

### Intent - What does my subject look like in each of the pathways?

Engage	Discovery	Develop	Deepen
Students will experience the sensory aspects of computer science, e-safety, digital literacy and information technology. Through this students will experience the internet, and <b>powered devices</b> and <b>experience</b> different forms of communication.	Students will identify different aspects of computer science, e-safety, digital literacy and information technology. Students will discover different types of data, exploring different types of <b>programs</b> and equipment as well as exploring the internet and how to use it safely as well as other types of technology.	Students will be able to identify different types of technology that link with computer science, e-safety, digital literacy and information technology. Students will be able to develop their knowledge around keeping safe online. Students will be able to describe how to use different types of technology and how they can be used to communicate.	Students will be able to identify and share different ways to keep themselves and their personal information safe whilst using different types of technology that link with computer science, e-safety, digital literacy and information technology. Students will be able to describe how to use a variety of different devices and explain the reasons for using them.

### What does my subject look like in each of the pathways, for each of our drivers?

	Engage	Discovery	Develop	Deepen
Communication	Students will be introduced how to communicate through AAC, gestures, signs and symbols. to make choices and discover a range of digitally based games and activities including simple cause and effect resources. Students will experience the sensory aspect of technology and how they communicate their choices to others.	Students will communicate using speech, ACC, gestures, signs and symbols to show their involvement in computing based activities. To make choices and discover a range of digitally based games	Pupils will communicate through speech & vocalisation, actions, AAC devices or movement in order to begin to develop their skills in the use of touch screen, mouse and a keyboard to create digital communications through photography and video as well as words.	Pupils will communicate using appropriate software deepening their knowledge and understanding of mouse and keyboard skills as well as presentation of written and graphic information. Students can competently identify different sources for communication in the real world and online.
Independence	Students start to identify different computing skills	Students will independently engage with and discover touch screen,	Pupils will independently recognise digital ways to gather, manage and	Pupils will independently select appropriate software or search

	through various sensory experiences. Students will have some understanding of computers, technology and the importance of staying safe while developing an understanding of who they are.	mouse and switch controlled technology to play games and make marks. Students will be able give examples of how technology can be used to communicate with others	manipulate information. They will develop knowledge of software functionality to gather and present information.	engines for themselves and can independently use these to find and present information. They will deepen their knowledge of software's more complex functionality to gather and present information including manipulating data.
<b>Resilience</b>	Students will start to understand how they are responsible for communicating their wants, needs and preferences to a whole variety of audiences, and their decisions will be respected by peers and adults.	Students will be building their knowledge on how to keep themselves safe online, and to learn how actions of others can affect the way we feel. Students will also discover how their actions can directly impact how others may feel.	Students will learn how the internet and technology can be used to help them in life. Students are also developing skills that will better prepare them for life after Newman, and can identify trusted sources of information.	Students fully understand the importance of using technology safely, responsibly and respectfully. Students can competently use technology in real life, but can also identify a wide range of ways to protect their personal information and report any concerns about content and contact.

### Implement - What does my subject look like in each of the Newman sites?

Whiston	Dinnington	NAR
Students in EYFS, KS1 and KS2 have 1 lesson of computing a week in their own class with their class teacher. Which follows a progressive half term plan, The yearly overview looks at skills across the 3 strands of computing throughout the year but also an e-safety element each term which is taught throughout the term. With a focus on E-safety before the major holidays for the children.	The KS3 and KS4 students have 1 lesson a week which follows a progressive half term plan, following an adapted form of the national curriculum. The yearly overview looks at skills across the 3 strands of computing throughout the year but also an e-safety element each term which is taught throughout the term. With a focus on E-safety before the major holidays for the children. KS5 students have 1 lesson a week on E-safety. This looks at skills these students need to prepare them for adult hood.	The KS2 and KS3 students have 1 lesson a week, which follows a progressive half term plan, following an adapted form of the national curriculum. The yearly overview looks at skills across the 3 strands of computing throughout the year but also an e-safety element each term which is taught throughout the term. With a focus on E-safety before the major holidays for the children. KS4 and KS5 students have 1 lesson a week on E-safety. This looks at skills these students need to prepare them for adult hood.

EYFS Area of Learning				<b>ELG</b> <b>Personal, Social and Emotional Development Managing Self</b>
Personal, Social and Emotional Development	Remember rules without needing an adult to remind them.	Show resilience and perseverance in the face of a challenge.	Know and talk about the different factors that support their overall health and wellbeing: - sensible amounts of 'screen time'	<ul style="list-style-type: none"> <li>• Be confident to try new activities and show independence, resilience and perseverance in the face of challenge.</li> <li>• Explain the reasons for rules, know right from wrong and try to behave accordingly.</li> </ul>
Physical Development	Match their developing physical skills to tasks and activities in the setting.	Develop their small motor skills so that they can use a range of tools competently, safely and confidently.		
Understanding the World	Identify how things work			<b>ELG</b> <b>Expressive Arts and Design</b> <b>Creating with materials</b>
Expressive Arts and Design	Explore, use and refine a variety of artistic effects to express their ideas and feelings.			Safely use and Identify a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function

## Computing 3 Strands

Information Technology	This part of the curriculum is essentially most of the old ICT curriculum. As stated in the introduction, most of these objectives should be covered by using tech creatively across the rest of the curriculum, although it may be necessary to teach some discrete skills, hence the tinkering sessions. Learners should know that technology is everywhere, be able to identify the technology they encounter and have a growing understanding of how it works. We have broken down this part of computing into activities for word processing, spreadsheets and data handling, presentation, ebook creation, web design, animation, video creation, photography and art, sound.
Computer Science	Computer science has been broken down into three strands: Computational Thinking, Programming and Computer Networks. Computational Thinking is all about solving problems effectively with or without a computer. Computational thinking is about looking at a problem in a way in which a computer can help us to solve it. This is a two-step process: 1. First, we think about the sequence of steps (an algorithm) needed to solve a problem 2. Then, we use our technical skills to get the computer working on the problem as we implement our algorithm as code. They also need to be able to find mistakes and fix them (debugging.) Once learners have created a program they need to learn to evaluate and look at different ways to achieve the same goal and which method is most appropriate. As learners get older the programs they write will become more complex using a range of constructs such as sequence, selection, repetition and variables in their programs. KS 2 pupils also require knowledge of networks, such as the Internet, work and how searches are performed.
Digital Literacy	Today's children and young people are growing up in a digital world. As they grow older, it is crucial that they learn to balance the benefits offered by technology with a critical awareness of their own and other's online behaviour, and develop effective strategies for staying safe and making a positive contribution online. This framework describes the skills and understanding that children and young people should have the opportunity to develop at different ages and stages. It highlights what a child should know in terms of current online technology, its influence on behaviour and development, and what skills they need to be able to navigate it safely.

# EYFS

	<b>Autumn</b> Computer Science & E-Safety <b>Toys and Objects</b>	<b>Spring</b> Information Technology & E-Safety <b>Photos and images</b>	<b>Summer</b> Digital Literacy & E-Safety <b>Sounds and Music</b>	<b>ELG</b>
<b>EYFS</b>	E: Experience sensory aspects of objects (cause and effect) <ul style="list-style-type: none"> <li>knocking blocks over, moving toy cars</li> </ul> Di: Identify objects <ul style="list-style-type: none"> <li>It can be class room equipment, do they know how to use it properly.</li> </ul> Dev: Use different objects for a purpose <ul style="list-style-type: none"> <li>Using a toy screw driver to turn a screw</li> </ul>	E: Experience being able to identify a favourite image <ul style="list-style-type: none"> <li>animal on a farm</li> </ul> Di: Identify being able to match images to object <ul style="list-style-type: none"> <li>donkey pic and toy</li> </ul> Dev: Sorting images into two groups <ul style="list-style-type: none"> <li>animals with 4 legs, and animals with wings</li> </ul>	E: Can create a sound to indicate a choice. <ul style="list-style-type: none"> <li>Given 2 choices which do they prefer</li> </ul> Di: Can indicate preferred digital image to communicate a choice. <ul style="list-style-type: none"> <li>Show the children 2 different apps for games or <b>programs</b> can they choose the 1 they prefer?</li> </ul> Dev: Identify sounds from different locations. <ul style="list-style-type: none"> <li>Go outside and listen for noises can they face the way the sound is coming from.</li> </ul>	
Personal, Social and Emotional Development	Remember rules without needing an adult to remind them.	Show resilience and perseverance in the face of a challenge.	Know and talk about the different factors that support their overall health and wellbeing: -sensible amounts of 'screen time' Know what to do if they are upset.	<ul style="list-style-type: none"> <li>Be confident to try new activities and show independence, resilience and perseverance in the face of challenge.</li> <li>Explain the reasons for rules, know right from wrong and try to behave accordingly</li> </ul>

Physical Development	Match their developing physical skills to tasks and activities in the setting.	Develop their small motor skills so that they can use a range of tools competently, safely and confidently.		
Understanding the world	Identify how things work			
Expressive Art and Design	Explore, use and refine a variety of artistic effects to express their ideas and feelings.			Safely use and Identify a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function
E-safety	<p>E: Experience what is mine and not mine using concrete objects and belongings</p> <ul style="list-style-type: none"> <li>• Can they find their own coat?</li> </ul> <p>Di: Identify different places they can keep their belonging</p> <ul style="list-style-type: none"> <li>• Do they know where things belong?</li> </ul> <p>Dev: Discover the importance of keeping physical belonging safe e.g. work in folder</p> <ul style="list-style-type: none"> <li>• Get the children to put things away where they belong and understand why they should be there.</li> </ul>			

# KS1

	<b>Autumn 1</b> <b>Information Technology</b> <b>Technology around us</b>	<b>Autumn 2</b> <b>Digital Literacy</b> <b>Digital painting</b>	<b>Spring 1</b> <b>Computer Science</b> <b>Cause and effect</b>	<b>Spring 2</b> <b>Information Technology</b> <b>Sorting</b>	<b>Summer 1</b> <b>Digital Literacy</b> <b>Digital Text</b>	<b>Summer 2</b> <b>Computer Science</b> <b>Programming</b>
<b>Cycle A</b>	<p>E: Experience sensory aspect of technology in the classroom Di: Identify technology in the classroom Dev: Able to identify types of technology in the classroom</p> <ul style="list-style-type: none"> <li>Identify technology</li> <li>Identify a computer and its main parts</li> <li>Use a mouse in different ways</li> <li>Use a keyboard/touch screen.</li> <li>Can they move objects on the screen</li> <li>Create rules to use technology responsibly</li> </ul>	<p>E: Experience images on different device Di: Identify images on different device Dev: With support can indicate what image they want to find on the internet.</p> <ul style="list-style-type: none"> <li>Look at the different tools in a paint applications</li> <li>Communicate what they can see in an image.</li> <li>Use shape and line tools</li> <li>Create a digital picture</li> <li>Compare a drawn picture to a picture on the computer</li> </ul>	<p>E: Experience sensory aspects of using technological devices. Di: Identify the use of technological devices Dev: Choose a technological device for a purpose</p> <ul style="list-style-type: none"> <li>Experience different technology's that have a cause and effect aspect, if you press this, the light will flash.</li> <li>Listen to and look at different devices making sounds and images.</li> <li>Identify</li> </ul>	<p>E: Experience sorting activities Di: Identify sorting activities Dev: Able to sort information.</p> <ul style="list-style-type: none"> <li>Label objects</li> <li>Count objects</li> <li>Describe objects in different ways</li> <li>Count objects with same properties</li> </ul>	<p>E: Experience sensory aspects of digital text and communication. Di: Identify digital text and communication. Dev: With support create a digital text and communication.</p> <ul style="list-style-type: none"> <li>Listen to audio stories with digital text.</li> <li>Use a key board</li> <li>Add and remove text from a screen</li> <li>Can recognise letters on a keyboard</li> <li>Can use the space bar, delete, number keys.</li> </ul>	<p>E: Experience different device that can be turned on and off. Di: Can name different items that have plugs Dev: To identify the dangers of plugged items and electrical sockets.</p> <ul style="list-style-type: none"> <li>Use different toys that move or make noise and get the children to turn them on and off.</li> <li>Identify the classroom/school what has a plug?</li> <li>Know some dangers around electrical</li> </ul>

		<a href="#">Paints.app</a> <a href="#">Kaleidoscope painter</a> <a href="#">Jacksonpollock.com</a>	different devices that can play sounds, images/videos and lights.		<a href="#">Chatter kids</a> <a href="#">Voki.com</a>	items
E-safety	E: Experience sensory aspects of making different choices <ul style="list-style-type: none"> <li>Do they prefer sand or water tray?</li> </ul> Di: Identify being able to make choices with support. <ul style="list-style-type: none"> <li>Can make a choice of what they want to play/work with.</li> </ul> De: Identify when to say yes or no to peers and adults. Given chance to say yes or no to an adult if they don't like something.					
	<b>Autumn 1</b> Information Technology Information Technology around us	<b>Autumn 2</b> Digital Literacy Digital Photography	<b>Spring 1</b> Computer Science Algorithms	<b>Spring 2</b> Information Technology Pictograms	<b>Summer 1</b> Digital Literacy Digital Music	<b>Summer 2</b> Computer Science <b>Programming</b>
Cycle B	E: Experience sensory aspects of using <b>powered</b> devices. Di: Identify the use of technological devices Dev: Describe how to use different technological device. <ul style="list-style-type: none"> <li>Recognise features of technological equipment.</li> <li>Technological</li> </ul>	E: Experience sensory aspects of photographs and cameras Di: Identify photographs and cameras Dev: Describe ways to create a photograph of a specified object. <ul style="list-style-type: none"> <li>Use a digital device to take a photo</li> <li>Say which photo they prefer and</li> </ul>	E: Experience sensory aspects of instructions Di: Identify listening to and giving instructions. Dev: Able to Describe what a command will do. <ul style="list-style-type: none"> <li>To act out a given word</li> <li>To follow forward and</li> </ul>	E: Experience sensory aspects of data collecting. Di: Identify pictograms. Dev: Able to create pictograms with support. <ul style="list-style-type: none"> <li>Use a tally chart</li> <li>Do a physical pictogram with objects.</li> </ul>	E: Experience sensory aspects of music. Di: Identify creating music using different programs. Dev: Create a digital music sequence. <ul style="list-style-type: none"> <li>How does music make us feel?</li> <li>Experiment using sound on a</li> </ul>	E: Experience instructions. Di: Identify creating sequences and algorithms Dev: Know how to create an algorithm for a purpose. <ul style="list-style-type: none"> <li>Know algorithms/instructions need and start and</li> </ul>

	<p>treasure hunt in school.</p> <ul style="list-style-type: none"> <li>• How can technology help us?</li> </ul>	<p>why.</p> <ul style="list-style-type: none"> <li>• Communicate about an image taken.</li> <li>• Take photos in landscape and portrait.</li> </ul> <p>Photobooth</p>	<p>backward commands</p> <ul style="list-style-type: none"> <li>• To follow left and right commands</li> <li>• To plan a simple sequence e.g forwards 1 step, backwards 1 step, left 1 step, right 1 step.</li> <li>• Follow a simple sequence.</li> </ul>	<ul style="list-style-type: none"> <li>• Know objects can be represented as pictures.</li> <li>• Create a pictogram.</li> <li>• Understand some information shown in the pictogram. Biggest smallest.</li> </ul>	<p>computer. Purple mash music applications.</p> <p>Chrome music lab Blob opera Patatap</p>	<p>end.</p> <ul style="list-style-type: none"> <li>• Know how to run a program.</li> <li>• Build a sequence of blocks from a design.</li> <li>• Work out actions from an algorithm.</li> </ul> <p>Lego 6 bricks Beebots Beebot app</p>
<p>E- safet Y</p>	<p>E: Experience the sensory aspects of going online with adult supervision</p> <ul style="list-style-type: none"> <li>• The adult to put different websites on for the children to watch and listen to.</li> </ul> <p>Di: Exploring the online world with adult support</p> <ul style="list-style-type: none"> <li>• Children to Identify different websites with support.</li> </ul> <p>Dev: Explain why they should always ask a trusted adult before they share any information about themselves</p> <p>Can identify who trusted adults are.</p>					

National Curriculum Coverage Key stage 1	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Understand what algorithms are, how they are implemented as <b>programs</b> on digital devices, and that <b>programs</b> execute by following precise and unambiguous instructions			X			X			X			X
Create and debug simple <b>programs</b>			X			X			X			X
Use logical reasoning to predict the behaviour of simple <b>programs</b>			X			X			X			X
Use technology purposefully to create, organise, store, manipulate, and retrieve digital content	X	X		X	X		X	X		X	X	X
Recognise common uses of information technology beyond school	X		X				X	X				
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	X			X	X		X	X	X	X		

	Autumn 1 Information Technology	Autumn 2 Digital Literacy & E-Safety	Spring 1 Computer Science Programming	Spring 2 Information Technology	Summer 1 Digital Literacy & E-Safety	Summer 2 Computer Science Programming
Cycle A	<p>E: E: Experience different powered devices.</p> <p>Di: Identify a digital maps</p> <ul style="list-style-type: none"> <li>• Can they find where they live?</li> <li>• What countries can they find?</li> </ul> <p>Dev: Describe where they live linking to personal information.</p> <ul style="list-style-type: none"> <li>• Do they know their own personal information?</li> <li>• What personal information should they not share?</li> </ul> <p>De: Search for and</p>	<p>E: Experience different sounds using devices.</p> <ul style="list-style-type: none"> <li>• Toys/ devices that make noise. Get them to listen to them.</li> <li>• Do they recognise the animal noise?</li> </ul> <p>Di: Identify how to make different sounds on devices.</p> <ul style="list-style-type: none"> <li>• Making sounds using devices.</li> </ul> <p>Dev: Describe and recognise icon for programs with sounds</p> <ul style="list-style-type: none"> <li>• Purple mash Music tools 2Explore</li> </ul>	<p>E: Experience sensory aspects of control devices</p> <ul style="list-style-type: none"> <li>• Remote control cars/toys</li> </ul> <p>Di: Identify causing and effect on different control devices, AC devices, toys etc.</p> <ul style="list-style-type: none"> <li>• Toys with switches/but tons</li> <li>• Turning things on and off.</li> </ul> <p>Dev: Follow given instruction verbal or written.</p> <ul style="list-style-type: none"> <li>• Can they follow instructions verbally or written?</li> </ul>	<p>E: Experience being able to say yes to no.</p> <ul style="list-style-type: none"> <li>• Questions about what they like or don't like.</li> </ul> <p>Di: Identify objects to sort.</p> <ul style="list-style-type: none"> <li>• Sort objects with given criteria. Colour, shape</li> </ul> <p>Dev: Describe how to sort a group of objects.</p> <ul style="list-style-type: none"> <li>• Branch diagram</li> </ul> <p>De: Create their own branch diagram to sort objects.</p>	<p>E: Experience the QWERTY keyboard.</p> <ul style="list-style-type: none"> <li>• Use a keyboard to make letters/symbols appear with support?</li> </ul> <p>Di: Identify the QWERTY keyboard</p> <ul style="list-style-type: none"> <li>• Use a keyboard to make letters/symbols appear.</li> </ul> <p>De: Describe how to use the QWERTY keyboard.</p> <ul style="list-style-type: none"> <li>• To use a keyboard to make recognisable words.</li> </ul> <p>D: Create a project on a chosen topic.</p>	<p>E: Experience sensory aspects of movement.</p> <ul style="list-style-type: none"> <li>• Can they move forwards, backwards, side to side or left and right?</li> </ul> <p>Di: Experience using directions to move an object or person.</p> <ul style="list-style-type: none"> <li>• Pupils direct each other around the class.</li> <li>• Use a map on square paper, how many squares to move.</li> </ul> <p>Dev: Identify different directions.</p>

	<p>explain physical features on a map.</p> <ul style="list-style-type: none"> <li>• Can they use a key?</li> </ul> <p>Physical features, nature or man-made.</p>	<p>De: Create their own sequences of sounds.</p> <ul style="list-style-type: none"> <li>• Purple mash Music tools 2sequence.</li> </ul>	<ul style="list-style-type: none"> <li>• Can they follow directions?</li> </ul> <p>De: Create and explain own instructions and algorithms.</p> <ul style="list-style-type: none"> <li>• Create own instructions to make something, eg sandwich, for others to follow.</li> </ul>		<p>Create a written piece on a given topic.</p>	<ul style="list-style-type: none"> <li>• Know Left, Right, North, South, East, West.</li> </ul> <p>De: Create and explain own instructions to make an object or person move.</p> <ul style="list-style-type: none"> <li>• Direction of how to get somewhere.</li> </ul>
<p><b>E-safety</b></p>	<p>E: Experience sensory aspects of what is me and not me</p> <ul style="list-style-type: none"> <li>• What do they look like?</li> </ul> <p>Di: Identify being able to recognise themselves in a picture, family and peers</p> <p>Dev: To be able to Describe their own basic personal information</p> <ul style="list-style-type: none"> <li>• Name and age</li> </ul> <p>De: To identify their own personal information ie. Name, DOB, address</p> <ul style="list-style-type: none"> <li>• To know all the personal details.</li> </ul>					

	Autumn 1 Information Technology	Autumn 2 Digital Literacy & E-Safety	Spring 1 Computer Science Programming	Spring 2 Information Technology	Summer 1 Digital Literacy & E-Safety	Summer 2 Computer Science Programming
Cycle B	<p>E: Experience sensory aspects of using the internet.</p> <ul style="list-style-type: none"> <li>Use Internet to listen to sounds, images etc.</li> </ul> <p>Di: Identify what is on the internet.</p> <ul style="list-style-type: none"> <li>Look at different internet <b>program/</b> games</li> </ul> <p>Dev: Describe how to use the internet.</p> <ul style="list-style-type: none"> <li>Know what icons to look for.</li> </ul> <p>De: Use the internet for a purpose.</p> <ul style="list-style-type: none"> <li>Find information/ images that have been asked for.</li> </ul>	<p>E: Experience different <b>program</b></p> <ul style="list-style-type: none"> <li>Have chance to mark make in <b>programs</b>.</li> </ul> <p>Di: Identify different <b>programs</b></p> <p>Children to Identify <b>program</b> like paint, word etc what can they make them do?</p> <p>Dev: Follow instructions to label given images</p> <ul style="list-style-type: none"> <li>It could be on the computer or not but give the children an image to label.</li> </ul> <p>De: Create a piece of work (written or pictorial) in a chosen <b>program</b>.</p> <ul style="list-style-type: none"> <li>Create a written piece of work or a</li> </ul>	<p>E: Experience playing games.</p> <ul style="list-style-type: none"> <li>Play repetitive games, like simon says.</li> </ul> <p>Di: Identify repeated patterns.</p> <ul style="list-style-type: none"> <li>Show images of repeated patterns.</li> </ul> <p>Dev: Describe a pattern that they can see.</p> <ul style="list-style-type: none"> <li>Show pattern and pupil can describe what the pattern is.</li> </ul> <p>De: Create a pattern with a sequence.</p> <ul style="list-style-type: none"> <li>Create their own patterns and explain what the pattern in.</li> </ul>	<p>E: Experience sensory aspects of answering questions.</p> <ul style="list-style-type: none"> <li>Which is hard which is soft?</li> </ul> <p>Di: Identify how to answer asked questions.</p> <ul style="list-style-type: none"> <li>Take part in surveys.</li> </ul> <p>Dev: Understand how to use a Tally Chart to collect information.</p> <p>De: Create their own survey.</p> <ul style="list-style-type: none"> <li>Use a Tally chart and table.</li> <li>Turn into pictogram.</li> <li>Graph.</li> </ul>	<p>E: Experience devices that take photos.</p> <ul style="list-style-type: none"> <li>Take photos of the children and let them look at them together.</li> </ul> <p>Di: Identify devices that take photos</p> <ul style="list-style-type: none"> <li>Children to take photos on different device, ipad camera etc.</li> </ul> <p>Dev: Take a photograph</p> <ul style="list-style-type: none"> <li>Take photo of a given subjects in focus.</li> </ul> <p>De: Create a sequence of photographs of a chosen topic.</p> <ul style="list-style-type: none"> <li>Take a series of photos on</li> </ul>	<p>E: Experience sensory aspects of Beebots</p> <ul style="list-style-type: none"> <li>Watch Beebots being used and the movements they make and the noises.</li> </ul> <p>Di: Identify Beebots using cause and effect</p> <ul style="list-style-type: none"> <li>Do they know how to make the Beebots move in certain directions?</li> </ul> <p>Dev: <b>Program</b> a given route for a Beebot to follow</p> <ul style="list-style-type: none"> <li>Give the children the instructions to <b>program</b> into the Beebots can</li> </ul>

		picture linked to a topic they have been given.			a given subject.	they follow the instructions? De: Create a journey for a Beebot to follow to reach a given destination. <ul style="list-style-type: none"><li>• Give the children a destination for the Beebots to get to and program it accordingly.</li></ul>
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<h2>E-safety</h2>	<p>E: Experience the sensory aspects of following rules</p> <ul style="list-style-type: none"> <li>• Know some rules and can follow them.</li> </ul> <p>Di: Identify the different online rules for keeping themselves safe on certain websites, with support</p> <ul style="list-style-type: none"> <li>• Go through online rules, what they sound and should do. Digiduck is a good story to read with the children.</li> </ul> <p>De: To develop knowledge of keeping safe and healthy at school and at home.</p> <ul style="list-style-type: none"> <li>• Can identify dangerous things, Identify the classroom/school can they see or find anything dangerous?</li> </ul> <p>D: To identify how to keep safe and healthy beyond the home when using technology</p> <ul style="list-style-type: none"> <li>• Think you know 4-7 has some good videos and games.</li> </ul>		
<h2>Cycle C</h2>	<p>E: Experience device using touch.</p> <ul style="list-style-type: none"> <li>• Can make things move using their finger on an Ipad.</li> </ul> <p>Di: Identify a device using fingers</p> <ul style="list-style-type: none"> <li>• Know how to navigate an Ipad to find the app they want with support.</li> </ul> <p>De: Describe how to find apps and <b>programs</b> on a device using their fingers.</p> <ul style="list-style-type: none"> <li>• Know how to navigate an Ipad to find the app they want.</li> </ul> <p>D: With support can predict what a device is going to do.</p> <ul style="list-style-type: none"> <li>• Purple mash 2go <b>program</b> give the children the direction can they work out where the bee will end up?</li> </ul>	<p>E: Experience using a keyboard.</p> <ul style="list-style-type: none"> <li>• Compare images to words.</li> </ul> <p>Di: Identify how to use a keyboard to make words.</p> <ul style="list-style-type: none"> <li>• Make words, their name etc.</li> </ul> <p>Dev: Use a publishing <b>program</b> to write.</p> <ul style="list-style-type: none"> <li>• Write for a given reason.</li> <li>• Can they change size and colour?</li> </ul> <p>De: Choose a publishing <b>program</b> for a given purpose.</p> <ul style="list-style-type: none"> <li>• Pupils to be shown different publishing <b>programs</b></li> <li>•</li> </ul>	<p>E: Experience different images of a chosen topic.</p> <ul style="list-style-type: none"> <li>• Give the children a set of images can they sort them. Farm yard animal or food with support.</li> </ul> <p>Di: Identify different images of a chosen topic</p> <ul style="list-style-type: none"> <li>• Give the children a set of images can they sort them. Farm yard animal or food.</li> </ul> <p>De: Describe different ways that an image can be edited.</p> <ul style="list-style-type: none"> <li>• Show the children some edited images can they see what has changed?</li> </ul> <p>D: Create edited versions of a given image</p> <ul style="list-style-type: none"> <li>• Give the children an image can they edit it to make it look different.</li> </ul>

<p><b>E-safety</b></p>	<p>E: Experience sensory aspect of being kind with friends and peers.</p> <ul style="list-style-type: none"> <li>• Sharing activities within groups.</li> </ul> <p>Di: Identify the way being kind affects others</p> <ul style="list-style-type: none"> <li>• Show different images, which are kind which are not?</li> </ul> <p>De: Identify the way actions and communications have a direct effect on people around them.</p> <ul style="list-style-type: none"> <li>• Using the same kind and unkind images can they express how that might make those people feel?</li> </ul> <p>D: To explain why it is important to be considerate and kind to people online.</p> <p>Link to people online would you treat them any differently?</p>		
<p><b>Cycle D</b></p>	<p>E: Experience different sounds</p> <ul style="list-style-type: none"> <li>• Experience devices making different sounds.</li> </ul> <p>Di: Identify sounds linked to image</p> <ul style="list-style-type: none"> <li>• Show the children different sounds linked to the same theme.</li> </ul> <p>De: Match sounds to images</p> <ul style="list-style-type: none"> <li>• Can they choose the right image for the sound they can hear?</li> </ul> <p>D: Create sounds to match images.</p> <ul style="list-style-type: none"> <li>• Children to create sounds for the images they can see, could be vocal sounds.</li> </ul>	<p>E: Experience the use of mouse control.</p> <ul style="list-style-type: none"> <li>• Use a mouse to make the cursor move.</li> </ul> <p>Di: Identify the use of mouse control.</p> <ul style="list-style-type: none"> <li>• Can use a mouse to move the cursor and to click on certain things.</li> </ul> <p>De: Can use a mouse to track an object on a screen.</p> <ul style="list-style-type: none"> <li>• Show the children a moving object can they track it?</li> </ul> <p>D: Can use a mouse to move objects on a screen.</p> <ul style="list-style-type: none"> <li>• Using different <b>programs</b> can the children move objects around the screen click and hold to drag.</li> </ul>	<p>E: Experience videoing</p> <ul style="list-style-type: none"> <li>• Video children doing something and let them watch it.</li> </ul> <p>Di: Identify videoing</p> <ul style="list-style-type: none"> <li>• Children to use a device to record.</li> </ul> <p>De: Can use a device to video</p> <ul style="list-style-type: none"> <li>• Children to video each other.</li> </ul> <p>D: Create a video of a chosen topic.</p> <ul style="list-style-type: none"> <li>• Children to create a video on a given topic.</li> </ul>
<p><b>E-safety</b></p>	<p>E: Experience sensory aspect of different ways to communicate with others</p> <ul style="list-style-type: none"> <li>• What ways can people communicate let them try different ways.</li> </ul> <p>Di: Identify different ways to communicate with others</p> <ul style="list-style-type: none"> <li>• List ways to communicate.</li> </ul> <p>De: Identify how different ways of communicating can affect others.</p> <ul style="list-style-type: none"> <li>• Link interactions with other to feelings.</li> </ul> <p>D: To describe ways people can be bullied through a range of media e.g. image, video, text, chat</p> <ul style="list-style-type: none"> <li>• How can children be bullied online?</li> </ul>		

# KS3

	<b>Autumn</b> Computer Science & E-Safety	<b>Spring</b> Information Technology & E-Safety	<b>Summer</b> Digital Literacy & E-Safety
<b>Cycle A</b>	<p>E: Experience sensory aspects of pictorial instructions</p> <ul style="list-style-type: none"> <li>• Able to follow PEC symbols.</li> </ul> <p>Di: Identify the responses after following instructions</p> <ul style="list-style-type: none"> <li>•</li> </ul> <p>De: Follow a set of written/verbalised instructions</p> <ul style="list-style-type: none"> <li>• To create an object following a set of instructions.</li> </ul> <p>D: Create simple <b>programs</b></p> <ul style="list-style-type: none"> <li>• Beebot app on the Ipad</li> </ul>	<p>E: Experience sensory aspects of a paint <b>program</b> (Ipad, PC etc)</p> <ul style="list-style-type: none"> <li>• Mark make using a device.</li> </ul> <p>Di: Identify the different <b>programs</b> and tools with support</p> <ul style="list-style-type: none"> <li>• Create images using different paint tools</li> </ul> <p>De: Identify the different <b>programs</b> and tools</p> <ul style="list-style-type: none"> <li>• Create simple animation</li> </ul> <p>D: Create a piece of work using a paint <b>program</b> on a chosen topic</p> <ul style="list-style-type: none"> <li>• Create animations</li> </ul>	<p>E: Experience different types of search engines</p> <ul style="list-style-type: none"> <li>• Use different search engines to find information.</li> </ul> <p>Di: Identify how to search for a specific topic</p> <ul style="list-style-type: none"> <li>• Look at how to use efficient searches.</li> </ul> <p>De: To be able to check for reliable sources of information</p> <ul style="list-style-type: none"> <li>• Use different websites to check information.</li> </ul> <p>D: To identify different copyright laws around images, music, video etc</p> <ul style="list-style-type: none"> <li>• Look at different copyright laws.</li> </ul>
<b>E-safety</b>	<p>E: Experience the sensory aspects of different social media.</p> <ul style="list-style-type: none"> <li>• To understand what social media is.</li> </ul> <p>Di: Identify social media apps, sites and videos.</p> <ul style="list-style-type: none"> <li>• Write blogs</li> </ul> <p>De: To be able to describe ways to keep themselves safe when using social media</p> <ul style="list-style-type: none"> <li>• Look at privacy settings and security on different social media site.</li> </ul> <p>D: To identify why they need to keep themselves safe when using social media</p> <ul style="list-style-type: none"> <li>• Understand privacy settings and how to report incidents.</li> </ul>		

<p><b>Cycle B</b></p>	<p>E: Experience sensory aspects of programmable toys.</p> <ul style="list-style-type: none"> <li>• Beebot</li> <li>• Ro</li> </ul> <p>Di: Identify programmable toys</p> <p>De: Program a toy to follow a given action</p> <ul style="list-style-type: none"> <li>• Lego</li> </ul> <p>D: Can use logical reasoning to predict a behaviour</p>	<p>E: Experience sensory aspects of writing programs</p> <ul style="list-style-type: none"> <li>• Use different writing programs to write statements.</li> </ul> <p>Di: Identify the different writing programs and the tool menus with support.</p> <ul style="list-style-type: none"> <li>• Use writing programs and tools to change the way the writing looks.</li> </ul> <p>De: Identify the different writing programs and the tool menus</p> <ul style="list-style-type: none"> <li>• Use writing programs and tools to change the way the writing looks.</li> </ul> <p>D: Create and edit a written piece of work on a chosen topic</p>	<p>E: Experience different ways to communicate</p> <p>Di: Identify ways to communicate using the internet safely</p> <p>De: Write, send and receive emails</p> <p>D: Write, send, receive emails with attachments</p>
<p><b>E-Safety</b></p>	<p>E: Experience sensory aspects of asking for help and getting support</p> <p>Di: Identify the different websites that can give you support online</p> <p>De: Finding the different websites that can give you support online e.g. Think you know, CEOPS</p> <p>E: To explain why and when you might need or want to access these websites</p>		
<p><b>Cycle C</b></p>	<p>E: Experience sensory aspects of verbal or non-verbal instructions</p> <p>Di: Identify coding programs with support</p> <ul style="list-style-type: none"> <li>• Purple Mash and Scratch</li> </ul> <p>De: Identify coding programs</p> <ul style="list-style-type: none"> <li>• Purple Mash and Scratch</li> </ul> <p>D: Can de-bug simple program, and explain why</p> <ul style="list-style-type: none"> <li>• Purple Mash and Scratch</li> </ul>	<p>E: To experience communication around different IT equipment.</p> <ul style="list-style-type: none"> <li>• Communicate using IT equipment could be Microphone or pictures.</li> </ul> <p>Di: To enter, save and open work.</p> <ul style="list-style-type: none"> <li>• Return to a saved document</li> </ul> <p>De: To develop their understanding of a range of command keys</p> <ul style="list-style-type: none"> <li>• caps lock, shift</li> </ul> <p>D: To create a project using a variety of different programs.</p> <ul style="list-style-type: none"> <li>• Including word, pics, sounds</li> </ul>	<p>E: Experience different types of apps</p> <p>Di: Identify the different ways apps can be used, with support</p> <p>De: Can fill in information using online apps, i.e. setting up accounts/security settings</p> <p>D: To identify the areas of risk around specific apps</p>

## E-safety

E: Experience sensory aspects of fact or fiction

Di: Identify different areas where information may be false online

De: Describe ways in which people might make themselves look different online

D: Identify who can be trusted to share personal information in real life and online

# KS4

	Autumn Computer Science & E-Safety	Spring Information Technology & E-Safety	Summer Digital Literacy & E-Safety
Cycle A	<p>E: Experience the sensory aspects of a daily routine e.g. now and next</p> <ul style="list-style-type: none"> <li>Follow now and next instructions model building.</li> <li>Purple mash Chimp programs</li> </ul> <p>Di: To be able to identify that programs work by following precise instructions with support.</p> <ul style="list-style-type: none"> <li>Purple mash Gibbon programs</li> <li>Scratch programming</li> </ul> <p>De: To be able to identify that programs work by following precise instructions</p> <ul style="list-style-type: none"> <li>Purple mash Gibbon programs</li> <li>Scratch programming</li> </ul> <p>D: Use logical reasoning to detect errors in programs</p> <ul style="list-style-type: none"> <li>Purple mash Gorilla program</li> <li>Lego programs models</li> </ul>	<p>E: Experience sensory aspects of data collection</p> <p>Di: Identify different types of data that can be collected in the classroom with support</p> <p>De: Collecting and adding data to a spreadsheets</p> <p>D: Collating data and present in different forms i.e. table or graph</p>	<p>E: To experience sensory aspects of different parts of a computer</p> <p>Di: Can name/label the different parts of a computer system</p> <ul style="list-style-type: none"> <li>To understand how search engine work.</li> </ul> <p>De: Begin to understand computing networks including the internet</p> <p>D: To understand the opportunities for communication and collaboration that computer networks offer e.g. security systems, shared drives</p>
Cycle B E-safety, Bullying, Self-	<p>E: To experience how different behaviours make them feel emotions e.g. happy, sad, excited</p> <p>Di: To discover that actions and communication have a direct effect on the people around them in the real world</p> <p>De: Develop their knowledge and understanding of ways that some people can</p>	<p>E: Experience looking at images of themselves and their peers</p> <p>Di: Make choices in real life and that their decisions are to be respected by peers and adult i.e. say no, please stop</p> <p>De: Develop their knowledge and understanding of how other people's identity online can be different from their identity in</p>	<p>E: To be able to know some of their personal information.</p> <p>Di: To know ways to keep their personal information safe online</p> <p>De: To understand what makes a strong password</p> <p>D: To identify security and privacy around apps</p>

<p><b>image, Privacy and security</b></p>	<p>be unkind online D: To describe ways people can be bullied through a range of media</p>	<p>real life D: To explain the term 'identity', how they represent themselves online i.e. avatars, social media and understand the appropriate way to interact with others online</p>	
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**KS5**

	<p><b>Autumn</b> Esafety</p>	<p><b>Spring</b> Computing for skills and study Esafety</p>	<p><b>Summer</b> Computing for social and accessibility - Esafety</p>
<p><b>Cycle A</b> Social media and online bullying</p>	<p>E: Experience being able to make choices, i.e. being able to say yes or no. Di: Identify being able to make choices in real life to keep them safe. De: Describe ways to say no online or real life. D: Explain and demonstrate the risks involved using the internet and social media.</p>	<p>E: Experience the sensory aspects of using computer programmes. Di: Identify ways to keep themselves safe online. De: Describe different way to use the internet to access support D: Explain and demonstrate how to fill in online forms.</p>	<p>E: Experience the sensory aspects of different devices Di: Identify different devices used for social media. De: Describe ways to keep themselves safe online and on social media D: Explain and demonstrate how to use social media appropriately and safely.</p>
<p><b>Cycle B</b> Managing on line information privacy and security</p>	<p>E: Experience ways that adults can help them in the real world. Di: Identify the different aspects of their personal information De: Describe ways to manage personal security settings on a variety of devices. D: Explain and demonstrate how to manage and protect your personal information, privacy and identity online.</p>	<p>E: Experience the sensory aspect of using the internet. Di: Identify ways the internet can be used to find information. De: Describe reliable sources of information online and identify unreliable sources. D: Explain and demonstrate the risk involved around internet usage and how to mitigate those risks.</p>	<p>E: Experience the cause and effect of different devices. Di: Identify different device used for accessibility. De: Describe how to successfully use the internet to aid accessibility. D: Explain and demonstrate how to use a variety of technological device to aid accessibility</p>

**Flightpath**

Engage	Discovery	Develop	Deepen	
Pre entry level 1				
AQA Unit Awards	Entry Level 1	Entry Level 2	Entry Level 3	GCSE (AQA) Double Award

**Impact – How are children achieving in each of the pathways? How do you know, quantitative and qualitative? What actions are you taking as a result of the analysis? How are you ensuring that staff have the subject knowledge to teach your subject?**

Engage	Discovery	Develop	Deepen
<p>Students will have experienced a variety of different technological devices. Students will experience the sensory aspects of different images, videos, sounds as well different devices such as programmable toys. Students will also have experienced different aspects of a daily routine and how different behaviours make them feel. By Post-16 students will have experienced their choices and rights and how adults can help and support them into adulthood.</p>	<p>Students will have explored a variety of different technological devices, such as talkers, ipads, computers etc. Students will also have explored different types of programmable devices and how to input different types of instructions. Students will also have explored different programs on a computer. They will have explored images, video, sounds on different platforms. Students will be able to identify which images are kind and which are not, and have developed an understanding in what is unsafe on the internet. The students will move on to Post-16 and be able to explain what is and isn't a safe choice and how to keep their</p>	<p>Students will be able to use different technological devices for varying functions. Students should be able to give a brief description of the difference between digital literacy, information technology and computer science. Students will have developed the ability to keep themselves safe on line, including bullying and protecting their personal information. They will also be able to Describe how to use the internet to access support, and identify reliable sources of information. Students will have developed the knowledge to be able to move into adulthood with the relevant skills to support them with life skills.</p>	<p>Students will have gained knowledge of e-safety and how to protect themselves on line. They will also be able to tell you how to identify risks and how to report cyber bullying or crime. Students will have experienced a variety of technological devices and will be able to use that knowledge in the real world. Students will be able to define computer science, information technology and digital literacy and will be able to apply these skills in and out of school. Students will be able to communicate which is the best software to use and how to use the internet to find information. Students will be able move on from Newman with the</p>

	personal information safe as they prepare to move into adulthood.		skills to be able to take into adulthood and after school.
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