



Computing



At Layfield Primary School, we recognise the importance of Computing and its importance in an ever-changing technological world. We want all pupils to develop a love for computing and strive to reach their full potential with the vast array of technology available to them.

We strive to develop technological curiosity and provide pupils with fun, inspiring computing links within our curriculum. Memorable experiences through visits, and visitors, aim to provide pupils with opportunities to learn important life skills such as E-Safety.

Throughout the computing curriculum, pupils are challenged to develop as an individual, to overcome problems, discover new skills and strive to be empowered by technology.

Our Computing curriculum is designed to provide a coherent and progressive development of knowledge, skills and understanding.

We want our pupils to:

Love learning about computer science, information technology and digital literacy

Achieve new skills, knowledge of understanding within the technological world

Develop curiosity to know more about computing

Have fun by working with a wide range of resources to support the computing curriculum

Be inspired to consider stem careers in the future

Have memorable experiences through whole school focus days

Learn to use technology safely, respectfully and responsibly

Develop their skills and become competent users of a wide range of technology

The Computing curriculum is comprised of three strands: Computer Science, Information Technology, and Digital Literacy. These strands come together to teach children how computers and computer systems work, how to design, build and analyse programs, and how to find and manage digital information securely in an ever-changing online world.

At Layfield the computing curriculum is primarily planned and delivered through the Purple Mash curriculum. Edited into the curriculum plan, programming units from the DFE funded teach computing curriculum have also been planned in. This ensures pupils are provided with a wide interface of coding challenges throughout the curriculum, and the opportunity to apply known skills in various contexts. This decision has also been made to aid pupils progress in programming post covid-19 restrictions. This edit was discussed and suggested with support from our local computing hub <https://www.gov.uk/guidance/get-support-from-your-local-computing-hub>

Finally, to further supplement the digital literacy element of the curriculum, Layfield also use resources from Project Evolve. This site provided current, up to date content to further support pupils knowledge of keeping safe online. Each half term the whole school focus will be:

Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Self-Image and Identity	Online Relationships	Online Reputation Online Bullying	Managing Online Information	Health, Well-being and Lifestyle	Privacy and Security Copyright and Ownership

Below is the progression of Digital Literacy statements that will be covered at Layfield over the academic year.

Layfield Project Evolve Progression Grid 2022-2023

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
	Self-Image and Identity	Online Relationships	Online Reputation Online Bullying	Managing Online Information	Health, Well-being, and Lifestyle	Privacy and Security Copyright and Ownership
Nursery/ Reception	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.	I can recognise some ways in which the internet can be used to communicate.	I can identify ways that I can put information on the internet. I can describe ways that some people can be unkind online.	I can identify devices I could use to access information on the internet.	I can talk about how to use the internet as a way of finding information online.	I can identify some simple examples of my personal information (e.g. name, address, birthday, age, location). I know that work I create belongs to me.
Year 1	If something happens that makes me feel sad, worried, uncomfortable, or frightened I can give examples of when and how to	I can give examples of when I should ask permission to do something online and explain why this is important.	I can recognise that information can stay online and could be copied.	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 can explain rules to keep myself safe when using technology both in and beyond the home.	I can explain how passwords are used to protect information, accounts and devices.

	<p>speak to an adult I can trust and how they can help.</p>		<p>I can describe how to behave online in ways that do not upset others and can give examples.</p>			<p>I can save my work under a suitable title or name so that others know it belongs to me (e.g. filename, name on content).</p>
Year 2	<p>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.</p>	<p>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).</p>	<p>I can explain how information put online about someone can last for a long time.</p> <p>I can explain what bullying is, how people may bully others and how bullying can make someone feel.</p>	<p>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).</p>	<p>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.</p>	<p>I can describe and explain some rules for keeping personal information private (e.g. creating and protecting passwords).</p> <p>I can recognise that content on the internet may belong to other people.</p>
Year 3	<p>I can explain how people can represent themselves in different ways online</p>	<p>I can explain what it means to 'know someone' online and why this might be different from knowing someone offline.</p>	<p>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.</p> <p>I can give examples of how bullying behaviour could appear online and how someone can get support.</p>	<p>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.</p>	<p>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.</p>	<p>I can describe simple strategies for creating and keeping passwords private.</p> <p>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.</p>
Year 4	<p>I can describe positive ways for someone to interact with others online and understand how this will positively impact on how others perceive them.</p>	<p>I can describe strategies for safe and fun experiences in a range of online social environments (e.g. livestreaming, gaming platforms)</p>	<p>I can explain ways that some of the information about anyone online could have been created, copied or shared by others.</p> <p>I can describe ways people can be bullied through a range of media (e.g. image, video, text, chat).</p>	<p>I can explain why lots of people sharing the same opinions or beliefs online do not make those opinions or beliefs true.</p>	<p>I can explain how using technology can be a distraction from other things, in both a positive and negative way.</p>	<p>I can explain that internet use is never fully private and is monitored, e.g. adult supervision.</p> <p>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.</p>
Year 5	<p>I can explain how identity online can be copied, modified or altered.</p>	<p>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.</p>	<p>I can search for information about an individual online and summarise the information found.</p> <p>I can describe how what one person perceives as playful joking and teasing (including 'banter') might be experienced by others as bullying.</p>	<p>I can describe how fake news may affect someone's emotions and behaviour, and explain why this may be harmful.</p>	<p>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.</p>	<p>I can explain what a strong password is and demonstrate how to create one.</p> <p>I can assess and justify when it is acceptable to use the work of others</p>
Year 6	<p>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.</p>	<p>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.</p>	<p>I can explain the ways in which anyone can develop a positive online reputation.</p> <p>I can describe how to capture bullying content as evidence (e.g. screen-grab, URL, profile) to share with others who can help me.</p>	<p>I can describe the difference between online misinformation and dis-information</p>	<p>I recognise and can discuss the pressures that technology can place on someone and how / when they could manage this.</p>	<p>I can describe simple ways to increase privacy on apps and services that provide privacy settings.</p> <p>I can demonstrate the use of search tools to find and access online content which can be reused by others.</p>

Within the computing curriculum, the units of work are well sequenced to provide a coherent subject scheme that develops children's skills. Key aspects and concepts, such as computer science, information technology and digital literacy are repeated in each year group. Where there are opportunities for making meaningful connections with other subjects, units are sequenced accordingly. Where gaps have been identified, appropriate 'focus days' are planned, implemented and assessed to ensure the National Curriculum requirements have been adequately covered, for example E-safety Week.

Early Learning Goals	National Curriculum	
EY	KS1	KS2
<p>None, however Birth to Five Matters states that:</p> <p>Children require access to a range of technologies, both digital and non-digital in their early lives.</p> <p>Exploring with different technologies through play provides opportunities to develop skills that children will go on to develop in their lifetimes. Investigations, scientific inquiry and exploration are essential components of learning about and with technology both digitally and in the natural world. Through technology children have additional opportunities to learn across all areas in both formal and informal ways.</p> <p>Technologies should be seen as tools to learn both from and with, in order to integrate technology effectively within early years practice.</p>	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> ● understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions ● create and debug simple programs ● use logical reasoning to predict the behaviour of simple programs ● use technology purposefully to create, organise, store, manipulate and retrieve digital content ● recognise common uses of information technology beyond school ● use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies. 	<p>Pupils should be taught to:</p> <ul style="list-style-type: none"> ● design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts ● use sequence, selection, and repetition in programs; work with variables and various forms of input and output ● use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs ● understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration ● use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content ● select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information ● use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.

Computing falls under the 'Understanding the World - Technology' area of learning and development.

The curriculum is taught through topics which are enriched with classroom enhancements, staff interactions, visits, and visitors. Topics are supported by quality resources which are used across the curriculum. These are chosen carefully to encourage children to develop basic skills, develop an interest in and operate digital devices. Planning is flexible and responsive to children's needs and can be changed and adapted dependent on children's interests.

As children are taught the differing topics, they begin to build up their knowledge and skills at an appropriate age-related level. In Early Years we are in a unique and wonderful position to be able to follow the children's interests and fascinations which allows us the opportunity to develop the children's historical thinking and really embed learning in a way that is fun and memorable.

Early Years Long Term Topic Plan			
Term	2021/2022	2022/2023	2023/2024
Autumn 1	<p>Technology around us</p> <p>https://www.ilearn2.co.uk/computerdiscoveveryfree.html</p> <p>http://code-it.co.uk/wp-content/uploads/2015/05/bankplan.pdf</p> <p>http://code-it.co.uk/wp-content/uploads/2015/05/supermarketplan.pdf</p> <p>http://www.crickweb.co.uk/Early-Years.html</p> <p>https://www.nurseryworld.co.uk/News/article/ict-in-role-play-check-it-out</p> <p>Digital literacy resources: https://projectevolve.co.uk/toolkit/resources/years/early-years-7/</p>	<p>Technology around us</p> <p>https://www.ilearn2.co.uk/computerdiscoveveryfree.html</p> <p>http://code-it.co.uk/wp-content/uploads/2015/05/bankplan.pdf</p> <p>http://code-it.co.uk/wp-content/uploads/2015/05/supermarketplan.pdf</p> <p>http://www.crickweb.co.uk/Early-Years.html</p> <p>https://www.nurseryworld.co.uk/News/article/ict-in-role-play-check-it-out</p> <p>Digital literacy resources: https://projectevolve.co.uk/toolkit/resources/years/early-years-7/</p>	<p>Technology around us</p> <p>https://www.ilearn2.co.uk/computerdiscoveveryfree.html</p> <p>http://code-it.co.uk/wp-content/uploads/2015/05/bankplan.pdf</p> <p>http://code-it.co.uk/wp-content/uploads/2015/05/supermarketplan.pdf</p> <p>http://www.crickweb.co.uk/Early-Years.html</p> <p>https://www.nurseryworld.co.uk/News/article/ict-in-role-play-check-it-out</p> <p>Digital literacy resources: https://projectevolve.co.uk/toolkit/resources/years/early-years-7/</p>

<p style="text-align: center;">Autumn 2</p>	<p>Codeapillar..</p> <p>https://www.somerset.org.uk/sites/edtech/Primary%20Computing/NWP%20free%20samples/Y1%20Programming%206%20Core%20Codapillar.pdf</p> <p>Digital literacy resources: https://projectevolve.co.uk/toolkit/resources/years/early-years-7/</p>	<p>Codeapillar..</p> <p>https://www.somerset.org.uk/sites/edtech/Primary%20Computing/NWP%20free%20samples/Y1%20Programming%206%20Core%20Codapillar.pdf</p> <p>Digital literacy resources: https://projectevolve.co.uk/toolkit/resources/years/early-years-7/</p>	<p>Codeapillar..</p> <p>https://www.somerset.org.uk/sites/edtech/Primary%20Computing/NWP%20free%20samples/Y1%20Programming%206%20Core%20Codapillar.pdf</p> <p>Digital literacy resources: https://projectevolve.co.uk/toolkit/resources/years/early-years-7/</p>
<p style="text-align: center;">Spring 1</p>	<p>Music creation</p> <p>https://www.ilearn2.co.uk/freeyear1musiccreation.html</p> <p>Digital literacy resources: https://projectevolve.co.uk/toolkit/resources/years/early-years-7/</p>	<p>Music creation</p> <p>https://www.ilearn2.co.uk/freeyear1musiccreation.html</p> <p>Digital literacy resources: https://projectevolve.co.uk/toolkit/resources/years/early-years-7/</p>	<p>Music creation</p> <p>https://www.ilearn2.co.uk/freeyear1musiccreation.html</p> <p>Digital literacy resources: https://projectevolve.co.uk/toolkit/resources/years/early-years-7/</p>
<p style="text-align: center;">Spring 2</p>	<p>Barefoot Computing -</p> <p>Jam sandwich http://swaygrantham.co.uk/wp-content/uploads/2016/09/JamSandwichAlgorithm.pdf</p> <p>https://www.barefootcomputing.org/docs/default-source/at-home/pizza_party_activity.pdf?sfvrsn=154d91ea_2</p> <p>Digital literacy resources: https://projectevolve.co.uk/toolkit/resources/years/early-years-7/</p>	<p>Barefoot Computing -</p> <p>Jam sandwich http://swaygrantham.co.uk/wp-content/uploads/2016/09/JamSandwichAlgorithm.pdf</p> <p>https://www.barefootcomputing.org/docs/default-source/at-home/pizza_party_activity.pdf?sfvrsn=154d91ea_2</p> <p>Digital literacy resources: https://projectevolve.co.uk/toolkit/resources/years/early-years-7/</p>	<p>Barefoot Computing -</p> <p>Jam sandwich http://swaygrantham.co.uk/wp-content/uploads/2016/09/JamSandwichAlgorithm.pdf</p> <p>https://www.barefootcomputing.org/docs/default-source/at-home/pizza_party_activity.pdf?sfvrsn=154d91ea_2</p> <p>Digital literacy resources: https://projectevolve.co.uk/toolkit/resources/years/early-years-7/</p>

<p style="text-align: center;">Summer 1</p>	<p>Tux paint</p> <p>https://www.j2e.com/jit5</p> <p>tuxpaint.org</p> <p>Digital literacy resources: https://projectevolve.co.uk/toolkit/resources/years/early-years-7/</p>	<p>Tux paint</p> <p>https://www.j2e.com/jit5</p> <p>tuxpaint.org</p> <p>Digital literacy resources: https://projectevolve.co.uk/toolkit/resources/years/early-years-7/</p>	<p>Tux paint</p> <p>https://www.j2e.com/jit5</p> <p>tuxpaint.org</p> <p>Digital literacy resources: https://projectevolve.co.uk/toolkit/resources/years/early-years-7/</p>
<p style="text-align: center;">Summer 2</p>	<p>Barefoot Computing</p> <p>Lego Building</p> <p>Crazy Characters</p> <p>Head, Shoulder, Knees and Toes</p> <p>Boats Ahoy</p> <p>Busy Bodies</p> <p>Digital literacy resources: https://projectevolve.co.uk/toolkit/resources/years/early-years-7/</p>	<p>Barefoot Computing</p> <p>Lego Building</p> <p>Crazy Characters</p> <p>Head, Shoulder, Knees and Toes</p> <p>Boats Ahoy</p> <p>Busy Bodies</p> <p>Digital literacy resources: https://projectevolve.co.uk/toolkit/resources/years/early-years-7/</p>	<p>Barefoot Computing</p> <p>Lego Building</p> <p>Crazy Characters</p> <p>Head, Shoulder, Knees and Toes</p> <p>Boats Ahoy</p> <p>Busy Bodies</p> <p>Digital literacy resources: https://projectevolve.co.uk/toolkit/resources/years/early-years-7/</p>

Key stage 1 and Key stage 2 curriculum

Key Stage 1	NC Objectives https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/239033/PRIMARY_national_curriculum_-_Computing.pdf
	<p>Pupils should be taught to:</p> <ul style="list-style-type: none">• understand what algorithms are, how they are implemented as programs on digital devices, and that programs execute by following precise and unambiguous instruction• create and debug simple programs• use logical reasoning to predict the behaviour of simple program• use technology purposefully to create, organise, store, manipulate and retrieve digital content• recognise common uses of information technology beyond school• use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.

Key:

Purple = Purple Mash Curriculum

Yellow = Project Evolve Curriculum Planning

Green = Curriculum Alteration (Teach Computing - Programming)

<p>KEY</p> <p>Purple = purple mash unit of learning</p> <p>Green = Teach Computing Unit of learning</p> <p>Yellow = Project Evolve Planning</p>	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
<p>Year 1</p>	<p>Year 1</p> <p>Digital Literacy</p> <p>Unit 1.1 Online Safety & Exploring Purple Mash Weeks – 4</p> <p>Computer Science</p> <p>Unit 1.2 Grouping & Sorting Weeks – 1 lesson (Sorting on the Computer) Programs – 2DIY</p> <p>1 x week Digital Literacy using project evolve resources</p>	<p>Year 1</p> <p>Computer Science</p> <p>Programming- Physical</p> <p>Moving a robot Introduces early programming concepts using floor robots. Short algorithms and programs.</p> <p>https://teachcomputing.org/curriculum/key-stage-1/programming-a-moving-a-robot</p> <p>App Beebot</p>	<p>Year 1</p> <p>Computer Science</p> <p>Unit 1.5 Maze Explorers Weeks – 3 Programs – 2Go</p> <p>1 x week Digital Literacy using project evolve resources (E-SAFETY)</p> <p>Online Reputation</p> <p>1 x week Digital Literacy using project evolve resources (E-SAFETY)</p> <p>Online Bullying</p>	<p>Year 1</p> <p>Information Technology</p> <p>Unit 1.6 Animated Story Books Weeks – 5 Programs – 2Create A Story</p> <p>1 x week Digital Literacy using project evolve resources (E-SAFETY)</p> <p>Managing Online Information</p>	<p>Year 1</p> <p>Computer Science</p> <p>Unit 1.7 Coding Weeks – 4 Programs – 2Code</p> <p>Unplugged Coding https://www.barefootcomputing.org/resources/dance-move-algorithms</p> <p>1 x week Digital Literacy using project evolve resources (E-SAFETY)</p> <p>Health, Well-being and Lifestyle</p>	<p>Year 1</p> <p>Information Technology</p> <p>Unit 1.8 Spreadsheets Weeks – 2 Programs – 2Calculate</p> <p>Unit 1.9 Technology outside school Weeks – 2 Programs – Various</p> <p>1 x week Digital Literacy using project evolve resources (E-SAFETY)</p> <p>Privacy and Security</p>

	(E-SAFETY) Self-Image and Identity	1 x week Digital Literacy using project evolve resources (E-SAFETY) Online Relationships				1 x week Digital Literacy using project evolve resources (E-SAFETY) Copyright and Ownership
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(Digital Literacy) E-safety Year 1
[https://digital-literacy.org.uk/curriculum-overview/fs-year1/fs-year1-sol-\(1\).aspx/](https://digital-literacy.org.uk/curriculum-overview/fs-year1/fs-year1-sol-(1).aspx/) and <https://projectevolve.co.uk/toolkit/years/year-one/> Teach 1 objective from each strand over the year (1 per half term)

<h1>Year 2</h1>	Year 2	Year 2	Year 2	Year 2	Year 2	Year 2
	<p style="text-align: center;">Digital Literacy</p> <p>Unit 2.2 Online Safety Weeks – 3 Programs – Various</p> <p>2 x week Digital Literacy using project evolve resources (E-SAFETY) Self-Image and Identity</p>	<p style="text-align: center;">Computer Science</p> <p>Programming</p> <p>Robot algorithms Uses floor robots to develop logical reasoning, prediction and debugging</p> <p>https://teachcomputing.org/curriculum/key-stage-1/programming-a-robot-algorithms</p> <p>App needed - A.L.E.X</p> <p>1 x week Digital Literacy using project evolve resources (E-SAFETY) Online Relationships</p>	<p style="text-align: center;">Information Technology</p> <p>Unit 2.3 Spreadsheets Weeks – 3 Programs – 2Calculate</p> <p>Digital Literacy</p> <p>Unit 2.5 Effective Searching Weeks – 2 Programs – Browser</p> <p>2 x week Digital Literacy using project evolve resources (E-SAFETY) Online Reputation Online Bullying</p>	<p style="text-align: center;">Information Technology</p> <p>Unit 2.6 Creating Pictures Weeks – 4 Programs – 2PaintAPicture</p> <p>2 x week Digital Literacy using project evolve resources (E-SAFETY) Managing Online Information</p>	<p style="text-align: center;">Computer Science</p> <p>Programming- Scratch Jr</p> <p>Introduction to Animation This unit introduces learners to on screen programming through ScratchJr.</p> <p>https://teachcomputing.org/curriculum/key-stage-1/programming-b-introduction-to-animation</p> <p>Scratch Jr Barefoot Computing Tinkering in Scratch Jr https://www.barefootcomputing.org/resources/scratchjr-tinkering-activity</p> <p>Scratch Jr Knock Knock https://www.barefootcomputing.org/resources/scratchjr-knock-knock-joke-activity</p> <p>Scratch Jr twinkl planning</p>	<p style="text-align: center;">Information Technology</p> <p>Unit 2.7 Making Music Weeks - 3</p> <p>2 x week Digital Literacy using project evolve resources (E-SAFETY) Privacy and Security Copyright and Ownership</p>

					1 x week Digital Literacy using project evolve resources (E-SAFETY) Health, Well-being and Lifestyle	
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(Digital Literacy) E-safety Year 2

[https://digital-literacy.org.uk/curriculum-overview/year2/year-2-sol-\(1\).aspx/](https://digital-literacy.org.uk/curriculum-overview/year2/year-2-sol-(1).aspx/) and <https://projectevolve.co.uk/toolkit/years/year-two/>

Teach 1 objective from each strand over the year (1 per half term)

Key Stage 2	NC Objectives https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/239033/PRIMARY_national_curriculum_-_Computing.pdf
	<p>Pupils should be taught to:</p> <ul style="list-style-type: none">• 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 out• use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs• understand computer networks, including the internet; how they can provide multiple services, such as the World Wide Web, and the opportunities they offer for communication and collaboration• use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content• select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information• use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact

<p>KEY</p> <p>Purple = purple mash unit of learning</p> <p>Green = Teach Computing Unit of learning</p> <p>Yellow = Project Evolve Planning</p>	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
<p>Year 3</p> <p>3</p>	<p>Year 3</p> <p>Digital Literacy</p> <p>Unit 3.2 Online safety Weeks – 2 Programs – Various</p> <p>Information Technology</p> <p>Unit 3.3 Spreadsheets Weeks – 3 Programs – 2 Calculate</p> <p>1 x week Digital Literacy using project evolve resources (E-SAFETY)</p>	<p>Year 3</p> <p>Computer Science</p> <p>Programming - Sequencing This will be the first time using scratch for many pupils in Year 3.</p> <p>Begin with Scratch Tutorials https://scratch.mit.edu/projects/editor/?tutorial=getStarted</p> <p>Focus on tasks within this link for the half term. https://csfirst.withgoogle.com/c/cs-first/en/animate-</p>	<p>Year 3</p> <p>Information Technology</p> <p>Unit 3.4 Touch Typing Weeks – 4 Programs – 2 Type Adapt to use with an ipad</p> <p>2 x week Digital Literacy using project evolve resources (E-SAFETY)</p> <p>Online Reputation Online Bullying</p>	<p>Year 3</p> <p>Computer Science</p> <p>Programming- Sequencing</p> <p>Scratch and Music - complete the 6 lessons linked below This unit explores the concept of sequencing in programming through Scratch. It begins with an introduction to the programming environment, which will be new to most learners. They will be</p>	<p>Year 3</p> <p>Information Technology</p> <p>Unit 3.6 Branching Databases Weeks – 4 Programs – 2 Question</p> <p>1 x week Digital Literacy using project evolve resources (E-SAFETY)</p> <p>Health, Well-being and Lifestyle</p>	<p>Year 3</p> <p>Computer Science</p> <p>Programming - Events</p> <p>Events and actions – complete the 6 lessons linked below https://teachcomputing.org/curriculum/key-stage-2/programming-b-events-and-actions This unit explores the links between events and actions, whilst consolidating prior learning relating to sequencing. Learners</p>

	<p>Self-Image and Identity</p>	<p>a-name/animate-a-name/animate-a-name.html</p> <p>If pupils are ready, try project 1-3 below at the end of half term's learning https://projects.raspberrypi.org/en/codeclub/scratch-module-1</p> <p>1 x week Digital Literacy using project evolve resources (E-SAFETY)</p> <p>Online Relationships</p>		<p>introduced to a selection of motion, sound, and event blocks which they will use to create their own programs, featuring sequences. The final project is to make a representation of a piano. The unit is paced to focus on all aspects of sequences, and make sure that knowledge is built in a structured manner. Learners also apply stages of program design through this unit. https://teachcomputing.org/curriculum/key-stage-2/programming-a-sequence-in-music</p> <p>1 x week Digital Literacy using project evolve resources (E-SAFETY)</p> <p>Managing Online Information</p>		<p>will begin by moving a sprite in four directions (up, down, left and right). They will then explore movement within the context of a maze, using design to choose an appropriately sized sprite. This unit also introduces programming extensions, through the use of pen blocks. Learners are given the opportunity to draw lines with sprites and change the size and colour of lines. The unit concludes with learners designing and coding their own maze tracing program.</p> <p>Additional learning links</p> <p>https://studio.code.org/s/coursec-2020/stage/15/puzzle/1</p> <p>2 x week Digital Literacy using project evolve resources (E-SAFETY)</p> <p>Privacy and Security</p>
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(Digital Literacy) E-safety Year 3

[https://digital-literacy.org.uk/curriculum-overview/year3/year-3-sol-\(1\).aspx/](https://digital-literacy.org.uk/curriculum-overview/year3/year-3-sol-(1).aspx/) and <https://projectevolve.co.uk/toolkit/years/year-three/>

Teach 1 objective from each strand over the year (1 per half term)

Year 4	Year 4	Year 4	Year 4	Year 4	Year 4	Year 4
	<p>Digital Literacy</p> <p>Unit 4.2 Online safety Weeks – 4 Programs – Various</p> <p>1 x week Digital Literacy using project evolve resources (E-SAFETY) Self-Image and Identity</p>	<p>Computer Science</p> <p>Unit included to consolidate learning further from Year 3. This will help prepare pupils to make progress in coding units later in the year. Staff member to identify GAPS and address.</p> <p>Programming- Scratch-events Events and actions (Y3) https://teachcomputing.org/curriculum/key-stage-2/programming-b-events-and-actions https://studio.code.org/s/coursec-2020/stage/15/puzzle/1</p> <p>1 x week Digital Literacy using project evolve resources (E-SAFETY) Online Relationships</p>	<p>Information Technology</p> <p>Unit 5.3 Spreadsheets Weeks – 5 Programs – 2Calculate</p> <p>2 x week Digital Literacy using project evolve resources (E-SAFETY) Online Reputation Online Bullying</p>	<p>Computer Science</p> <p>Programming- Logo- repetition Programming A – Repetition in shapes https://teachcomputing.org/curriculum/key-stage-2/programming-a-repetition-in-shapes</p> <p>This unit is the first of the two programming units in Year 4 and looks at repetition and loops within programming. Pupils will create programs by planning, modifying, and testing commands to create shapes and patterns. They will use Logo, a text-based programming language.</p> <p>1 x week Digital Literacy using project evolve resources (E-SAFETY) Managing Online Information</p>	<p>Information Technology</p> <p>Unit 5.5 Game Creator Weeks – 4 Programs – 2DIY 3D</p> <p>1 x week Digital Literacy using project evolve resources (E-SAFETY) Health, Well-being and Lifestyle</p>	<p>Computer Science</p> <p>Programming- Scratch- repetition</p> <p>Programming B – Repetition in games https://teachcomputing.org/curriculum/key-stage-2/programming-b-repetition-in-games</p> <p>This unit explores the concept of repetition in programming using the Scratch environment. It begins with a Scratch activity similar to that carried out in Logo in Programming unit A, where learners can discover similarities between two environments. Learners look at the difference between count-controlled and infinite loops, and use their knowledge to modify existing animations and games using repetition. Their final project is to design and create a game which uses repetition, applying stages of programming design throughout.</p>

						<p>Additional learning links</p> <p>https://studio.code.org/s/course-2020/stage/7/puzzle/1</p> <p>2 x week Digital Literacy using project evolve resources (E-SAFETY)</p> <p>Privacy and Security Copyright and Ownership</p>
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(Digital Literacy) E-safety Year 4
<https://projectevolve.co.uk/toolkit/years/4/> and [https://digital-literacy.org.uk/curriculum-overview/year4/year-4-sol-\(1\).aspx/](https://digital-literacy.org.uk/curriculum-overview/year4/year-4-sol-(1).aspx/)

Teach 1 objective from each strand over the year (1 per half term)

Year 5	<p>Year 5</p> <p>Digital Literacy</p> <p>Unit 5.2 Online safety Weeks – 3 Programs – Various</p> <p>Information Technology</p> <p>Unit 5.4 Databases Weeks – 3 Programs – 2Question, 2Investigate</p> <p>1 x week Digital Literacy using project evolve resources (E-SAFETY)</p> <p>Self-Image and Identity</p>	<p>Year 5</p> <p>Computer Science</p> <p>Programming: Selection in physical computing BBC Microbits</p> <p>Night safety - Three simple projects to learn about the importance of road safety at night and create wearable devices to help young people 'Be Safe: Be Seen!' Design challenges for finding solutions to the Global Goals for sustainable development (SDGs). https://microbit.org/teach/lessons/night-safety/</p> <p>Lessons summary:</p> <p>In the Night sensor activity students create a wearable</p>	<p>Year 5</p> <p>Information Technology</p> <p>Unit 5.3 Spreadsheets Weeks – 5 Programs – 2Calculate</p> <p>2 x week Digital Literacy using project evolve resources (E-SAFETY)</p> <p>Online Reputation Online Bullying</p>	<p>Year 5</p> <p>Computer Science</p> <p>Unit 5.5 Game Creator Weeks – 4 Programs – 2DIY 3D</p> <p>1 x week Digital Literacy using project evolve resources (E-SAFETY)</p> <p>Managing Online Information</p>	<p>Year 5</p> <p>Information Technology</p> <p>Vector drawing</p> <p>In this unit, learners start to create vector drawings. They learn how to use different drawing tools to help them create images. Learners recognise that images in vector drawings are created using shapes and lines, and each individual element in the drawing is called an object. Learners layer their objects and begin grouping and duplicating them to support the creation of more complex pieces of work. This unit is planned using the Google Drawings app, other</p>	<p>Year 5</p> <p>Computer Science</p> <p>Programming- Selection-Cross curricular links</p> <p>Selection in quizzes(Y5) https://teachcomputing.org/curriculum/key-stage-2/programming-b-selection-in-quizzes</p> <p>In this unit, pupils develop their knowledge of selection by revisiting how conditions can be used in programs and then learning how the If... Then... Else structure can be used to select different outcomes depending on whether a condition is true or false. They represent this understanding in algorithms and then by constructing</p>
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		<p>device to give a visual and audio reminder when it is time to “Be Safe: Be Seen!” at nightfall.</p> <p>In the Flashing wheels project students design a prototype of a flashing wheel light to help improve road safety for a wheelchair user.</p> <p>In the Bag for Juliane project students learn about Juliane, a girl from Zimbabwe, and create a light-up bag for her journey to school.</p> <p>1 x week Digital Literacy using project evolve resources (E-SAFETY) Online Relationships</p>			<p>alternative pieces of software are available.</p> <p>https://teachcomputing.org/curriculum/key-stage-2/creating-media-vector-drawing</p> <p>1 x week Digital Literacy using project evolve resources (E-SAFETY) Health, Well-being and Lifestyle</p>	<p>programs using the Scratch programming environment. They use their knowledge of writing programs and using selection to control outcomes to design a quiz in response to a given task and implement it as a program.</p> <p>2 x week Digital Literacy using project evolve resources (E-SAFETY) Privacy and Security Copyright and Ownership</p>
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(Digital Literacy) E-safety Year 5

[https://digital-literacy.org.uk/curriculum-overview/year5/year-5-sol-\(1\).aspx/](https://digital-literacy.org.uk/curriculum-overview/year5/year-5-sol-(1).aspx/) and <https://projectevolve.co.uk/toolkit/years/5/>

Teach 1 objective from each strand over the year (1 per half term)

Year 6	Year 6	Year 6	Year 6	Year 6	Year 6	Year 6
	<p>Digital Literacy Unit 6.2 Online Safety Weeks 2</p> <p>Information Technology Unit 6.3 Spreadsheets Weeks – 3 (teach lessons 1-3) Programs – 2Calculate</p> <p>1 x week Digital Literacy using project evolve resources (E-SAFETY)</p>	<p>Computer Science</p> <p>Programming: Selection in physical computing BBC Microbits</p> <p>Being Active - Three simple projects to learn about the importance of being active to help prevent heart disease and create wearable devices to encourage people to be more active. Design challenges for finding solutions to the Global</p>	<p>Information Technology</p> <p>Unit 6.4 Blogging Weeks – 5 Programs – 2Blog</p> <p>2 x week Digital Literacy using project evolve resources (E-SAFETY) Online Reputation Online Bullying</p>	<p>Computer Science</p> <p>Programming A – Variables in games Programming A – Variables in games (teachcomputing.org) This unit explores the concept of variables in programming through games in Scratch. First, learners find out what variables are and relate them to real-world examples of values that can be set and changed. Then they use variables to create a simulation of a scoreboard. In</p>	<p>Information Technology</p> <p>Unit 6.7 Quizzing Weeks - 5</p> <p>1 x week Digital Literacy using project evolve resources (E-SAFETY) Health, Well-being and Lifestyle</p>	<p>Computer Science</p> <p>Programming B – Sensing https://teachcomputing.org/curriculum/key-stage-2/programming-b-sensing This unit is the final KS2 programming unit and brings together elements of all the four programming constructs: sequence from Year 3, repetition from Year 4, selection from Year 5, and variables (introduced in Year 6 – ‘Programming A’. It offers</p>

	<p>Self-Image and Identity</p>	<p>Goals for sustainable development (SDGs). https://microbit.org/teach/lessons/being-active/</p> <p>Lessons summary:</p> <p>In the Fitness friend activity students create a simple wearable device to give regular reminders to do some exercise.</p> <p>In the Heart rate monitor activity students learn how to measure their heart rate and create a prototype of a heart rate monitor.</p> <p>In the Walking for water activity students learn how some children have a daily walk for water and create a step counter to track their steps.</p> <p>1 x week Digital Literacy using project evolve resources (E-SAFETY) Online Relationships</p>		<p>Lessons 2, 3, and 5, which follow the Use-Modify-Create model, learners experiment with variables in an existing project, then modify them, before they create their own project. In Lesson 4, learners focus on design. Finally, in Lesson 6, learners apply their knowledge of variables and design to improve their games in Scratch.</p> <p>Help: Score https://projects.raspberrypi.org/en/projects/flappy-parrot https://projects.raspberrypi.org/en/projects/ghostbusters</p> <p>1 x week Digital Literacy using project evolve resources (E-SAFETY) Managing Online Information</p>		<p>pupils the opportunity to use all of these constructs in a different, but still familiar environment, while also utilising a physical device — the micro:bit. The unit begins with a simple program for pupils to build in and test within the new programming environment, before transferring it to their micro:bit. Pupils then take on three new projects in Lessons 2, 3, and 4, with each lesson adding more depth.</p> <p>2 x week Digital Literacy using project evolve resources (E-SAFETY) Privacy and Security Copyright and Ownership</p>
<p>(Digital Literacy) E-safety Year 6 https://digital-literacy.org.uk/curriculum-overview/year6/year-6-sol-(1).aspx/ and https://projectevolve.co.uk/toolkit/years/6/</p> <p>Teach 1 objective from each strand over the year (1 per half term)</p>						

Early Years Foundation Stage

The curriculum is taught through topics which ensure continuous provision and the skills progression as outlined in 'Birth to 5 Matters':

Understanding the World – Technology	
Range 3	<ul style="list-style-type: none">● Anticipates repeated sounds, sights and actions, e.g. when an adult demonstrates an action toy several times
Range 4	<ul style="list-style-type: none">● Seeks to acquire basic skills in turning on and operating some digital equipment
Range 5	<ul style="list-style-type: none">● Knows how to operate simple equipment, e.g. turns on CD player, uses a remote control, can navigate touch-capable technology with support● Shows an interest in technological toys with knobs or pulleys, real objects such as cameras, and touchscreen devices such as mobile phones and tablets● Shows skill in making toys work by pressing parts or lifting flaps to achieve effects such as sound, movements or new images● Knows that information can be retrieved from digital devices and the internet
Range 6	<ul style="list-style-type: none">● Completes a simple program on electronic devices● Uses ICT hardware to interact with age appropriate computer software● Can create content such as a video recording, stories, and/or draw a picture on screen● Develops digital literacy skills by being able to access, understand and interact with a range of technologies● Can use the internet with adult supervision to find and retrieve information of interest to them
ELG	<ul style="list-style-type: none">● None.

Key Stage 1

	Computer Science		Information Technology		Digital Literacy	
Statement	Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions.	Create and debug simple programs.	Use logical reasoning to predict the behaviour of simple programs.	Use technology purposefully to create, organise, store, manipulate and retrieve digital content.	Recognise common uses of information technology beyond school.	Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.
Year 1	Children understand that an algorithm is a set of instructions used to solve a problem or achieve an objective. They know that an algorithm written for a computer is called a program.	Children can work out what is wrong with a simple algorithm when the steps are out of order, e.g. The Wrong Sandwich in Purple Mash and can write their own simple algorithm, e.g. Colouring in a Bird activity. Children know that an unexpected outcome is due to the code they have created and can make logical attempts to fix the code, e.g. Bubbles activity in 2Code.	When looking at a program, children can read code one line at a time and make good attempts to envision the bigger picture of the overall effect of the program. Children can, for example, interpret where the turtle in 2Go challenges will end up at the end of the program.	Children are able to sort, collate, edit and store simple digital content e.g. children can name, save and retrieve their work and follow simple instructions to access online resources, use Purple Mash 2Quiz example (sorting shapes), 2Code design mode (manipulating backgrounds) or using pictogram software such as 2Count.	Children understand what is meant by technology and can identify a variety of examples both in and out of school. They can make a distinction between objects that use modern technology and those that do not e.g. a microwave vs. a chair.	Children understand the importance of keeping information, such as their usernames and passwords, private and actively demonstrate this in lessons. Children take ownership of their work and save this in their own private space such as their My Work folder on Purple Mash.
Year 2	Children can explain that an algorithm is a set of instructions to complete a task. When designing simple programs, children show an awareness of the need to be precise with their algorithms so that they can be successfully converted into code.	Children can create a simple program that achieves a specific purpose. They can also identify and correct some errors, e.g. Debug Challenges: Chimp. Children's program designs display a growing awareness of the need for logical, programmable steps.	Children can identify the parts of a program that respond to specific events and initiate specific actions. For example, they can write a cause and effect sentence of what will happen in a program.	Children demonstrate an ability to organise data using, for example, a database such as 2Investigate and can retrieve specific data for conducting simple searches. Children are able to edit more complex digital data such as music compositions within 2Sequence. Children are confident when creating, naming, saving and retrieving content. Children use a range of media in their digital content including photos, text and sound.	Children can effectively retrieve relevant, purposeful digital content using a search engine. They can apply their learning of effective searching beyond the classroom. They can share this knowledge, e.g. 2Publish example template. Children make links between technology they see around them, coding and multimedia work they do in school e.g. animations, interactive code and programs.	Children know the implications of inappropriate online searches. Children begin to understand how things are shared electronically such as posting work to the Purple Mash display board. They develop an understanding of using email safely by using 2Respond activities on Purple Mash and know ways of reporting inappropriate behaviours and content to a trusted adult.

Key Stage 2

Statement	Computer Science				Information Technology		Digital Literacy
	Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.	Use sequence, selection and repetition in programs; work with variables and various forms of input and output.	Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs.	Understand computer networks, including the internet; how they can provide multiple services, such as the World Wide Web, and the opportunities they offer for communication and collaboration.	Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content.	Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.	Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concern about content and contact.
Year 3	Children can turn a simple real-life situation into an algorithm for a program by deconstructing it into manageable parts. Their design shows that they are thinking of the desired task and how this translates into code. Children can identify an error within their program that prevents it following the desired algorithm and then fix it.	Children demonstrate the ability to design and code a program that follows a simple sequence. They experiment with timers to achieve repetition effects in their programs. Children are beginning to understand the difference in the effect of using a timer command rather than a repeat command when creating repetition effects.	Children's designs for their programs show that they are thinking of the structure of a program in logical, achievable steps and absorbing some new knowledge of coding structures. For example, repetition and use of timers. They make good attempts to 'step through' more complex code in order to identify errors in algorithms and can correct this. e.g. In programs such as Logo, they can 'read' programs with several steps and predict the outcome accurately.	Children can list a range of ways that the Internet can be used to provide different methods of communication. They can use some of these methods of communication, e.g. being able to open, respond to and attach files to emails using 2Email. They can describe appropriate email conventions when communicating in this way.	Children can carry out simple searches to retrieve digital content. They understand that to do this, they are connecting to the internet and using a search engine such as Purple Mash search or internet-wide search engines.	Children can collect, analyse, evaluate and present data and information using a selection of software, e.g. using a branching database (2Question), using software such as 2Graph. Children can consider what software is most appropriate for a given task. They can create purposeful content to attach to emails, e.g. 2Respond.	Children demonstrate the importance of having a secure password and not sharing this with anyone else. Furthermore, children can explain the negative implications of failure to keep passwords safe and secure. They understand the importance of staying safe and the importance of their conduct when using familiar communication tools such as 2Email in Purple Mash. They know more than one way to report unacceptable content and contact.

<p>Year 4</p>	<p>When turning a real-life situation into an algorithm, the children's design shows that they are thinking of the required task and how to accomplish this in code using coding structures for selection and repetition. Children make more intuitive attempts to debug their own programs.</p>	<p>Children's use of timers to achieve repetition effects are becoming more logical and are integrated into their program designs. They understand 'IF statements' for selection and attempt to combine these with other coding structures including variables to achieve the effects that they design in their programs. As well as understanding how variables can be used to store information while a program is executing, they are able to use and manipulate the value of variables. Children can make use of user inputs and outputs such as 'print to screen'. e.g. 2Code.</p>	<p>Children's designs for their programs show that they are thinking of the structure of a program in logical, achievable steps and absorbing some new knowledge of coding structures. For example, 'IF' statements, repetition and variables. They can trace code and use step-through methods to identify errors in code and make logical attempts to correct this. In programs such as Logo, they can 'read' programs with several steps and predict the outcome accurately.</p>	<p>Children recognise the main component parts of hardware which allow computers to join and form a network. Their ability to understand the online safety implications associated with the ways the internet can be used to provide different methods of communication is improving.</p>	<p>Children understand the function, features and layout of a search engine. They can appraise selected webpages for credibility and information at a basic level.</p>	<p>Children are able to make improvements to digital solutions based on feedback. Children make informed software choices when presenting information and data. They create linked content using a range of software such as 2Connect and 2Publish+. Children share digital content within their community, i.e. using Virtual Display Boards.</p>	<p>Children can explore key concepts relating to online safety using concept mapping such as 2Connect. They can help others to understand the importance of online safety. Children know a range of ways of reporting inappropriate content and contact.</p>
<p>Year 5</p>	<p>Children may attempt to turn more complex real-life situations into algorithms for a program by deconstructing it into manageable parts. Children are able to test and debug their programs as they go and can use logical methods to identify the approximate cause of any bug but may need some support identifying the specific line of code.</p>	<p>Children can translate algorithms that include sequence, selection and repetition into code with increasing ease and their own designs show that they are thinking of how to accomplish the set task in code utilising such structures. They are combining sequence, selection and repetition with other coding structures to achieve their algorithm design.</p>	<p>When children code, they are beginning to think about their code structure in terms of the ability to debug and interpret the code later, e.g. the use of tabs to organise code and the naming of variables</p>	<p>Children understand the value of computer networks but are also aware of the main dangers. They recognise what personal information is and can explain how this can be kept safe. Children can select the most appropriate form of online communications contingent on audience and digital content, e.g. 2Blog, 2Email, Display Boards.</p>	<p>Children search with greater complexity for digital content when using a search engine. They are able to explain in some detail how credible a webpage is and the information it contains.</p>	<p>Children are able to make appropriate improvements to digital solutions based on feedback received and can confidently comment on the success of the solution. e.g. creating their own program to meet a design brief using 2Code. They objectively review solutions from others. Children are able to collaboratively create content and solutions using digital features</p>	<p>Children have a secure knowledge of common online safety rules and can apply this by demonstrating the safe and respectful use of a few different technologies and online services. Children implicitly relate appropriate online behaviour to their right to personal privacy and mental wellbeing of themselves and others.</p>

						within software such as collaborative mode. They are able to use several ways of sharing digital content, i.e. 2Blog, Display Boards and 2Email.	
Year 6	Children are able to turn a more complex programming task into an algorithm by identifying the important aspects of the task (abstraction) and then decomposing them in a logical way using their knowledge of possible coding structures and applying skills from previous programs. Children test and debug their program as they go and use logical methods to identify the cause of bugs, demonstrating a systematic approach to try to identify a particular line of code causing a problem.	Children translate algorithms that include sequence, selection and repetition into code and their own designs show that they are thinking of how to accomplish the set task in code utilising such structures, including nesting structures within each other. Coding displays an improving understanding of variables in coding, outputs such as sound and movement, inputs from the user of the program such as button clicks and the value of functions.	Children are able to interpret a program in parts and can make logical attempts to put the separate parts of a complex algorithm together to explain the program as a whole.	Children understand and can explain in some depth the difference between the internet and the World Wide Web. Children know what a WAN and LAN are and can describe how they access the Internet in school.	Children readily apply filters when searching for digital content. They are able to explain in detail how credible a webpage is and the information it contains. They compare a range of digital content sources and are able to rate them in terms of content quality and accuracy. Children use critical thinking skills in everyday use of online communication.	Children make clear connections to the audience when designing and creating digital content. The children design and create their own blogs to become a content creator on the Internet, e.g. 2Blog. They are able to use criteria to evaluate the quality of digital solutions and are able to identify improvements, making some refinements.	Children demonstrate the safe and respectful use of a range of different technologies and online services. They identify more discreet inappropriate behaviours through developing critical thinking, e.g. 2Respond activities. They recognise the value in preserving their privacy when online for their own and other people's safety.

Our curriculum equips pupils to use computational thinking and creativity to understand and change the world. Computing has deep links with mathematics, science, and design and technology, and provides insights into both natural and artificial systems. The core of computing is computer science, in which pupils are taught the principles of information and computation, how digital systems work, and how to put this knowledge to use through programming. Building on this knowledge and understanding, pupils are equipped to use information technology to create programs, systems and a range of content. Computing also ensures that pupils become digitally literate – able to use, and express themselves and develop their ideas through, information and communication technology – at a level suitable for the future workplace and as active participants in a digital world.