

Year	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
EYFS	<ul style="list-style-type: none"> <li>-To follow simple instructions</li> <li>-To ask questions about the World around them</li> <li>-To use technology to take photos of the World around them</li> <li>-Begin to attempt to 'pix something that has broken or come apart'.</li> <li>-To group objects into separate groups</li> <li>-Use devices in an activity as an alternative to writing or drawing</li> </ul>					
Year 1	<p><b><u>Online Safety</u></b> <b><u>(2 Lessons)</u></b> To log in safely.</p> <p>To start to understand the idea of 'ownership' of their creative work.</p> <p>To become familiar with the types of resources available in the Topics section.</p> <p>To become more familiar with the icons used in the resources in the Topics section.</p> <p><b><u>Computing Systems and Networks – Technology Around Us</u></b> <b><u>TC 1</u></b> <b><u>(4 Lessons)</u></b> To identify technology</p>	<p><b><u>Creating Media</u></b> <b><u>Digital Painting TC 2</u></b> <b><u>(6 Lessons)</u></b></p> <p>To describe what different freehand tools do</p> <p>To use the shape tool and the line tools</p> <p>To make careful choices when painting a digital picture</p> <p>To explain why I chose the tools I used</p> <p>To use a computer on my own to paint a picture</p>	<p><b><u>Programming</u></b> <b><u>A Moving A Robot TC 3</u></b> <b><u>(6 Lessons)</u></b></p> <p>To explain what a given command will do</p> <p>To act out a given word</p> <p>To combine 'forwards' and 'backwards' commands to make a sequence</p> <p>To combine four direction commands to make sequences</p> <p>To plan a simple program</p>	<p><b><u>Data and Information</u></b> <b><u>Grouping Data TC 4</u></b> <b><u>(6 Lessons)</u></b></p> <p>To label objects</p> <p>To identify that objects can be counted</p> <p>To describe objects in different ways</p> <p>To count objects with the same properties</p> <p>To compare groups of objects</p> <p>To answer questions about groups of objects</p>	<p><b><u>Creating Media</u></b> <b><u>Digital Writing TC 5</u></b> <b><u>(6 Lessons)</u></b></p> <p>To use a computer to write</p> <p>To add and remove text on a computer</p> <p>To identify that the look of the text can be changed on a computer</p> <p>To make careful choices when changing text</p> <p>To explain why I used the tools that I chose</p>	<p><b><u>Programming B</u></b> <b><u>Programming Animations TC 6</u></b> <b><u>(6 Lessons)</u></b></p> <p>To choose a command for a given purpose</p> <p>To show that a series of commands can be joined together</p> <p>To identify the effect of changing a value</p> <p>To explain that each sprite has its own instructions</p> <p>To design the parts of a project</p>

	<p>To identify a computer and its main parts</p> <p>To use a mouse in different ways</p> <p>To use a keyboard to type on a computer</p>	<p>To compare painting a picture on a computer and on paper.</p>	<p>To find more than one solution to a problem</p> <p><u>Internet Safety Day</u> <u>Tuesday 7<sup>th</sup> February</u></p>		<p>To compare typing on a computer to writing on paper</p>	<p>To use my algorithm to create a program</p>
<p><b>Year 2</b></p>	<p><b><u>Online Safety</u></b> <b><u>(2 Lessons)</u></b></p> <p>To know how to refine searches using the Search tool.</p> <p>To have some knowledge and understanding about sharing work on the Internet.</p> <p>To understand how we talk to others when they aren't there in front of us.</p> <p><b><u>Computing Systems and Networks</u></b> <b><u>IT Around Us TC 1</u></b> <b><u>(4 Lessons)</u></b></p> <p>To recognise the uses and features of information technology</p> <p>To identify the uses of information technology in the school</p>	<p><b><u>Creating Media</u></b> <b><u>Digital Photography</u></b> <b><u>TC2</u></b> <b><u>(6 Lessons)</u></b></p> <p>To use a digital device to take a photograph</p> <p>To make choices when taking a photograph</p> <p>To describe what makes a good photograph</p> <p>To decide how photographs can be improved</p> <p>To use tools to change an image</p> <p>To recognise that photos can be changed</p>	<p><b><u>Programming A</u></b> <b><u>Robot Algorithms</u></b> <b><u>TC3</u></b> <b><u>(6 Lessons)</u></b></p> <p>To describe a series of instructions as a sequence</p> <p>To explain what happens when we change the order of instructions</p> <p>To use logical reasoning to predict the outcome of a programme</p> <p>To explain that programming projects can have code and artwork</p> <p>To design an algorithm</p> <p>To create and debug a program that I have written</p> <p><u>Internet Safety Day</u> <u>Tuesday 6<sup>th</sup> February</u></p>	<p><b><u>Data and Information</u></b> <b><u>Pictograms</u></b> <b><u>TC4</u></b> <b><u>(6 Lessons)</u></b></p> <p>To recognise that we can count and compare objects using tally charts</p> <p>To recognise that objects can be represented as pictures</p> <p>To create a pictogram</p> <p>To select objects by attribute and make comparisons</p> <p>To recognise that people can be described by attributes</p> <p>To explain that we can present information using a computer</p>	<p><b><u>Creating Media</u></b> <b><u>Digital Music</u></b> <b><u>TC5</u></b> <b><u>(6 Lessons)</u></b></p> <p>To say how music can make us feel</p> <p>To identify that there are patterns in music</p> <p>To experiment with sound using a computer</p> <p>To use a computer to create a musical pattern</p> <p>To create music for a purpose</p> <p>To review and refine our computer work</p>	<p><b><u>Programming B</u></b> <b><u>Programming Quizzes</u></b> <b><u>TC6</u></b> <b><u>(6 Lessons)</u></b></p> <p>To explain that a sequence of commands has a start</p> <p>To explain that a sequence of commands has an outcome</p> <p>To create a program using a given design</p> <p>To change a given design</p> <p>To create a program based on the new design</p> <p>To decide how my project can be improved</p>

	<p>To identify information technology beyond school</p> <p>To explain how information technology helps us</p>					
<p><b>Year 3</b></p>	<p><b><u>Online Safety</u></b> <b><u>(2 Lessons)</u></b></p> <p>To know what makes a safe password, how to keep passwords safe and the consequences of giving your passwords away.</p> <p>To understand how the Internet can be used to help us to communicate effectively.</p> <p>For children to consider if that they read on websites is true?</p> <p>To look at some 'spooof' websites.</p> <p>To create a 'spooof' webpage.</p> <p>To think about why these sites might exist and how to check that the information is accurate.</p> <p><b><u>Computing Systems and Networks</u></b></p>	<p><b><u>Creating Media</u></b> <b><u>Stop-Frame Animation</u></b> <b><u>TC2</u></b> <b><u>(6 Lessons)</u></b></p> <p>To explain that animation is a sequence of drawings or photographs</p> <p>To relate animated movement with a sequence of images</p> <p>To plan an animation</p> <p>To identify the need to work consistently and carefully</p> <p>To review and improve an animation</p>	<p><b><u>Programming A</u></b> <b><u>Sequencing Sounds</u></b> <b><u>TC3</u></b> <b><u>(6 Lessons)</u></b></p> <p>To explore a new programming environment</p> <p>To identify that commands have an outcome</p> <p>To explain that a program has a start</p> <p>To recognise that a sequence of commands can have an order</p> <p>To change the appearance of my project</p>	<p><b><u>Data and Information</u></b> <b><u>Branching Databases</u></b> <b><u>TC4</u></b> <b><u>(6 Lessons)</u></b></p> <p>To create questions with yes/no answers</p> <p>To identify the attributes needed to collect data about an object</p> <p>To create a branching database</p> <p>To explain why it is helpful for a database to be well structured</p> <p>To plan the structure of a branching database</p>	<p><b><u>Creating Media</u></b> <b><u>Desktop Publishing</u></b> <b><u>TC5</u></b> <b><u>(6 Lessons)</u></b></p> <p>To recognise how text and images convey information</p> <p>To recognise that text and layout can be edited</p> <p>To choose appropriate page settings</p> <p>To add content to a desktop publishing publication</p> <p>To consider how different layouts can suit different purposes</p>	<p><b><u>Programming B</u></b> <b><u>Events and Actions in Programs</u></b> <b><u>TC6</u></b> <b><u>(6 Lessons)</u></b></p> <p>To explain how a sprite moves in an existing project</p> <p>To create a program to move a sprite in four directions</p> <p>To adapt a program to a new context</p> <p>To develop my program by adding features</p> <p>To identify and fix bugs in a program</p> <p>To design and create a maze-based challenge.</p>

	<p><b><u>Connecting Computers TC 1 (4 Lessons)</u></b></p> <p>To explain how digital devices function</p> <p>To identify input and output</p> <p>To recognise how digital devices can change the way that we work</p> <p>To explain how a computer network can be used to share information.</p>	<p>To evaluate the impact of adding other media to an animation.</p>	<p>To create a project from a task description.</p> <p><u>Internet Safety Day</u> <u>Tuesday 6<sup>th</sup> February</u></p>	<p>To independently create an identification tool</p>	<p>To consider the benefits of desktop publishing</p>	
<p><b>Year 4</b></p>	<p><b><u>Online Safety (2 Lessons)</u></b></p> <p>To share knowledge of online safety</p> <p>To create and share an online safety presentation and information materials.</p> <p><b><u>Computing Systems and Networks The Internet TC 1 (4 Lessons)</u></b></p> <p>To describe how networks physically connect to other networks</p> <p>To recognise how networked devices make up the internet</p>	<p><b><u>Creating Media Audio Production TC2 (6 Lessons)</u></b></p> <p>To identify that sound can be recorded</p> <p>To explain that audio recordings can be edited</p> <p>To recognise the different parts of creating a podcast project</p> <p>To apply audio editing skills independently</p> <p>To combine audio or enhance my podcast project</p> <p>To evaluate the effective use of audio</p>	<p><b><u>Programming A Repetition in Shapes TC3 (6 Lessons)</u></b></p> <p>To identify that accuracy in programming is important</p> <p>To create a program in a text-based language</p> <p>To explain what 'repeat' means</p> <p>To modify a count-controlled loop to produce a given outcome</p> <p>To decompose a task into small steps</p>	<p><b><u>Data and Information Data Logging TC4 (6 Lessons)</u></b></p> <p>To explain that data gathered over time can be used to answer questions</p> <p>To use a digital device to collect data automatically</p> <p>To explain that a data logger collects 'data points' from sensors over time</p> <p>To recognise how a computer can help us analyse data</p> <p>To identify the data needed to answer questions</p>	<p><b><u>Creating Media Photo Editing TC5 (6 Lessons)</u></b></p> <p>To explain that the composition of digital images can be changed</p> <p>To explain that colours can be changed in digital images</p> <p>To explain how cloning can be used in photo editing</p> <p>To explain that images can be combined</p> <p>To combine images for a purpose</p> <p>To evaluate how changes can improve an image</p>	<p><b><u>Programming B Repetition in Games TC6 (6 Lessons)</u></b></p> <p>To develop the use of count-controlled loops in a different programming environment</p> <p>To explain that in programming there are infinite loops and count-controlled loops</p> <p>To develop a design that includes two or more loops which run at the same time</p> <p>To modify an infinite loop in a given program</p>

	<p>To outline how websites can be shared via the World Wide Web (WWW)</p> <p>To describe how content can be added and accessed on the World Wide Web (WWW)</p> <p>To recognise how the content of the WWW is created by people.</p>		<p>To create a program that uses count-controlled loops to produce a given outcome.</p> <p><u>Internet Safety Day</u> <u>Tuesday 6<sup>th</sup> February</u></p>	<p>To use data from sensors to answer questions</p>		<p>To design a project that includes repetition</p> <p>To create a project that includes repetition.</p>
<p><b>Year 5</b></p>	<p><b><u>Online Safety</u></b> <b><u>(2 Lessons)</u></b></p> <p>To discuss and understand the importance of keeping personal information safe.</p> <p>To understand issues concerning the reliability of sources and people online.</p> <p>To create a comic strip to share knowledge about online safety.</p> <p><b><u>Computing Systems and Networks</u></b> <b><u>Systems and Searching</u></b> <b><u>TC 1</u></b> <b><u>(4 Lessons)</u></b></p>	<p><b><u>Creating Media</u></b> <b><u>Video Production TC2</u></b> <b><u>(6 Lessons)</u></b></p> <p>To explain what makes a video effective</p> <p>To use a digital device to record video</p> <p>To capture video using a range of techniques</p> <p>To create a storyboard</p> <p>To identify that video can be improved through reshooting and editing</p> <p>To consider the impact of the choices made when making and sharing video.</p>	<p><b><u>Programming A</u></b> <b><u>Selection in Physical</u></b> <b><u>Computing TC3</u></b> <b><u>(6 Lessons)</u></b></p> <p>To control a simple circuit connected to a computer</p> <p>To write a program that includes count-controlled loops</p> <p>To explain that a loop can stop when a condition is met</p> <p>To explain that a loop can be used to repeatedly check whether a condition has been met</p>	<p><b><u>Data and Information</u></b> <b><u>Flat-File Databases</u></b> <b><u>TC4</u></b> <b><u>(6 Lessons)</u></b></p> <p>To use a form to record information</p> <p>To compare paper and computer-based databases</p> <p>To outline how you can answer questions by grouping and then sorting data</p> <p>To explain that tools can be used to select specific data</p>	<p><b><u>Creating Media</u></b> <b><u>Introduction to Vector</u></b> <b><u>Graphics TC5</u></b> <b><u>(6 Lessons)</u></b></p> <p>To identify that drawing tools can be used to produce different outcomes</p> <p>To create a vector drawing by combining shapes</p> <p>To use tools to achieve a desired effect</p> <p>To recognise that vector drawings consist of layers</p> <p>To group objects to make them easier to work with</p>	<p><b><u>Programming B</u></b> <b><u>Selection in Quizzes</u></b> <b><u>TC6</u></b> <b><u>(6 Lessons)</u></b></p> <p>To explain how selection is used in computer programs</p> <p>To relate that a conditional statement connects a condition to an outcome</p> <p>To explain how selection directs the flow of a program</p> <p>To design a program that uses selection</p> <p>To create a program that uses selection</p>

	<p>To explain that computers can be connected together to form systems</p> <p>To recognise the role of computer systems in our lives</p> <p>To identify how to use a search engine</p> <p>To describe how search engines select results.</p>		<p>To design a physical project that includes selection</p> <p>To create a program that controls a physical computing project</p> <p><u>Internet Safety Day</u> <u>Tuesday 6<sup>th</sup> February</u></p>	<p>To explain that computer programs can be used to compare data visually</p> <p>To use real-world database to answer questions</p>	<p>To apply what I have learned about vector drawings.</p>	<p>To evaluate my program</p>
<p><b>Year 6</b></p>	<p><b><u>Online Safety</u></b> <b><u>(2 Lessons)</u></b></p> <p>To review aspects of online safety and make an online safety themed game</p> <p>To learn about the safety aspects of blogging</p> <p><b><u>Computing Systems and Networks</u></b> <b><u>Communication and Collaboration</u></b> <b><u>TC 1</u></b> <b><u>(4 Lessons)</u></b></p> <p>To explain the importance of internet addresses</p>	<p><b><u>Creating Media</u></b> <b><u>Web Page Creation</u></b> <b><u>TC 2</u></b> <b><u>(6 Lessons)</u></b></p> <p>To review an existing website and consider its structure</p> <p>To plan the features of a web page</p> <p>To consider the ownership and use of images (copyright)</p> <p>To recognise the need to preview pages</p> <p>To outline the need for a navigation path</p>	<p><b><u>Programming A</u></b> <b><u>Variables in Games</u></b> <b><u>TC3</u></b> <b><u>(6 Lessons)</u></b></p> <p>To define a 'variable' as something that is changeable</p> <p>To explain why a variable is used in a program</p> <p>To choose how to improve a game by using variables</p> <p>To design a project that builds on a given example.</p> <p>To use my design to create a project</p> <p>To evaluate my project</p>	<p><b><u>Data and Information</u></b> <b><u>Spreadsheets TC4</u></b> <b><u>(6 Lessons)</u></b></p> <p>To create a data set in a spreadsheet</p> <p>To build a data set in a spreadsheet</p> <p>To explain that formulas can be used to produce calculated data</p> <p>To apply formulas to data</p> <p>To create a spreadsheet to plan an event</p> <p>To choose suitable ways to present data</p>	<p><b><u>Creating Media</u></b> <b><u>3D Modelling TC5</u></b> <b><u>(6 Lessons)</u></b></p> <p>To recognise that you can work in three dimensions on a computer</p> <p>To identify that digital 3D objects can be modified</p> <p>To recognise that objects can be combined in a 3D model</p> <p>To create a 3D model for a given purpose</p> <p>To plan my own 3D model</p> <p>To create my own digital 3D model.</p>	<p><b><u>Programming B</u></b> <b><u>Sensing Movement TC6</u></b> <b><u>(6 Lessons)</u></b></p> <p>To create a program to run on a controllable device</p> <p>To explain that selection can control the flow of a program</p> <p>To update a variable with a user input</p> <p>To use a conditional statement to compare a variable to a value</p> <p>To design a project that uses inputs and outputs on a controllable device</p>

	<p>To recognise how data is transferred across the internet</p> <p>To explain how sharing information online can help people to work together.</p> <p>To evaluate different ways of working together online.</p>	<p>To recognise the implications of liking to content owned by other people</p>	<p><u>Internet Safer Day</u> <u>Tuesday 6<sup>th</sup> February</u></p>			<p>To develop a program to use inputs and outputs on a controllable device</p>
--	--	---	---	--	--	--

### Key Stage One National Curriculum

NC1. Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions

NC2. Create and debug simple programs

NC3. Use logical reasoning to predict the behaviour of simple programs

NC4. Use technology purposefully to create, organise, store, manipulate and retrieve digital content

NC5. Recognise common uses of information technology beyond school

NC6. 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 Stage Two National Curriculum

NC1. Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts

NC2. Use sequence, selection, and repetition in programs; work with variables and various forms of input and output

NC3. Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs

NC4. 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

NC5. Search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content

NC6. 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

NC7. Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.

## E-Safety – Useful Links

- Education City - <https://ecl.educationcity.com/search/results/#q=esafety>
- Purple Mash - <https://www.purplemash.com/#tab/pm-home/computing>
- Common Sense Media - <https://www.commonsensemedia.org/social-media>
- Net Aware - <https://www.net-aware.org.uk/>
- Child Net – School Pack - <http://www.childnet.com/resources/school-pack-for-online-safety-awareness>
- Internet Matters – Social Media - <https://www.internetmatters.org/advice/social-media/>
- Safer Internet Day - <https://www.saferinternet.org.uk/advice-centre/parents-and-carers/resources-parents>
- Internet Matters - <https://www.internetmatters.org/wp-content/uploads/2015/12/Official-UK-social-media-guidance-UKCCIS.pdf>
- NSPCC - <https://www.nspcc.org.uk/preventing-abuse/keeping-children-safe/online-safety/>
- Safety Net Kids - <http://www.safetynetkids.org.uk/personal-safety/staying-safe-online/>
- Kid Smart - <http://www.kidsmart.org.uk/>
- Child Net - <http://www.childnet.com/>
- Get Safe Online - <https://www.getsafeonline.org/safeguarding-children/>
- GOV.uk - <https://www.gov.uk/government/groups/uk-council-for-child-internet-safety-ukccis>
- Child Internet Safety - <http://www.childinternetsafety.co.uk/>
- Think U Know - <https://www.thinkuknow.co.uk/>
- TES - <https://www.tes.com/teaching-resources/digital-citizenship>