

## Computing

We want learners to have access to a variety of technological devices and to understand how to use these as computational thinkers. This involves play and exploration, creating, collaborating, perseverance and logical thinking. They will demonstrate enjoyment for digital content as they begin to understand the benefits of technology and how this impacts their lives. Learning will be personalised as consideration for communication technology and personal devices will be included in their daily curriculum, alongside computing.

Within Computing sessions, learners will have the opportunity to develop a wider range of functional skills including (but not limited to): fine motor skills, communication skills, understanding of cause and effect, counting skills, understanding of order and sequence, and following of instructions. For older students, this will support the development of independence skills that will prepare them as they enter adulthood and learn how to use everyday technology such as microwaves, washing machines, online booking systems and online orders, include food shopping.

We want our learners to know the importance of keeping themselves and their personal data safe whilst online. As such, Online Safety and Digital Literacy is delivered twice a year due to their additional vulnerability online.

***Whilst we maintain high expectations and encourage rapid progress in all our learners, we recognise them as individuals who have, or are still overcoming multiple barriers to learning, considering their EHCP outcomes alongside a Personalised Learning Plan, that ensures the progress they make is meaningful and purposeful to their development.***

	STAGE1	STAGE 2	STAGE 3	Extended Learning
<b>ICT in Our Lives</b>	Know a name range of different digital devices <ul style="list-style-type: none"> <li>- TV</li> <li>- Phone</li> <li>- Tablet</li> <li>- Computer/ laptop</li> <li>- Camera</li> </ul> Know how to complete a familiar task <ul style="list-style-type: none"> <li>- Turning a digital device on/ off</li> <li>- Select an app (using touch or EyeGaze technology)</li> </ul>	Begin to know how to use technology purposefully <ul style="list-style-type: none"> <li>- For communication (typing, texting, VOCA, EyeGaze)</li> <li>- For fun (games, TV, videos)</li> <li>- To take a photo/ video</li> </ul> Begin to know how to use the basic parts of a computer <ul style="list-style-type: none"> <li>- Mouse</li> <li>- (Touch)screen</li> <li>- Keyboard</li> </ul> Know that the same content can be accessed on different devices <ul style="list-style-type: none"> <li>- Websites</li> <li>- Apps</li> <li>- Videos</li> </ul>	Know and name a wider range of digital devices and technologies <ul style="list-style-type: none"> <li>- Washing machine</li> <li>- Microwave</li> <li>- Radio</li> <li>- Alexa/ smart device</li> </ul> Know how to use an internet search engine to find information <ul style="list-style-type: none"> <li>- Google</li> </ul> Know how to save and open a document on a computer <ul style="list-style-type: none"> <li>- Word</li> <li>- PowerPoint</li> </ul>	Begin to know how to programme a range of digital devices and technologies <ul style="list-style-type: none"> <li>- Washing machine</li> <li>- Microwave</li> <li>- Radio</li> <li>- Alexa/ smart device</li> </ul> Know that email can be used to communicate with real people  Know how to open and send an email  Know how to copy an image and text from the internet and paste into document

				<p>Know how to use tabbed browsing to open two or more web pages at the same time</p> <p>Begin to know how to store documents using a folder</p>
<b>Key Vocabulary</b>	digital, device, TV, phone, tablet, computer, laptop, camera, on, off, app	communicate, type, game, video, photo, mouse, screen, keyboard, website	technology, washing machine, microwave, radio, smart device, google, internet, search engine, open, save, Word, PowerPoint	Programme, email, send, copy, paste, document, tab, browse, web page, folder, store
<b>Communication: Multimedia</b>	<p>Know that technology can be used to to explore and access a range of digital content</p> <ul style="list-style-type: none"> <li>- Music/ songs</li> <li>- Videos/ streaming</li> <li>- Games</li> </ul> <p>Express likes and dislikes for a variety of digital content</p> <ul style="list-style-type: none"> <li>- Music/ songs</li> <li>- Videos/ streaming</li> <li>- Games</li> </ul> <p>Mark make using an IT paint programme</p> <ul style="list-style-type: none"> <li>- Tablet</li> <li>- Eyegaze</li> <li>- Computer screen</li> </ul>	<p>Know how to operate a digital device with support to fulfil a task</p> <ul style="list-style-type: none"> <li>- Play/ stop music/ songs</li> <li>- Play/ stop videos</li> </ul> <p>Take a photograph/ video</p> <p>Know that information can be recorded using Word</p> <p>Know how to select basic options in a familiar application</p> <ul style="list-style-type: none"> <li>- Colour of pen/ brush/ font</li> <li>- Rewind/ repeat/ pause</li> <li>- Photo/ video</li> </ul>	<p>Begin to know which digital device/ application will be best to complete a specific task</p> <ul style="list-style-type: none"> <li>- Camera = take a photo/ record a video</li> <li>- Computer = writing</li> <li>- Tablet = games/ watching videos</li> </ul> <p>Know how to operate a digital device independently to fulfil a task</p> <ul style="list-style-type: none"> <li>- TV</li> <li>- Phone</li> <li>- Tablet</li> <li>- Computer/ laptop</li> <li>- Camera</li> </ul> <p>Begin to know how to edit digital content</p> <ul style="list-style-type: none"> <li>- Text (font/ size/ colour/ effects)</li> <li>- Photos/ images (smaller/ bigger)</li> </ul>	<p>Know that a class blog can be used to share information</p> <p>Know how to create a presentation that moves from slide to slide, with simple animations</p> <ul style="list-style-type: none"> <li>- Text/ image animation</li> <li>- Sound effects</li> </ul> <p>Know how to download images from a camera and/ or tablet onto a computer</p> <p>Know to copy, cut, paste text and images</p> <p>Know to use photo editing software to crop photos and add effects</p> <p>Begin to know the uses of video, animation and green screen</p>
<b>Key Vocabulary</b>	technology, digital, like, dislike, music, song, video, streaming,	play, stop, take, option, Word, photo(graph), app(lication), font, rewind, repeat, pause	camera, computer, tablet, device, edit, content, text, font, size, colour, bold,	blog, information, presentation, PowerPoint, animation, download, copy, cut, paste, crop, green screen

	game, tablet, EyeGaze, screen, mark		underline, italic, effect, image, design, small, big	
<b>Communication: Data</b>	<p>Begin to know that content comes in different formats</p> <ul style="list-style-type: none"> <li>- Image/ photo</li> <li>- Video</li> <li>- Music/ songs</li> <li>- Games</li> </ul> <p>Express likes and dislikes to choose between media in different formats</p> <ul style="list-style-type: none"> <li>- Image/ photo</li> <li>- Video</li> <li>- Music/ songs</li> <li>- Games</li> </ul>	<p>Know that familiar objects can be sorted into 1 or more categories</p> <p>Begin to know the answer to basic questions about information displayed in images</p> <ul style="list-style-type: none"> <li>- Which is more?</li> <li>- Which less?</li> </ul> <p>Knows the difference between text, image, video and audio content</p> <p>Knows how to collect simple data</p> <ul style="list-style-type: none"> <li>- Eye colour</li> <li>- Likes/ dislikes (food/ colour/ animal)</li> <li>- Pets</li> </ul> <p>Begin to know how present simple data using images</p> <ul style="list-style-type: none"> <li>- Eye colour</li> <li>- Likes/ dislikes (food/ colour/ animal)</li> <li>- Pets</li> </ul>	<p>Know how to present information</p> <ul style="list-style-type: none"> <li>- Pictogram</li> <li>- Tally chart</li> <li>- Bar chart</li> </ul> <p>Begin to know how to use software (Excel) to create a simple bar chart</p> <p>Begin to know what the information in a simple chart tells them</p> <ul style="list-style-type: none"> <li>- Pictogram</li> <li>- Tally chart</li> <li>- Bar chart</li> </ul> <p>Begin to know how to save and retrieve a file</p>	<p>Know how to use software (Excel) to create charts/ graphs</p> <ul style="list-style-type: none"> <li>- Bar chart</li> <li>- Pie chart</li> <li>- Scatter graph</li> </ul> <p>Know and explain the results shown on a graph</p> <p>Know how to save and retrieve a data file</p> <p>Know the vocabulary</p> <ul style="list-style-type: none"> <li>- Cell</li> <li>- Row</li> <li>- Column</li> </ul> <p>Begin to know how to filter a simple database to answer questions</p> <ul style="list-style-type: none"> <li>- A to Z</li> <li>- Z to A</li> <li>- Filter by...</li> </ul>
<b>Key Vocabulary</b>	content, like, dislike, media, image, photo, video, music, song, game	sort, familiar, question, information, more, less, bigger, smaller, audio, collect, data, present	chart, graph, tally, bar, pictogram, software, Microsoft Excel, save, save as, retrieve, file, folder	graph, pie chart, scatter graph, cell, row, column, filter, database
<b>Programming and Algorithms</b>	<p>Know how to explore some simple technology</p> <ul style="list-style-type: none"> <li>- TV</li> <li>- Phone</li> <li>- Tablet</li> <li>- Computer/ laptop</li> </ul>	<p>Know that technology needs controlling/ instructions in order to work</p> <ul style="list-style-type: none"> <li>- Turn on/ off</li> <li>- Sound up/ down</li> <li>- Stop/ start</li> </ul>	<p>Know and order a short sequence of instructions to control a device</p> <ol style="list-style-type: none"> <li>1. Turn computer on</li> <li>2. Log on</li> <li>3. Open Internet Browser</li> </ol>	<p>Know that a computer programme is called an algorithm</p> <p>Know how to correct (debug) an error in a simple algorithm</p> <ul style="list-style-type: none"> <li>- BeeBot</li> </ul>

	<ul style="list-style-type: none"> <li>- Camera</li> </ul> <p>Begin to have knowledge of cause and effect</p> <ul style="list-style-type: none"> <li>- Make something happen (tap an app/ touch a button/ switch)</li> <li>- Expect an outcome from an action (on/ off/ sound/ video)</li> </ul> <p>Be familiar with a routine or set of instructions</p> <ul style="list-style-type: none"> <li>- Dinner time</li> <li>- Getting dressed after swimming</li> <li>- Personal care</li> <li>- Individual timetable</li> </ul>	<p>Begin to know how to control technology for a purpose</p> <ul style="list-style-type: none"> <li>- Turn on/ off</li> <li>- Sound up/ down</li> <li>- Stop/ start</li> </ul> <p>Begin to know that repeating an action will trigger the same response (using logic and anticipation)</p> <ul style="list-style-type: none"> <li>- Turning a digital device on/ off</li> <li>- Select an app (using touch or EyeGaze technology)</li> </ul>	<p>4. Complete Search Engine search</p> <p>Decompose an overall task into constituent tasks and sequence the instructions (getting dressed after swimming)</p> <ol style="list-style-type: none"> <li>1. Put on pants and socks</li> <li>2. Put on vest</li> <li>3. Put on top and bottoms</li> <li>4. Put on shoes</li> </ol> <p>Know how to programme a simple robot/ application</p> <ul style="list-style-type: none"> <li>- BeeBot</li> </ul> <p>Know that order of instructions in a programme is important</p>	<p>Know how to sequence pre-written lines of programming into order</p> <p>Know that there is a link in the use of algorithms to solve problems in D&amp;T</p> <ul style="list-style-type: none"> <li>- Add programming to a lever, wheel, light or buzzer</li> </ul> <p>Know how to evaluate the success of an algorithm or program by collaborating and debugging with a partner</p> <p>Demonstrate perseverance in debugging and collaborating with peers</p>
<p><b>Key Vocabulary</b></p>	<p>technology, cause, effect, touch, tap, button, switch, TV, phone, tablet, computer, laptop, camera, on, off, sound, music, song, video</p>	<p>control, instruction, stop, start, response, anticipate</p>	<p>order, sequence, programme, rob, application, BeeBot, decompose, constituent, instruction, task</p>	<p>algorithm, debug, error, evaluate, perseverance, collaborate</p>
<p><b>Online Safety and Digital Literacy</b></p>	<p>Know how to explore and have controlled access to digital content</p> <p>Express likes and dislikes on what they watch or listen to on a familiar web page</p> <ul style="list-style-type: none"> <li>- Songs/ music</li> <li>- Videos</li> <li>- Stories</li> </ul>	<p>Begin to know that some online content is not child- friendly</p> <p>Know to tell an appropriate adult about anything they see that upsets them</p> <ul style="list-style-type: none"> <li>- Teacher</li> <li>- Family member</li> </ul> <p>Know what makes a good friend</p> <ul style="list-style-type: none"> <li>- Kind</li> <li>- Helpful</li> <li>- Sharing</li> </ul>	<p>Know some types of inappropriate content</p> <ul style="list-style-type: none"> <li>- Scary images/ videos</li> <li>- Swearing</li> </ul> <p>Know who to tell if concerned about content or contact online</p> <ul style="list-style-type: none"> <li>- Teacher</li> <li>- Family member</li> <li>- Police</li> </ul> <p>Begin to know that information shared online can be made public or private</p>	<p>Know that spending a long time in front of a computer screen can be unhealthy</p> <p>Know that when we share content online, we might not be able to delete it</p> <p>Know that digital content belongs to person who posted it</p> <ul style="list-style-type: none"> <li>- They need to ask permission to use another person's content</li> </ul>

			<p>Know that you can share digital content online</p> <ul style="list-style-type: none"> <li>- Personal information</li> <li>- Photos</li> <li>- Videos</li> </ul> <p>Know what personal information is and the need to keep it private</p> <p>Know why passwords are used and that they should be kept private</p> <p>Know that what makes a good online friend is the same as in the 'real world'</p> <p>Begin to know that not all information found online is true</p>	<ul style="list-style-type: none"> <li>- Other people need to ask permission to use their content</li> </ul> <p>Know that they should only open/ use content that they know</p> <ul style="list-style-type: none"> <li>- Do not click on 'pop ups'</li> <li>- Do not open emails/ messages/ links/ attachments from people they don't know</li> </ul> <p>Begin to know that some adults will try to get personal information from them to scam them, and that this should be kept private</p> <ul style="list-style-type: none"> <li>- Full name</li> <li>- Date of birth</li> <li>- Address</li> <li>- Passwords</li> <li>- Any bank information</li> </ul> <p>Know that they must be respectful in any comment they post online and that cyber-bullying is unacceptable (like real world bullying)</p> <p>Know what to do if they find an unsuitable image or video</p> <ul style="list-style-type: none"> <li>- Report to a teacher/ family member/ police</li> </ul> <p>Know that it is unsafe to arrange to meet unknown people online</p>
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<b>Key Vocabulary</b>	explore, like, dislike, webpage, song, music, video, story	child-friendly, appropriate, tell, upset, good friend, kind, helpful, share	inappropriate, scared, sad, concerned, public, private, personal information, password, real world, online, true, false, lie	delete, healthy, unhealthy, screen time, permission, scam, pop up, link, attachment, respect, cyberbullying, bullying, acceptable, unacceptable, report, safe, unsafe
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