

## Computing Curriculum Overview 2324

online safety calendar 2022-23 Statement Number	National Curriculum Statements
1.1	understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions
1.2	create and debug simple programs
1.3	use logical reasoning to predict the behaviour of simple programs
1.4	use technology purposefully to create, organise, store, manipulate and retrieve digital content
1.5	recognise common uses of information technology beyond school
1.6	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.

Teach Computing Taxonomy		
Abbreviation	Strand	Description
NW	Networks	Understand how networks can be used to retrieve and share information and come with associated risks
CM	Creating Media	Select and create a range of media including text, images, sounds and video.
DI	Data & Information	How is data stored, organised and used to represent real world artefacts and scenarios
DD	Design & Development	The activities involved in planning, creating and evaluating computing artefacts
CS	Computing Systems	What is a computer, how do it's constituent parts function together as a whole
IT	Impact of Technology	How individuals, systems and society as a whole interact with computer systems
AL	Algorithms	Being able to comprehend, design, create and evaluate algorithms
PG	Programming	Creating software to allow computers to solve problems
ET	Effective Use of tools	Use software tools to support computing work
SS	Safety & Security	Understanding risks when using technology and how to protect individuals and systems

National Curriculum Coverage – Key Stage 1 Computing Curriculum	1.1 Technology around us	1.2 Digital painting	1.3 Moving a robot	1.4 Grouping data	1.5 Digital writing	1.6 Programming animations	2.1 Informal/in technology around us	2.2 Digital photography	2.3 Robot algorithms	2.4 Pictograms	2.5 Making music	2.6 Programming quizzes
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	✓				✓	✓	✓			✓		

**ONLINE SAFETY:** the links between the content of the lessons and the national curriculum and **Education for a Connected World framework** ([nccce.io/efacw](https://nccce.io/efacw)). These references have been provided to show where aspects relating to online safety, or digital citizenship, are covered within Computing Curriculum. Not all of the objectives in the Education for a Connected World framework are covered in the Computing Curriculum, as some are better suited to personal, social, health, and economic (PSHE) education; spiritual, moral, social, and cultural (SMSC) development; and citizenship. However, the coverage required for the computing national curriculum is provided. Schools should decide for themselves how they will ensure that online safety is being managed effectively in their setting, as the scope of this is much wider than just curriculum content.

	Aut 1	Aut 2	Spr 1	Spr 2	Sum 1	Sum 2
<b>One World Many Colours</b>	<b>Orange</b> <i>Autumn, Harvest- pumpkins, Parklands, Allotments</i>	<b>Red</b> <i>London and its history</i>	<b>White</b> <i>Spring Frozen Planet</i>	<b>Blue</b> <i>Blue Planet titanic</i>	<b>Yellow</b> <i>Bees and Butterflies</i>	<b>Green</b> <i>Amazon jungle, Carnival</i>
Important events	<p>Online Safety calendar 2023-24</p> <p><b>Tue 7<sup>th</sup> Feb – National Online Safety Day</b></p> <p><b>“Want to talk about it? Making space for conversations about life online”</b></p> <p>The internet plays a huge part in the lives of young people today, with many playing online games, posting on social media, and using video sharing platforms. It can be used positively, helping young people learn new skills, express themselves creatively and strengthen social bonds. However, the use of many popular online platforms has also been linked to low self-esteem and anxiety. They also come with a set of safeguarding risks, from the pressure to participate in dangerous challenges to cyberbullying. It’s very important to provide young people with a safe space where they can share their thoughts, feelings, and experiences about life online. This can help educators and parents alike to promote wellbeing, and to better understand the specific safeguarding risks affecting the young people in their care.</p>					
<b>EYFS –</b> Embedded through all areas of learning <a href="#">Birthto5Matters Technology guidance</a>  <a href="#">Barefoot computing</a>  <a href="#">Computational Thinking</a>	Operating simple equipment: -Cd player -cameras -Ipad -Beebots -smartboard  Awesome Autumn  Computational thinking: Creating, Tinkering,	Using ipads to take photos (Purple Mash Mashcam) and record video.  Winter warmers  Computational thinking: collaboration, perservering,	Looking at the range of technology we have at school and at home (and studying their uses eg mixers, dishwashers, ovens, washing machines)  Springtime  Computational thinking: Pattern logical reasoning	Coding using Beebots logging on  Computational thinking: Abstraction Algorithms	Typing using laptops and ipads  Choosing technology to use for a specific purpose.  Summer fun	Choosing technology to use for a specific purpose.  Computational thinking: Decompostion
<b>Year 1 Overview</b> of curriculum areas: links to the <b>Education for a Connected World framework</b> ( <a href="#">nccce.io/efacw</a> )  Project Evolve	Computing systems and networks (Tech all around us: 1.1) - <b>Copyright and ownership</b> - <b>Health, well-being and lifestyle</b> Recognising technology in school and using it responsibly	Creating Media (Digital painting 1.2) Choosing appropriate tools in a program to create art, and making comparisons with working non-digitally – compare to painting in Term 1 drawing skills. <b>(Great fire of London landscape)</b>	Creating Media (Digital Writing: 1.5) Using a computer to create and format text, before comparing to writing non-digitally  <b>(conservation booklet)</b>	Programming A (Moving a Robot: 1.3) <b>Privacy &amp; security</b> Writing short algorithms and programs for floor robots, and predicting program outcomes  <b>(visiting the oceans and sea creatures)</b>	Data and information (Grouping data: 1.4) <b>Copyright &amp; ownership</b> Exploring object labels, then using them to sort and group objects by properties.  <b>(minibeast tally)</b>	Programming B (Programming animations:1.6) Designing and programming the movement of a character on screen to tell stories. <b>(Using the jungle backdrop on StractchJr)</b>

<p><b>Year 2 Overview</b> of curriculum areas: links to the <b>Education for a Connected World framework</b> (<a href="http://ncce.io/efacw">ncce.io/efacw</a>)</p> <p>Project Evolve</p>	<p>Data and information (Pictograms 2:4) - <b>Privacy and security</b> Collecting data in tally charts and using attributes to organise and present data on a computer.</p> <p><b>(vegetables grown on the allotment)</b></p>	<p>Computing systems and networks (IT around us: 2.1) - <b>Health, well-being and lifestyle</b> Information technology around us Identifying IT and how its responsible use improves our world in school and beyond.</p>	<p>Programming A (Robot Algorithms 2.3) - <b>Copyright and ownership</b> Creating and debugging programs and using logical reasoning to make predictions.</p> <p><b>(explorer journey)</b></p>	<p>Programming B (Programming quizzes:2.6) Designing algorithms and programs that use events to trigger sequences of code to make an interactive quiz.</p> <p><b>(A quiz about the titanic)</b></p>	<p>Creating Media (Digital Photography: 2.2) - <b>Self-image and identity</b> Capturing and changing digital photographs for different purposes – photos in nature</p>	<p>Creating Media (Making music: 2.5) Using a computer as a tool to explore rhythms and melodies, before creating a musical composition.</p> <p><b>(carnival music)</b></p>
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