



## Computing Progression Map

### Intent

Beverley's Computing curriculum offers a coherently planned sequence of lessons to help teachers ensure they have progressively covered the skills and concepts required in the National Curriculum. Computing intends to prepare each student for their next phase of education whilst at the same time giving all students broad and balanced experience of different computing skills and their real-life applications. Students will develop a well-rounded knowledge of ICT and Computing as well as purpose and application in the real world. The computing concepts are: developing an understanding of instructions, logic and sequences, developing an understanding of how to safely connect with others, using apps to communicate one's ideas and developing an understanding of databases and their use. For EYFS we have designed a curriculum that allows for exploration of ICT skills and to develop their understanding of the world around them. For those students above Milestone 3 they will follow the appropriate National Curriculum or accreditation routes.

### Implementation

At Beverley we teach Computing through half termly or termly Key Stage projects as well as stand-alone skill lessons. Through Project Based Learning (PBL), we aim for our students to develop real life links through various projects that our students can make connections and reference to. By using this enquiry-based approach, PBL encourages active enquiry to engage and enthuse our students about applying their computing knowledge for practical and inventive purposes as well as developing new skills to solve problems or to extend their understanding. Through revisiting and consolidating skills, our lesson plans and resources help children build on and generalise prior knowledge alongside introducing new skills and challenge. The revision and inclusion of key vocabulary is built into each lesson to ensure that students are allowed opportunities to repeat and revise this knowledge.

### Impact

Beverley Students are happy, engaged and active enquirers in learning activities. They are developing their computing skills, knowledge and understanding. They are also developing independence to manage themselves (physically and emotionally) and be more able to express themselves through their preferred method of communication. They are knowledgeable about a wide range of technology and are comfortable discussing its value and merits. They will be able to deploy appropriate knowledge in a given situation, including online safety, online applications, use of email,

social network platforms, use of technology and so on. Our students will achieve progress through National Curriculum objectives, Beverley Steps, Accreditation outcomes and EHCP outcomes.

### Level Expected at the End of EYFS

We have selected the most relevant statements from the Development Matters age ranges for 0 -3 and 3 – 4 years olds as well as highlighting the statements within the ELGs which feed into the programme of study for History.

<b>Computing</b>		
<b>0 - 3</b>	Understanding the World	<ul style="list-style-type: none"> <li>• I can repeat actions that have an effect.</li> </ul>
<b>3 – 4</b>	Understanding the World	<ul style="list-style-type: none"> <li>• I can use all my senses in hands-on exploration</li> <li>• I can talk/communicate about what I see, using a wide vocabulary.</li> <li>• I can explore how things work.</li> <li>• I can explore and talk about different forces I can feel.</li> </ul>
<b>Reception</b>	Understanding the World	<ul style="list-style-type: none"> <li>• I can explore the ‘digital’ world around me.</li> <li>• I can describe what I see, hear and feel.</li> </ul>
<b>ELG</b>	Understanding the World	<ul style="list-style-type: none"> <li>• I can explore the ‘digital’ world around me, making observations.</li> </ul>

The following curriculum progression map comprehensively shows the progression of computing skills and concepts from Pre Milestone 1 – Milestone 3. Suggested learning objectives have been taken from Milestones, Twinkl Whole school computing progression or a quality assured resource created by eLIM (e Learning and Information Management Service), Somerset County Council. For those students above Milestone 3 they will follow the appropriate National Curriculum/ Accreditation routes.

Accreditation routes are in parentheses eg. (Entry Level 1 – Entry Level 2).

<b>DEVELOPING AN UNDERSTANDING OF INSTRUCTIONS, LOGIC AND SEQUENCE</b>	<b>Pre Milestone 1</b> Beverley Steps P4 – 5 (Working Towards Entry Level)	<b>Pre Milestone 2</b> Beverley Steps P6 – 7 (Working Towards Entry Level)	<b>Pre Milestone 3</b> Beverley Steps P8-9 (Working Towards Entry Level – Entry Level 1)
	<ul style="list-style-type: none"> <li>• I can make a selection to <i>produce</i> a preferred sound / image.</li> <li>• I can predict the result of an action.</li> <li>• I can anticipate actions in a sequence.</li> <li>• I can anticipate certain actions producing predictable results.</li> <li>• I can produce a predictable result(s).</li> <li>• I can demonstrate I have emerging awareness of how ICT can be used to control the environment.</li> <li>• I can choose an appropriate switch to achieve a known outcome on screen or device by selecting appropriate control switch.</li> <li>• I can use ICT to control an object or event.</li> <li>• I can demonstrate that I have an emerging awareness of how ICT can / can be used to control my environment.</li> <li>• I can choose appropriate switch or control to produce a known result.</li> <li>• I can intentionally communicate meaning by selecting images/objects from a screen/whiteboard.</li> <li>• I can use a device to manipulate an item on a screen.</li> <li>• I can track movement across a screen.</li> <li>• I can move / move objects on a screen.</li> <li>• I can attempt to make one to one correspondence between activities.</li> <li>• I can understand the connection between action and result.</li> <li>• I can make connections between control device and information on screen.</li> <li>• I can link symbols/ characters to communicate meaning.</li> </ul>	<ul style="list-style-type: none"> <li>• I can understand that information can be stored on a computer.</li> <li>• I can respond to simple instructions to control a device.</li> <li>• I can sequence an event on screen.</li> <li>• I have experienced several control devices.</li> <li>• I can operate some devices independently.</li> <li>• I can control an ICT device independently.</li> </ul>	<ul style="list-style-type: none"> <li>• I can control a battery-operated toy.</li> <li>• I can make a floor robot move.</li> <li>• I can use simple software to make something happen.</li> <li>• I can make choices about the buttons and icons I press, touch or click on.</li> </ul>

<b>Milestone 1</b> Beverley Steps P10 – 11 Year 1 – 2 (Entry Level 2-Entry Level 3)	<b>Milestone 2</b> Beverley Steps P12 – 13 Year 3 – 4 (Level 1 Emerging – Level 1 Developing)	<b>Milestone 3</b> Beverley Steps P14 -15 Year 5 – 6 (Level 1 Secure- Level 2 Emerging)	<b>Milestone 4</b> Beverley Steps 16+ Year 7+ (Level 2 Developing- GCSE 4+)
<ul style="list-style-type: none"> <li>• I can give instructions one at a time to control direction and movement, including straight, forwards, backwards, turns.</li> <li>• I can give a set of instructions to follow</li> <li>• I can predict what will happen when given / writing a set of instructions.</li> <li>• I can improve/change a sequence of instructions by debugging;</li> <li>• I can control movement by specifying the number of steps to travel, direction and / or turns.</li> <li>• I can add text strings / show and hide objects / change the features of an object.</li> <li>• I can select and / or control sounds (specify control - when they are heard / their duration / volume)</li> <li>• I can control when drawings appear / disappear / reappear</li> <li>• I can set the pen colour, size and shape for drawings</li> <li>• I can set user inputs (such as clicks) to control events.</li> <li>• I can create simple conditions for actions by waiting for a user input (such as responses to questions like: What is your name?).</li> <li>• I can control the nature of events using ... (specify repeat, loops,</li> </ul>	<ul style="list-style-type: none"> <li>• I can write a program, putting commands into a sequence to achieve a specific outcome (using a variety of programs/ equipment)</li> <li>• I can read a set of given instructions to follow and predict what will happen;</li> <li>• I can control the appearance of objects / sprites</li> <li>• I can create a series of changes to change the appearance of objects / sprites</li> <li>• I can create and edit sounds.</li> <li>• I can control when edited sounds are heard, their volume, duration and rests.</li> <li>• I can specify conditions to trigger events user inputs such as, but not limited to green flags, clicks etc).</li> <li>• I can use IF THEN conditions to control events or objects.</li> <li>• I can create conditions for actions by sensing proximity or by waiting for a user input (such as proximity to a specified colour or a line or responses to questions).</li> <li>• I can use variables to store a value;</li> <li>• I can use the functions to define, set, change, show and hide to control the variables.</li> <li>• I can use the Reporter operators to perform calculations</li> </ul>	<ul style="list-style-type: none"> <li>• I can decompose a problem into smaller parts to design an algorithm for a specific outcome and use this to write a program</li> <li>• I can refine a procedure using repeat commands to improve a program.</li> <li>• I can use a variable to increase programming possibilities.</li> <li>• I can change an input to a program to achieve a different output.</li> <li>• I can use 'if' and 'then' commands to select an action.</li> <li>• I can talk about how a computer model can provide information about a physical system.</li> <li>• I can use logical reasoning to detect and debug mistakes in a program.</li> <li>• I use logical thinking, imagination and creativity to extend a program.</li> <li>• I can deconstruct a problem into smaller steps, recognising similarities to solutions used before.</li> <li>• I can explain and program each of the steps in my algorithm.</li> <li>• I can evaluate the effectiveness and efficiency of my algorithm while I continually test the programming of that algorithm.</li> <li>• I can recognise when I need to use a variable to achieve a required output.</li> </ul>	<ul style="list-style-type: none"> <li>• I can use pseudocode to properly design an algorithm.</li> <li>• I can solve problems and design an algorithm to perform a:             <ul style="list-style-type: none"> <li>○ Linear search</li> <li>○ Binary Search</li> <li>○ Bubble Sort</li> <li>○ Insertion Sort</li> <li>○ Merge Sort</li> </ul> </li> <li>• I can analyze and evaluate different solutions for efficiency.</li> <li>• I can use basic programming constructs: Sequence, Selection and Iteration.</li> <li>• I understand different variable and data types.</li> <li>• I can perform string manipulation.</li> <li>• I can use functions and procedures.</li> <li>• I understand random number generation in programming and the mathematical concept of probability theory.</li> <li>• I understand file handling, reading and writing.</li> <li>• I understand different data structures such as arrays.</li> <li>• I can produce robust programs.</li> </ul>

	<p>single events and add and delete features)</p> <ul style="list-style-type: none"> <li>I can use key vocabulary to demonstrate knowledge and understanding in this strand: algorithm, instruction, order, debug, program, turn, left, right, clockwise, anticlockwise, blocks, sequence, project, repeat, repeat forever, invisible, grow, shrink.</li> </ul>	<p>() + ()    () - ()    () * ()    () / ()</p> <ul style="list-style-type: none"> <li>I can use logical thinking to solve an open-ended problem by breaking it up into smaller parts</li> <li>I can keep testing a program and recognise when it needs to be debugged;</li> <li>I can use variables to create an effect, e.g. repetition, if, when, loop;</li> <li>I can use key vocabulary to demonstrate knowledge and understanding in this strand: decompose, decomposing, logical sequence, flowchart, sprite, block, command, algorithm, answer, correct, errors, program, algorithm, instructions, commands, forward (fd), left (lt), right (rt), move, turn, clear screen (cs), variable</li> </ul>	<ul style="list-style-type: none"> <li>I can use a variable and operators to stop a program.</li> <li>I can use different inputs (including sensors) to control a device or onscreen action and predict what will happen.</li> <li>I can use logical reasoning to detect and correct errors in a algorithms and programs.</li> <li>I can use external triggers and infinite loops to demonstrate control;</li> <li>I can follow a sequence of instructions, e.g. in a flowchart and modify a flowchart using symbols;</li> <li>I can use conditional statements and edit variables</li> <li>I can change the position of objects between screen layers (send to back, bring to front).</li> <li>I can upload sounds from a file and edit them.</li> <li>I can add effects to sounds such as fade in and out and control their implementation.</li> <li>I can combine the use of pens with movement to create interesting effects.</li> <li>I can set events to control other events by 'broadcasting' information as a trigger.</li> <li>I can use IF THEN ELSE conditions to control events or objects.</li> <li>I can use a range of sensing tools (including proximity, user inputs, loudness and mouse position) to control events or actions.</li> </ul>	
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			<ul style="list-style-type: none"> <li>• I can use lists to create a set of variables.</li> <li>• I can use the Boolean operators to define conditions.  () &lt; ()    () = ()    () &gt; ()    () and()  () or()    Not()</li> <li>• I can use the Reporter operators to perform calculations.  () + ()    () - ()    () * ()    () / ()  Pick Random () to ()    Join () ()    Letter ()  of ()    Length of ()    () Mod () This reports the remainder after a division calculation    Round ()    () of ().</li> <li>• I can use key vocabulary to demonstrate knowledge and understanding in this strand:  flowchart, algorithm, control, output, symbol, start, stop, delay, process, decision, loop, backdrop, script, block, repeat, commentary, sequence, consequence, debug, program, Kodu, world, object, tool palette, program environment, smooth, flatten, raise.</li> </ul>	
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DEVELOPING AN UNDERSTANDING OF HOW TO SAFELY CONNECT WITH OTHERS	<b>Pre Milestone 1</b> Beverley Steps P4 – 5 (Working Towards Entry Level)	<b>Pre Milestone 2</b> Beverley Steps P6 – 7 (Working Towards Entry Level)	<b>Pre Milestone 3</b> Beverley Steps P8-9 (Working Towards Entry Level – Entry Level 1)	
		<ul style="list-style-type: none"> <li>I can experience an online activity with an adult</li> </ul>	<ul style="list-style-type: none"> <li>I can share online activities with an adult</li> <li>I can communicate to an adult about things I like and don't like online</li> <li>I know what to do if I see something I don't like online</li> <li>I can communicate to an adult about projects I have worked on</li> </ul>	
	<b>Milestone 1</b> Beverley Steps P10 – 11 Year 1 – 2 (Entry Level 2-Entry Level 3)	<b>Milestone 2</b> Beverley Steps P12 – 13 Year 3 – 4 (Level 1 Emerging – Level 1 Developing)	<b>Milestone 3</b> Beverley Steps P14 -15 Year 5 – 6 (Level 1 Secure- Level 2 Emerging)	<b>Milestone 4</b> Beverley Steps 16+ Year 7+ (Level 2 Developing- GCSE 4+)
	<p><u>Privacy</u></p> <ul style="list-style-type: none"> <li>* I can keep my password private.</li> <li>* I can tell you what personal information is.</li> <li>*I can explain why I need to keep my password and personal information private.</li> </ul> <p><u>Online Communication</u></p> <ul style="list-style-type: none"> <li>• I can talk about why it's important to be kind and polite.</li> <li>* I can talk about why it is important to be kind and polite online and in real life.</li> <li>*I know that not everyone is who they say they are on the Internet.</li> <li>* I can participate in class social media accounts.</li> </ul> <p><u>Safe use of technological devices</u></p> <ul style="list-style-type: none"> <li>• I can tell an adult when I see something unexpected or worrying online.</li> </ul>	<p><u>Privacy</u></p> <ul style="list-style-type: none"> <li>• I can talk about what makes a secure password and why they are important.</li> <li>• I can protect my personal information when I do different things online.</li> <li>• I choose a secure password when I am using a website</li> </ul> <p><u>Online Communication</u></p> <ul style="list-style-type: none"> <li>• I can post positive comments online.</li> <li>• I can contribute to blogs that are moderated by teachers.</li> <li>• I can give examples of the risks posed by online communications.</li> </ul>	<p><u>Privacy</u></p> <ul style="list-style-type: none"> <li>• I protect my password and other personal information</li> <li>• I can explain the consequences of sharing too much about myself online.</li> </ul> <p><u>Online Communication</u></p> <ul style="list-style-type: none"> <li>• I know that anything I post online can be seen, used and may affect others.</li> <li>• I can explain the importance of communicating kindly and respectfully.</li> <li>• I can collaborate with others online on sites approved and moderated by teachers.</li> <li>• I can give examples of the risks of online communities and demonstrate knowledge of how to minimise risk and report problems.</li> </ul>	<ul style="list-style-type: none"> <li>• I can take appropriate steps to avoid risks when working with collaborative technology, in line with relevant guidelines.</li> <li>• I can use appropriate methods to promote trust when working collaboratively.</li> <li>• I can carry out appropriate checks on others' online identities and different types of information.</li> <li>• I can identify and respond to inappropriate content and behaviour.</li> <li>• I can describe the purposes for using collaborative technologies.</li> <li>• I can describe what access rights and issues other people might have in using collaborative technologies.</li> </ul>

	<p>*I can describe the things that happen online that I must tell an adult about.</p> <ul style="list-style-type: none"> <li>• I can talk about why I should go online for a short amount of time.</li> <li>• I can understand online risks and the age rules for sites</li> <li>• I can recognise an age appropriate website.</li> <li>• I can agree and follow sensible e-Safety rules.</li> </ul>	<ul style="list-style-type: none"> <li>• I understand that comments made online that are hurtful or offensive are the same as bullying.</li> <li>• I comment positively and respectfully online</li> <li>• I know that anything I post online can be seen by others.</li> </ul> <p><u>Safe use of technological devices</u></p> <ul style="list-style-type: none"> <li>• I can use the safety features of websites as well as reporting concerns to an adult.</li> <li>• I can recognise websites and games appropriate for my age.</li> <li>• I can make good choices about how long I spend online.</li> <li>• I ask an adult before downloading files and games from the Internet.</li> <li>• I can help my friends make good choices about the time they spend online.</li> <li>• I choose websites and games that are appropriate for my age</li> <li>• I can talk about why I need to ask a trusted adult before downloading files and games from the Internet</li> <li>• I use the safety features of websites as well as reporting concerns to an adult.</li> <li>• I can talk about the ways I can protect myself and my friends from harm online.</li> </ul>	<ul style="list-style-type: none"> <li>• I can explain the consequences to myself and others of not communicating kindly and respectfully.</li> <li>• I understand the effect of online comments and show responsibility and sensitivity when online.</li> </ul> <p><u>Safe use of technological devices</u></p> <ul style="list-style-type: none"> <li>• I can explain why I need to protect myself and my friends and the best ways to do this, including reporting concerns to an adult.</li> <li>• I can talk about the dangers of spending too long online or playing a game.</li> <li>• I can discuss the importance of choosing an age-appropriate website or game.</li> <li>• I can explain why I need to protect my computer or device from harm.</li> <li>• I know which resources on the Internet I can download and use.</li> <li>• I support my friends to protect themselves and make good choices online, including reporting concerns to an adult.</li> <li>• I can explain the consequences of spending too much time online or on a game.</li> <li>• I protect my computer or device from harm on the Internet.</li> <li>• I understand and demonstrate knowledge that it is illegal to download copyrighted material, including music or games, without express written permission, from the copyright holder.</li> <li>• I understand how simple networks are set up and used.</li> </ul>	<ul style="list-style-type: none"> <li>• I can select and join networks and data feeds to manage data to suit collaborative tasks.</li> </ul>
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<p style="text-align: center;"><b>Pre Milestone 1</b> Beverley Steps P4 – 5 (Working Towards Entry Level)</p>	<p style="text-align: center;"><b>Pre Milestone 2</b> Beverley Steps P6 – 7 (Working Towards Entry Level)</p>	<p style="text-align: center;"><b>Pre Milestone 3</b> Beverley Steps P8-9 (Working Towards Entry Level – Entry Level 1)</p>
<ul style="list-style-type: none"> <li>• I can select to produce a preferred image.</li> <li>• I can anticipate certain actions producing predictable results.</li> <li>• I can choose an appropriate switch to achieve a known outcome on screen or device</li> <li>• I can use ICT to control an object or event.</li> <li>• I can demonstrate that I have an emerging awareness of how ICT can control my environment.</li> <li>• I can produce predictable results.</li> <li>• I can choose appropriate switch or control to produce a known result.</li> <li>• I can intentionally communicate meaning by selecting images/objects from a screen/whiteboard</li> <li>• I can use a device to manipulate an item on a screen.</li> <li>• I can track movement across a screen.</li> <li>• I can move/match/look for objects on a screen.</li> <li>• I can attempt to make one to one correspondence between activities.</li> <li>• I can understand the connection between action and result.</li> <li>• I can make connections between control device and information on screen.</li> <li>• I can select images as they appear on the screen.</li> <li>• I can use a joystick/mouse/IWB to produce effects on the screen.</li> <li>• I can use a touch screen.</li> <li>• I can pick out / match symbols or characters.</li> <li>• I can operate a computer programme to play a matching game.</li> <li>• With support I can use a joystick/mouse/IWB to match images.</li> <li>• I can make connections between devices and information on screen.</li> <li>• I can link symbols/ characters to communicate meaning.</li> </ul>	<ul style="list-style-type: none"> <li>• I can use ICT to interact with other people.</li> <li>• I can share an activity with another person.</li> <li>• I can select letters for my name.</li> <li>• I can select images for my name.</li> <li>• I can understand that information can be stored on a computer.</li> <li>• I can request to see a previously saved item.</li> <li>• I can respond to simple instructions to control a device.</li> <li>• I can sequence a simple event on screen.</li> <li>• I have experienced several control devices.</li> <li>• I can operate some devices independently.</li> <li>• I can retrieve saved work, with help.</li> <li>• I can control an ICT device independently.</li> <li>• I can use ICT to select and group objects, letters or images.</li> <li>• I can use ICT to match text to images.</li> <li>• With help I can save my work.</li> <li>• With help I can print out my work.</li> <li>• I can playback a recorded sound.</li> <li>• I can gather information from different sources.</li> <li>• I can recognise that images on a monitor can represent reality.</li> <li>• I can indicate a preference for a form of access to technology.</li> <li>• I can choose suitable software for familiar activities.</li> <li>• I can choose suitable equipment for familiar activities.</li> <li>• I can select a program from icons.</li> <li>• I can respond to simple visual screen prompts.</li> <li>• I am familiar with the QWERTY keyboard.</li> <li>• I can use pictures or symbols to record information about myself or others.</li> <li>• I can use suitable resources to undertake a given activity with help.</li> </ul>	<ul style="list-style-type: none"> <li>• I can manipulate software devices.</li> <li>• I can use ICT to present my ideas.</li> <li>• I can identify when I used ICT.</li> <li>• I can present ideas using ICT.</li> <li>• I can record information.</li> <li>• I can select and start an item.</li> <li>• I can take pictures of my work.</li> <li>• I can use appropriate software for a task.</li> <li>• I can use ICT to present my ideas.</li> <li>• I can manipulate software.</li> <li>• I can manipulate ICT devices.</li> <li>• I can identify when I need ICT.</li> </ul>

		<ul style="list-style-type: none"> <li>I can choose appropriate equipment to complete a task with help.</li> </ul>	
<p><b>Milestone 1</b> Beverley Steps P10 – 11 Year 1 – 2 (Entry Level 2-Entry Level 3)</p>	<p><b>Milestone 2</b> Beverley Steps P12 – 13 Year 3 – 4 (Level 1 Emerging – Level 1 Developing)</p>	<p><b>Milestone 3</b> Beverley Steps P14 -15 Year 5 – 6 (Level 1 Secure- Level 2 Emerging)</p>	<p><b>Milestone 4</b> Beverley Steps 16+ Year 7+ (Level 2 Developing- GCSE 4+)</p>
<ul style="list-style-type: none"> <li>I can use a range of applications and devices in order to communicate ideas, work and messages.</li> </ul> <p><u>General</u></p> <ul style="list-style-type: none"> <li>I can save, retrieve and organise work</li> <li>I can be creative with different technology tools.</li> <li>I can use technology to create and present my ideas.</li> <li>I can use the keyboard on my device to add, delete and space text for others to read.</li> <li>Use a range of applications and devices in order to communicate ideas, work and messages.</li> <li>I can use technology to organise and present my ideas in different ways.</li> <li>I can tell you about an online tool that will help me to share my ideas with other people.</li> </ul> <p><u>Multimedia Text and Images</u></p> <ul style="list-style-type: none"> <li>I can use the keyboard or a word bank on my device to enter text.</li> <li>I can add text strings, text boxes and show and hide objects and images, manipulating the features;</li> </ul>	<ul style="list-style-type: none"> <li>I can use some of the advanced features of applications and devices in order to communicate ideas, work or messages professionally.</li> <li>I can select appropriate software to: <ul style="list-style-type: none"> <li>*store information</li> <li>*use simple searches to find information from web-based sources and from stored information</li> <li>*enter and develop text, graphics, numbers</li> <li>*bring together different types of information</li> <li>*print out information</li> <li>*read, send and receive electronic messages and use contacts</li> </ul> </li> <li>I can use a range of ICT-based communication systems. For example: a text message, an email message, a voice mail, instant messaging (IM), a message on a virtual learning environment (VLE) or internet (social networking site).</li> <li>I can navigate to my messages to open, read or listen to them.</li> </ul>	<ul style="list-style-type: none"> <li>I can choose the most suitable applications and devices for the purposes of communication.</li> <li>I can use many of the advanced features in order to create high quality, professional or efficient communications.</li> <li>I can select appropriate software to: <ul style="list-style-type: none"> <li>*manage information storage</li> <li>*use search techniques to locate information from web-based sources and from stored information</li> <li>*enter, develop and refine text, tables, graphics, records, numbers, charts, graph</li> <li>*process numerical data</li> <li>*display numerical data in a graphical format</li> <li>*use field names and data types to organise information</li> <li>*enter, search, sort and edit records</li> <li>*read, send and receive electronic messages with attachments</li> <li>*combine information within a publication</li> <li>*print out publications, spreadsheets (data and formulas), records and screen dumps.</li> </ul> </li> </ul>	<p>I can select:</p> <ul style="list-style-type: none"> <li>- a single data set required for charting,</li> <li>- a comparative data set</li> <li>- select a subset of data</li> <li>- data set from non-adjacent columns/rows</li> </ul> <p>-and create charts and graphs – pie chart, bar chart, single line graph, comparative bar chart, multiple line graph, scatter graph</p> <p>I can display the chart/graph appropriately: - enter appropriate titles (chart title, axis titles) - make sure axis labels are appropriate - add / edit / remove chart legend as appropriate</p> <p>I can: - print chart produced on a separate page - print chart produced with spreadsheet data - set page orientation as appropriate - create headers and footers</p> <p>I can combine information within a specified publication: - letter - flyer - newsletter - information sheet - invitation - email - poster - multi-media presentation - leaflet - report</p> <p>I am familiar with the publication types and know the purpose of each and layouts appropriate to each.</p>

<ul style="list-style-type: none"> <li>I can use various tools, such as brushes, pens, eraser, stamps and shapes, and set the size, colour and shape;</li> <li>I can use applications and devices in order to communicate ideas, work, messages and demonstrate control;</li> <li>I can use use key vocabulary to demonstrate knowledge and understanding in this strand: paint, colour, brush, tools, settings, undo, redo, text, image, size, poster, launch, application, software, window, minimise, restore, size, move, screen, close, click, drag, log on, log off, keyboards, keys, mouse, click, button, double click, drag, present</li> </ul> <p><u>Multimedia Sound and Motion</u></p> <ul style="list-style-type: none"> <li>I can use software to record sounds;</li> <li>I can change sounds recorded;</li> <li>I can use key vocabulary to demonstrate knowledge and understanding in this strand: commands, add sound.</li> </ul> <p><u>Using the internet</u></p> <p>I can recognise ways that technology is used in the home and community, e.g. taking photos, blogs, shopping;</p> <p>I can use links to websites to find information;</p> <p>I can recognise age-appropriate websites;</p> <p>I can use safe search filters;</p> <p>I can use key vocabulary to demonstrate knowledge and understanding in this strand: filter, Google, search engine, image, keyboard, email, internet,</p>	<ul style="list-style-type: none"> <li>I can acknowledge the contents of a message in some way (e.g. by replying to the message or carrying out an action in response to it).</li> <li>I can retrieve and use contacts' details.</li> <li>I can respect other people's personal information when using ICT-based communication.</li> </ul> <p><u>General</u></p> <ul style="list-style-type: none"> <li>Use some of the advanced features of applications and devices in order to communicate ideas, work or messages professionally.</li> </ul> <p><u>Multimedia Text and Images</u></p> <ul style="list-style-type: none"> <li>I can create different effects with different technological tools, demonstrating control;</li> <li>I can use appropriate keyboard commands to amend text on a device;</li> <li>I can use applications and devices in order to communicate ideas, work, and messages;</li> <li>I can save, retrieve and evaluate work, making amendments;</li> <li>I can insert a picture/text/graph/hyperlink from the internet or a personal file;</li> <li>I can use key vocabulary to demonstrate knowledge and understanding in this strand: draw, object, shape, line, line colour, fill colour, group, ungroup, font, size, text box, format, image, wrap text, plan, link, image, object, link, hyperlink, minimise, restore, size,</li> </ul>	<ul style="list-style-type: none"> <li>I can use email to: <ul style="list-style-type: none"> <li>*navigate to their email messages</li> <li>*open and read email messages</li> <li>*create email messages</li> <li>*reply to email messages</li> <li>*send email messages</li> <li>*attach file(s) to email messages</li> <li>*address email messages accurately</li> </ul> </li> </ul> <p>Learners must be able to combine information within a specified publication: - letter - flyer - newsletter - information sheet - invitation - email - poster - presentation slides</p> <ul style="list-style-type: none"> <li>Learners must be familiar with the publication types and must know the purpose of each and layouts appropriate to each.</li> <li>Learners must know standard information required in: - a letter (date of letter, sender's address, receiver's address, salutation and complimentary close) - an email (receiver's address, cc, subject of email)</li> </ul> <p>Learners must be able to work with text: - insert, delete, drag and drop, copy and paste - format text (font, style, size), - use paragraph alignment (left, right, centre, fully justified)</p> <p>Learners must be able to use simple tables appropriately to display information. They must be able to: - create a table defining the correct number of rows and columns required - edit tables – delete, insert rows and columns, adjust column width to suit information - align information within a table (left, right, centre) - add/remove cell borders</p>	<p>I know standard information required in: - a letter (date of letter, sender's address, receiver's address, salutation, complimentary close) - an email (receiver's address, cc, bcc, subject of email)</p> <p>Learners must be able to work with text: - insert, delete, drag and drop, copy and paste - format text (font, style, size), - use paragraph alignment (left, right, centre, fully justified) - insert and position text boxes</p> <p>Learners must be able to use tables to display information. They must be able to: - create a table defining the correct number of rows and columns required - edit tables – delete, insert rows and columns, adjust column width to suit information - align information within a table (left, right, centre) - add/remove cell borders - align information vertically within table cells - merge and split cells as required - use shading in cells as required - align a table within a publication (left, right or centre)</p> <p>Learners must be able to work with graphics: - insert, delete, position, drag and drop and copy and paste images - align images (left, right, centre) - size images as appropriate - crop images as appropriate - border images as appropriate - draw objects - fill objects - outline objects - group objects - use text wrapping as appropriate - place graphics behind or in front of text - resize grouped graphics</p>
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	<p>subject, address, communicate, sender, safe, secure</p>	<p>move, screen, split, create, organise, file, folder, close, exit, search, print, password, screenshot, snipping tool, shift, undo, redo, menu, dictionary, highlight, cursor, toolbar, spellcheck.</p> <ul style="list-style-type: none"> <li>• <u>Multimedia Sound and Motion</u></li> <li>• I can use software to record, create and edit sounds and capture still images;</li> <li>• I can change recorded sounds, volume, duration and pauses;</li> <li>• I can use software to capture video for a purpose;</li> <li>• I can crop and arrange clips to create a short film;</li> <li>• I can plan an animation and move items within each animation for playback;</li> <li>• I can use key vocabulary to demonstrate knowledge and understanding in this strand: audio, sound, video, movie, embed, link, file format, animate, animation, still image, thaumatrope, zoetrope, zoopraxiscope, stereoscope, flip book, frame, onion skinning, loop, frame rate, record, stop, play, stop motion, stop frame.</li> </ul> <p><u>Using the internet</u></p> <ul style="list-style-type: none"> <li>* I understand the term 'copyright'.</li> <li>* I understand how online services work.</li> <li>* I can explain ways to communicate with others online;</li> <li>* I can describe the world wide web as the part of the internet that contains websites;</li> </ul>	<p>Learners must be able to work with graphics: - insert, delete, position, drag and drop and copy and paste images - align images (left, right, centre) as appropriate - size images as appropriate - crop images as appropriate - border images as appropriate</p> <p>Learners must be able to work with other digital content: - insert video and / or sound file(s) provided into presentation slides</p> <p><u>General</u></p> <ul style="list-style-type: none"> <li>• I can choose the most suitable applications and devices for the purposes of communication.</li> <li>• I can use many of the advanced features in order to create high quality, professional or efficient communications.</li> </ul> <p><u>Multimedia Text and Images</u></p> <ul style="list-style-type: none"> <li>• I can use the skills already developed to create content using unfamiliar technology;</li> <li>• I can select, use and combine the appropriate technology tools to create effect;</li> <li>• I can review and improve my own work and support others to improve their work;</li> <li>• I can save, retrieve and evaluate my work, making amendments as nec.</li> <li>• I can insert a picture/text/graph/hyperlink from the internet or personal file;</li> <li>• I can use key vocabulary to demonstrate knowledge and understanding in this strand:</li> </ul>	<p>Learners must be able to work with other digital content: - insert video and / or sound file(s) provided into a multi-media presentation</p>
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		<ul style="list-style-type: none"> <li>* I can add websites to a favourites list;</li> <li>* I can use search tools to find and use an appropriate website and content;</li> <li>* I can use strategies to improve results when searching online;</li> <li>* I can use key vocabulary to demonstrate knowledge and understanding in this strand: filter, Google, search engine, image, keyboard, email, subject, address, communicate, sender, safe, secure, internet, world wide web, social media</li> </ul>	<p>window, layout, text, font, colour, format, heading, hyperlink, 2D shape, 3D shape, orbit, pan, zoom, eraser, dimension, measurement, guide</p> <ul style="list-style-type: none"> <li>•</li> </ul> <p><u>Multimedia Sound and Motion</u></p> <ul style="list-style-type: none"> <li>• I can collect audio from a variety of resources including own recordings and internet clips;</li> <li>• I can use a digital device to record sounds and present audio;</li> <li>• I can trim, arrange and edit audio levels to improve quality;</li> <li>• I can publish their animation and use a movie editing package to edit/refine and add titles;</li> <li>• I can use key vocabulary to demonstrate knowledge and understanding in this strand: audio, record, edit, play stop, skip, waveform, input, output, record, edit, play podcast, digital content, downloadable, backing track, voiceover, mute, gain, production, post-production, documentary, project, evaluation, screening, ceremony, upload.</li> </ul> <p><u>Using the internet</u></p> <ul style="list-style-type: none"> <li>• I can search for information using appropriate websites and advanced search functions within Google;</li> <li>• I can use strategies to check the reliability of information (cross-check with another source such as books);</li> <li>• I can talk about the way search results are selected and ranked;</li> </ul>	
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			<ul style="list-style-type: none"><li>• I can check the reliability of a website, including the photos on site;</li><li>• I can tell you about copyright and acknowledge the sources of information;</li><li>• I can use key vocabulary to demonstrate knowledge and understanding in this strand: world wide web, search, search engine, advanced search, results, Google, browser, terms of use, bias, authority, citation, plagiarism, source, website, secure, https, site, domain, website, browser, address bar.</li></ul>	
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DEVELOPING AN UNDERSTANDING OF DATABASES AND THEIR USES	<b>Pre Milestone 1</b> Beverley Steps P4 – 5 (Working Towards Entry Level)	<b>Pre Milestone 2</b> Beverley Steps P6 – 7 (Working Towards Entry Level)	<b>Pre Milestone 3</b> Beverley Steps P8-9 (Working Towards Entry Level – Entry Level 1)		
		<ul style="list-style-type: none"> <li>I can identify a source of information.</li> <li>I can use pictures or symbols to record information about myself.</li> <li>I can experience how to save and retrieve it from source.</li> </ul>	<ul style="list-style-type: none"> <li>I can identify sources of information.</li> <li>I can use pictures and symbols to record information about myself or others.</li> <li>I can with help gather info and save and retrieve it from source.</li> </ul>		
	<b>Milestone 1</b> Beverley Steps P10 – 11 Year 1 – 2 (Entry Level 2-Entry Level 3)	<b>Milestone 2</b> Beverley Steps P12 – 13 Year 3 – 4 (Level 1 Emerging – Level 1 Developing)	<b>Milestone 3</b> Beverley Steps P14 -15 Year 5 – 6 (Level 1 Secure- Level 2 Emerging)	<b>Milestone 4</b> Beverley Steps 16+ Year 7+ (Level 2 Developing- GCSE 4+)	
	<ul style="list-style-type: none"> <li>I can use simple databases to record information in areas across the curriculum</li> </ul> <p><b>Use simple databases to record information in areas across the curriculum</b></p> <ul style="list-style-type: none"> <li>I can talk about the different ways in which information can be shown.</li> <li>I can use technology to collect information, including photos, video and sound.</li> <li>I can sort different kinds of information and present it to others.</li> <li>I can add information to a pictograph and talk to you about what I have found out.</li> <li>I talk about the different ways I use technology to collect information, including a</li> </ul>	<ul style="list-style-type: none"> <li>I can devise and construct databases using applications designed for this purpose in areas across the curriculum.</li> <li>I can enter and store data e.g. customer records, lists of items such as books</li> <li>I can sort data alphabetically and numerically.</li> <li>I can search a data</li> <li>I can run simple queries</li> <li>I can produce data entry forms</li> <li>I can produce reports</li> <li>I can mail merge</li> </ul> <p><b>Devise and construct databases using applications designed for this purpose in areas across the curriculum.</b></p> <ul style="list-style-type: none"> <li>I can talk about the different ways data can be organised.</li> </ul>	<p><b>Recognise how to use a database</b></p> <ul style="list-style-type: none"> <li>I can select appropriate applications to devise, construct and manipulate data and present it in an effective and professional manner.</li> <li>I can identify the main components of a database.</li> <li>I can create a database table for a purpose using specified fields.</li> <li>I can enter structured data into records to meet requirements.</li> <li>I can locate and amend data records.</li> <li>I can respond appropriately to data entry error messages.</li> <li>I can check data meets needs, using IT tools and making corrections as necessary.</li> </ul> <p><b>Use a database</b></p>	<p><b>Create and modify non-relational database tables.</b></p> <ul style="list-style-type: none"> <li>I can identify the components of database design.</li> <li>I can describe the field characteristics for the data required.</li> <li>I can create and modify database tables using a range of field types.</li> <li>I can describe ways to maintain data integrity.</li> <li>I can respond appropriately to problems with database tables.</li> <li>I can use database tools and techniques to ensure data integrity is maintained.</li> </ul> <p><b>Enter, edit and organise structured information in a database.</b></p> <ul style="list-style-type: none"> <li>I can create forms to enter, edit and organise data in a database.</li> </ul>	

	<p>camera, microscope or sound recorder.</p> <ul style="list-style-type: none"> <li>• I can make and save a chart or graph using the data I collect.</li> <li>• I can talk about the data that is shown in my chart or graph.</li> <li>• I am starting to understand a branching database.</li> <li>• I can tell you what kind of information I could use to help me investigate a question</li> </ul>	<ul style="list-style-type: none"> <li>• I can search a ready-made database to answer questions.</li> <li>• I can collect data help me answer a question.</li> <li>• I can add to a database.</li> <li>• I can make a branching database.</li> <li>• I can use a data logger to monitor changes and can talk about the information collected.</li> <li>• I can sort and organise data in different ways.</li> <li>• I can collect data and identify where it could be inaccurate.</li> <li>• I can plan, create and search a database to answer questions.</li> <li>• I can choose the best way to present data to my friends.</li> <li>• I can use a data logger to record and share my readings with my friends.</li> </ul>	<ul style="list-style-type: none"> <li>• I can identify queries which meet information requirements.</li> <li>• I can run simple database queries.</li> <li>• I can identify reports which meet information requirements.</li> <li>• I can generate and print pre-defined database reports.</li> </ul> <p><b>Select appropriate applications to devise, construct and manipulate data and present it in an effective and professional manner.</b></p> <ul style="list-style-type: none"> <li>• I can use a spreadsheet and database to collect and record data.</li> <li>• I can choose an appropriate tool to help me collect data.</li> <li>• I can construct data on the most appropriate application</li> <li>• I can present data in an appropriate way.</li> <li>• I can search a database using different operators to refine my search.</li> <li>• I can talk about mistakes in data and suggest how it could be checked.</li> <li>• I can plan the process needed to investigate the world around me.</li> <li>• I can select the most effective tool to collect data for my investigation.</li> <li>• I can check the data I collect for accuracy and plausibility.</li> <li>• I can interpret the data I collect.</li> <li>• I can present the data I collect in an appropriate way.</li> </ul>	<ul style="list-style-type: none"> <li>• I can select and use appropriate tools and techniques to format data entry forms.</li> <li>• I can check data entry meets needs, using IT tools and making corrections as necessary.</li> <li>• I can respond appropriately to data entry errors.</li> </ul> <p><b>Use database software tools to run queries and produce reports.</b></p> <ul style="list-style-type: none"> <li>• I can create and run database queries using multiple criteria to display or amend selected data.</li> <li>• I can plan and produce database reports from a single table non-relational database.</li> <li>• I can select and use appropriate tools and techniques to format database reports.</li> <li>• I can check reports meet needs, using IT tools and making corrections as necessary.</li> </ul>
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			<ul style="list-style-type: none"> <li>• I use the skills I have developed to interrogate a database</li> <li>• I can use keyboard shortcuts and functions to input data on spreadsheets and create formulas for spreadsheets.</li> <li>• I can use key vocabulary to demonstrate knowledge and understanding in this strand: insert, table, spreadsheet, cell, row, column, formula/formulas, calculate, format, edit, insert, ascending, descending.</li> </ul>	
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This Progression Map complements the Curriculum Map, which covers subject content over time. These are planned in Key Stages and can be found on TEAMS.

