lessons above also cover **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''). ● I can save my work under a suitable title / name so that others know it belongs to me (e.g. filename, name on content). ● I understand that work created by others does not belong to me even if I save a copy. Project Evolve (online safety) lessons: **Online Relationships** **3 lessons** ● I can give examples of when I should ask permission to do 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). ● I can explain why it is important to be considerate and kind to	Teach Computing Curriculum Unit: **Digital Painting** ➢ **6 lessons** Software/hardware needed - https://paintz.app/ Project Evolve (online safety) lessons: **Self-image and identity (in PSHE)** ● I can recognise that there may be people online who could make 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.	Teach Computing Curriculum Unit: **Moving a robot** ➢ **6 lessons** Software/hardware needed - Beebots	Project Evolve (online safety) lessons: **Managing online information (in Computing)** ● I can give simple examples of how to find information using 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. Project Evolve (online safety) lessons: **Privacy and ownership** ● I can explain that passwords are used to protect information, 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	Teach Computing Curriculum Unit: **Digital Writing** ➢ **6 lessons** Software/hardware needed - Google Docs/MS Word Health, well-being and lifestyle (in PSHE) ● I can explain rules to keep myself safe when using technology both in and beyond the home.	Teach Computing Curriculum Unit: **Programming animations** ➢ **6 lessons** Software/hardware needed - Scratch Jr

	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.			online, belonging to myself or others.		

Year 2						
	Autumn 1	**Autumn 2**	**Spring 1**	**Spring 2**	**Summer 1**	**Summer 2**
Year 2	Teach Computing Curriculum Unit: **Technology around us** ➢ **5 lessons** Software/hardware needed - Unplugged/Google Slide sorting activity *Combine lessons 1-4 into 3 lessons then lessons 5 and 6* NCCE lessons above also cover Health, well-being and life-style ● 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. Project Evolve (online safety) lessons: **Online Relationships** ➢ **2 lessons** ● I can describe different ways 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 something I am unsure about or don't want to do.	Teach Computing Curriculum Unit: **Digital Photography** ➢ **6 lessons** Software/hardware needed - https://pixlr.com/x/ Self-image and identity ➢ **1 lesson** *(after Digital Photography unit)* ● 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. Project Evolve (online safety) lessons: **Online Bullying (in PSHE)** ● 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 can get help.	Teach Computing Curriculum Unit: **Robot Algorithms** ➢ **6 lessons** Software/hardware needed - Beebots	Project Evolve (online safety) lessons: **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 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. **Privacy and security** ● 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).	Teach Computing Curriculum Unit: **Making Music** ➢ **6 lessons** Software/hardware needed - Chrome Music Lab https://musiclab.chromeexperiments.com/Song-Maker/ NCCE lessons above also cover 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. Project Evolve (online safety) lessons: **Online Reputation (in PSHE)** ● I can explain how information put online about someone can last for a long time. ● 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.	Teach Computing Curriculum Unit: **An introduction to Quizzes** ➢ **6 lessons** Software/hardware needed - Scratch Jr Project Evolve (online safety) lessons: **Online Relationships** ➢ **1 lesson (minimum) before beginning NCCE unit** ● I can give examples of how someone might use technology to 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. ● 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 'yes', 'agree' or 'accept' online.

Year 3

	Teach Computing Curriculum Unit: **Connecting computers** ➢ **4 lessons** *(combine 6 lessons into 4)* Software/hardware needed - Unplugged (online paint app e.g. paintz.app lesson 3) Project Evolve (online safety) lessons: **Online Relationships (in Computing)** **3 lessons** ● 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.	Teach Computing Curriculum Unit: **Stop-frame Animation** ➢ **6 lessons** Software/hardware needed – Tablets - iMotion app or https://www.j2e.com/jit5#animate NCCE lessons above also cover 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. Project Evolve (online safety) lessons: **Self Image and Identity (in PSHE)** ● 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. **Online Relationships (in PSHE)**	Teach Computing Curriculum Unit: **Branching databases** ➢ **6 lessons** Software/hardware needed - J2E https://www.j2e.com/jit5#branch Project Evolve (online safety) lessons: **Online Reputation (in PSHE)** ● 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. **Online Relationships (in PSHE)** ● I can explain why someone may change their mind about trusting anyone with something if they feel nervous, uncomfortable or worried. ● 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.	Project Evolve (online safety) lessons: **Managing online information (in Computing)** ● 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. ● 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, news 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. **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	Teach Computing Curriculum Unit: **Desktop publishing** ➢ **6 lessons** Software/hardware needed - Adobe Spark, Google Slides or Google Docs NCCE lessons above also cover 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. Project Evolve (online safety) lessons: **Health, Well-being and Lifestyle (in PSHE)** ● I can explain why spending too much time using technology can sometimes have a negative impact on anyone, e.g. mood, sleep, body, relationships; I can give some examples of both positive and negative activities where it is easy to spend a lot of time engaged (e.g. doing homework, games, films, videos). ● 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	Teach Computing Curriculum Unit: **Events and Actions in Programs** ➢ **6 lessons** Software/hardware needed - Scratch

		● I can explain how someone's feelings can be hurt by what is said or written online. **<u>Online Bullying (in PSHE)</u>** ● 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.		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.	makes me feel uncomfortable (e.g. age restricted gaming or web sites).	

Year 4

Year 4	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
	Teach Computing Curriculum Unit: **The Internet** ➢ **4 lessons (out of 6)** Software/hardware needed - Online services *Combine lessons 1&2 together, 3&4 together (depending on term length), then 5 and 6 as individual lessons* Project Evolve (online safety) lessons: **Online Reputation (in Computing)** ➢ **2 lessons** ● 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. Project Evolve (online safety) lessons: **Online Relationships (in PSHE)** ● I can describe strategies for safe and fun experiences in a range of online social environments (e.g.	Teach Computing Curriculum Unit: **Audio Production** ➢ **6 lessons** Software/hardware needed - Audacity Project Evolve (online safety) lessons: **Self-image and Identity (in Computing)** ➢ **1 lesson** *1st lesson of term 2 (before beginning NCCE unit. Link podcasts in Computing lessons to PSHE, friendships, online bullying etc)* ● 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. NCCE lessons above also cover 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. ● I can give some simple examples of content which I must not use without permission from the owner, e.g. videos, music, images.	Teach Computing Curriculum Unit: **Repetition in shapes** ➢ **6 lessons** Software/hardware needed - Scratch	Project Evolve (online safety) lessons: **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.	Teach Computing Curriculum Unit: **Photo Editing** ➢ **6 lessons** Software/hardware needed - Paint.net NCCE lessons above also cover 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. ● I can give some simple examples of content which I must not use without permission from the owner, e.g. videos, music, images. Project Evolve (online safety) lessons: **Self-image and Identity (in PSHE)** ● I can explain that others online can pretend to be someone else, including my friends, and can suggest reasons why they might do this. **Health, Well-being and Lifestyle (in PSHE)** ● 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.	Teach Computing Curriculum Unit: **Repetition in games** ➢ **6 lessons** Software/hardware needed - Scratch

	livestreaming, gaming platforms). ● I can give examples of how to be respectful to others online and describe how to recognise healthy and unhealthy online behaviours. I can explain how content shared online may feel unimportant to one person but may be important to other people's thoughts feelings and beliefs.	<u>Project Evolve (online safety) lessons:</u> **<u>Online Bullying (in PSHE)</u>** ● 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).			**<u>Privacy and security in PSHE</u>** ● 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.	

Year 5

Year 5	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
	An Introduction to Artificial Intelligence 5 lessons • I can explain what AI is. • I know some ways that AI can be useful. • I know some of the pros and cons of using AI. • I can create a chatbot. Project Evolve (online safety) lessons: **Online Reputation (in Computing)** ➢ **1 lesson** *Cover in week 7 of term after NCCE unit Sharing Information* ● 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 judgments about an individual and why these may be incorrect. NCCE lessons above also cover Copyright and ownership ● I can assess and justify when it is acceptable	Teach Computing Curriculum Unit: **Video Production** ➢ **6 lessons** Software/hardware needed - Recording device, Microsoft Movie Maker NCCE lessons in this Unit also cover themes of online reputation and online relationships Project Evolve (online safety) lessons: **Self-image and Identity (in Computing)** ➢ **1 lesson** *First lesson of term before NCCE Unit Video Production* ● I can explain how identity online can be copied, modified or altered. ● I can demonstrate how to make responsible choices about having an online identity, depending on context. Project Evolve (online safety) lessons: **Online Bullying (in PSHE)** ● 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	Teach Computing Curriculum Unit: **Selection in Physical Computing** ➢ **6 lessons** Software/hardware needed – Crumble kits	Project Evolve (online safety) lessons: **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 aim presented with e.g. voice-activated searching giving one result. ● 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. ● 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	Teach Computing Curriculum Unit: **Flat-file databases** ➢ **6 lessons** Software/hardware needed - J2E http://www.j2e.com/help/videos/datags4 *IF MORE THAN 6 WEEKS IN TERM CONTINUE TO COVER THEMES FROM PREVIOUS TERM ON MANAGING ONLINE INFORMATION AND PRIVACY AND SECURITY IN COMPUTING LESSONS* Project Evolve (online safety) lessons: **Health, Well-being and Lifestyle (in PSHE)** ● I can describe ways technology can affect health and well-being 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 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**, **lootboxes**) and explain the importance of seeking permission from a trusted adult before purchasing.	Teach Computing Curriculum Unit: **Selection in Quizzes** ➢ **6 lessons** Software/hardware needed - Scratch *ALSO CONTINUE TO COVER/REVISIT THEMES ON MANAGING ONLINE INFORMATION AND PRIVACY AND SECURITY WHERE TIME ALLOWS IN COMPUTING LESSONS*

	to use the work of others. ● I can give examples of content that is permitted to be reused and know how this content can be found online. <u>Project Evolve (online safety) lessons:</u> **<u>Online Relationships (in PSHE)</u>** link to Health and Well-being ● I can explain that there are some people I communicate with online who may want to do me or my friends harm. I can recognise 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 problems and identify when to tell a trusted adult. ● I can demonstrate how to support others (including those who are having difficulties) online.	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. **COVERED IN KEY STAGE 2 ASSEMBLIES with follow up activity in classes.** I can describe the **helpline services** which can help people experiencing bullying, and how to access them (e.g. Childline or The Mix).		'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. **<u>Privacy and security</u>** ● 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.		

Year 6						
Year 6	**Autumn 1**	**Autumn 2**	**Spring 1**	**Spring 2**	**Summer 1**	**Summer 2**
	Teach Computing Curriculum Unit: **Internet Communication** ➢ **6 lessons** Software/hardware needed - Online websites Project Evolve (online safety) lessons: **Online Reputation** ➢ **1 lesson** Use Project Evolve materials at the end of Internet Communication Unit ● 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 degrees of **anonymity**.	Teach Computing Curriculum Unit: **Webpage Creation** ➢ **6 lessons** Software/hardware needed - Google Sites Project Evolve (online safety) lessons: **Self-image and Identity** * Use Project Evolve material alongside **Lesson 2** of NCCE unit Webpage creation ● 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. NCCE lessons above also cover 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.	Teach Computing Curriculum Unit: **Variables in games** ➢ **6 lessons** Software/hardware needed - Scratch Project Evolve (online safety) lessons: **Online Relationships** ➢ **1 lesson** 1st lesson of term before NCCE Unit Variables in Games ● 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. ● I can describe how things shared privately online can have unintended	Project Evolve (online safety) lessons: **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 those promoting it does not necessarily make it true, fair or perhaps even legal. ● 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 influences peoples' choices. ● I can demonstrate how to analyse and evaluate the validity of 'facts' and information and I can explain	Teach Computing Curriculum Unit: **Introduction to spreadsheets** ➢ **6 lessons** Software/hardware needed - Google Sheets or Excel *IF MORE THAN 6 WEEKS IN TERM CONTINUE TO COVER THEMES FROM PREVIOUS TERM ON MANAGING ONLINE INFORMATION AND PRIVACY AND SECURITY IN COMPUTING LESSONS* Project Evolve (online safety) lessons: **Online Relationships (in PSHE)** ● 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. **Health, Well-being and Lifestyle** **COVERED IN UPPER KEY STAGE 2 ASSEMBLIES with follow up activity in classes.** ● I can recognise features of **persuasive design** and how they are used to keep users engaged (current and future use).	Teach Computing Curriculum Unit: **Sensing** ➢ **6 lessons** Software/hardware needed - Micro-bit kits or simulator https://makecode.microbit.org/) *ALSO CONTINUE TO COVER/REVISIT THEMES ON MANAGING ONLINE INFORMATION AND PRIVACY AND SECURITY WHERE TIME ALLOWS IN COMPUTING LESSONS* **Health, Well-being and Lifestyle** **COVERED IN KEY STAGE 2 ASSEMBLIES with follow up activity in classes.** 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).

		Project Evolve (online safety) lessons: **Self-image and Identity (in PSHE)** *Link with Online Bullying below* ● 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. Project Evolve (online safety) lessons: **Online Bullying (in PSHE)** ● I can describe how to capture bullying content as evidence (e.g **screen-grab**, **URL**, **profile**) to share with others who can help me. ● I can explain how someone would report online bullying in different contexts. **Health, Well-being and Lifestyle** **COVERED IN KEY STAGE 2 ASSEMBLIES with follow up activity in classes.** ● I recognise and can discuss the pressures that technology can place on someone and how / when they could manage this.	consequences for others. e.g. **screen-grabs**. Some statements also covered in Term 2 NCCE Unit Webpage Creation **COVERED IN KEY STAGE 2 ASSEMBLIES with follow up activity in classes (link in with Safer Internet Day?)** ● I can describe common systems that regulate age-related content (e.g. **PEGI**, **BBFC**, parental warnings) and describe their purpose.	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. ● I can describe the difference between on-line **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). ● I can identify, flag and report inappropriate content. **Privacy and security** ● I can describe effective ways people can manage passwords (e.g. storing them securely or saving them in the 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 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.		

Progression

Progression through the taxonomy

Within the Teach Computing Curriculum, every year group learns through units within the same four themes, which combine the ten strands of the National Centre for Computing Education's taxonomy (see table, right). All learning objectives have been mapped to the strands, which ensures that units build on each other from one key stage to the next.

Teaching order

The order in which to teach units within a school year is not prescribed, other than for the two 'Programming' units for each year group, which build on each other. It is recommended that the 'Programming' and 'Creating media' units be revisited in two different terms within the school year, so that the concepts and skills can be revisited and consolidated. Otherwise, schools can choose the order in which they teach the units, based on the needs of their pupils and other topics or events that are happening throughout the school year, to make use of cross-curricular links wherever possible.

Primary themes	Computing systems and networks	Programming	Data and information	Creating media
Taxonomy strands	Computer systems Computer networks	Programming Algorithms Design and development	Data and information	Creating media Design and development
	Effective use of tools			
	Impact of technology			
	Safety and security			

Digital Literacy

All of the Teach Computing content is mapped to the ten-strand taxonomy, which covers the breadth of computing (see progression through the taxonomy). Within these strands, key elements of digital literacy have been identified, such as effective use of tools, impact of technology and safety and security. These strands are woven throughout the four key themes, with skills and knowledge applied across the teach computing curriculum.

Progression throughout the four themes

With the curriculum organised into four key themes, a spiral approach can be adopted (see 'Spiral curriculum' section for more information). This ensures skills and concepts progress from one year group to the next.

Computer Systems and Networks

The Computer Systems and Networks strand is taught once a year, building progressively from one year group to the next, with subject specific knowledge introduced at age-appropriate points.

Computer Systems and Networks	
1	Technology around us
2	IT around us
3	Connecting Computers
4	The Internet
5	Systems and Searching
6	Communication and Collaboration

Data and Information

The Data and Information strand is again taught once a year, progressing in both skills and software. Key Stage 1 uses simplified age-appropriate software platforms, progressing to more industry focused software in upper Key Stage 2.

Data and Information	
1	Grouping data
2	Pictograms
3	Branching databases
4	Data logging
5	Flat file databases
6	Introduction to spreadsheets

Programming

The Programming stand is taught twice a year, with the same concept revisited and covered in more depth. The following year incorporates the previous skills, whilst progressing onto a new concept.

Programming		
1	Moving a Robot	Programming animations
2	Robot algorithms	Programming quizzes
3	Sequencing sounds	Events and actions in programs
4	Repetition in shapes	Repetition in games
5	Selection in physical computing	Selection in quizzes
6	Variables in games	Sensing movement

Creating Media

The Creating Media strand hosts a wide range of different media types, and therefore different skills. To support progression, this can be best categorised into four different key areas: text, graphics (the use of pictures and text), photo and video, and audio. The spiral curriculum covers each of these four areas over a phase (KS1, LKS2 and UKS2), rather than in every year group, with links across these areas made where possible.

Creating Media				
	Text	Graphics	Photo and Video	Audio
1	Digital writing	Digital painting		
2			Digital photography	Digital music
3	Desktop publishing	Stop frame animation		
4		Photo editing		Audio production
5		Introduction to vector graphics	Video production	
6	Web page creation	3D modelling		

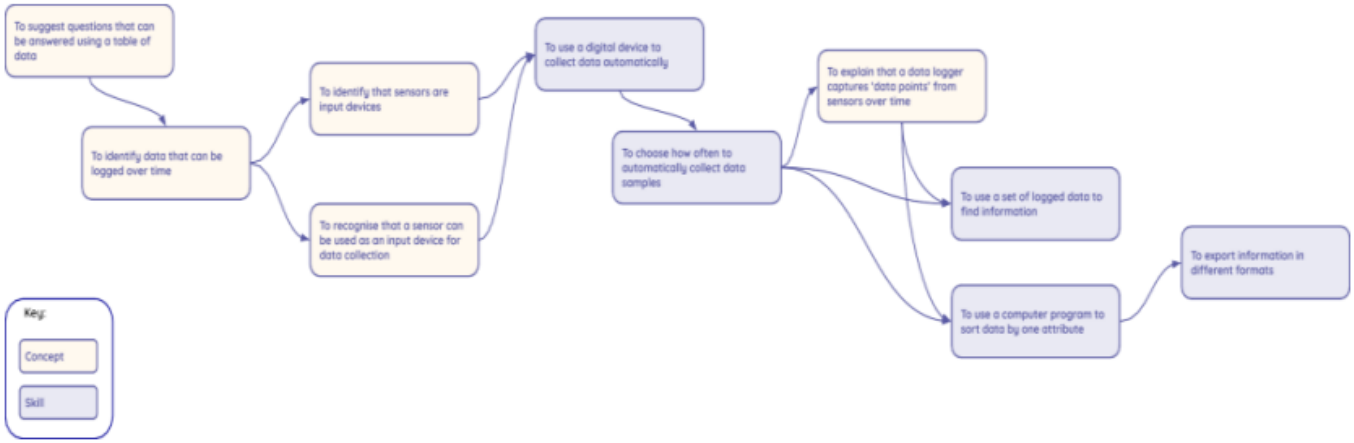
Progression within a unit – learning graphs

Learning graphs are provided as part of each unit and demonstrate progression through concepts and skills. In order to learn some of those concepts and skills, pupils need prior knowledge of others, so the learning graphs show which concepts and skills need to be taught first and which could be taught at a different time.

The learning graphs often show more statements than there are learning objectives. All of the skills and concepts learnt are included in the learning graphs. Some of these skills and concepts are milestones, which form learning objectives, while others are smaller steps towards these milestones, which form success criteria. Please note that the wording of the statements may be different in the learning graphs than in the lessons, as the learning graphs are designed for teachers, whereas the learning objectives and success criteria are age-appropriate so that they can be understood by pupils.

KS2 example learning graph

Year 4 - Data and Information – Data logging



In each year group, there are two 'Programming' units of work, but only one 'Programming' learning graph. The second 'Programming' unit builds on the content that was taught in the first 'Programming' unit so closely that there is no specific divide where one ends and the other begins.