Computing Curriculum Map

Year Group	Curriculum Content					
Year 1	**Computer Skills** Click and drag; switch computer on/off; launch application; log on/off; move and resize application window	**Painting** Change colour/ brush; create shapes; save; fill; undo; redo; add text	**Word Processing Skills** Type with two hands; use shift, space, enter, backspace, delete, arrow keys, undo and redo; make text bold, italic and underline; save in a folder; select single words	**Programming Toys** Create and write instructions; direct and programme a Bee-Bot; plan and check an algorithm	**Scratch Jr** Open and start a project; add characters and backgrounds; use blocks; create sequenced instructions; resize, hide, show and programme characters	**Using and Applying** Turn on and open application; type; format text; draw and position shapes; use a brush and change shape/ colour; click, double click and drag; save and open files;
	Online Safety Type name and date; open web browser; recall SMART rules; recognise personal information to keep safe from strangers; know who to tell if asked for personal information; email for communication; choose Safe Search filter					
Year 2	**Using the Internet** Search using 'for kids'; follow a weblink; log in, post, locate and comment on blogs; identify search results with useful information	**Computer Art** Access an appropriate programme to recreate a piece of art; switch between program tools; alter the formatting of a tool to adjust colour and size; manipulate shapes and objects to	**Presentation Skills** Insert slides; add and type in text boxes; create folders; print files; add images; format text and text boxes	**Preparing for Turtle Logo** Walk forward a number of steps; turn accurately 90°; walk squares and rectangles; give and follow instructions	**Programming Turtle Logo and Scratch** Draw lines using the fd command; move blocks into the Scripts Area; snap blocks together to combine commands; turn the turtle using rt 90 and lt 90; draw	**Using and Applying** Find and open software; add text and images; retrieve and open files; select a backdrop and character in Scratch and make the character move; control the mouse to produce

					squares and rectangles; create simple algorithms; use the repeat and green flag blocks to control algorithms.	different effects; add new slides to a presentation and insert and reorder slides.
	Online Safety Know what a 'digital footprint' is; know people can use their online information; identify keywords to give good search results; use a website to safely search for information; begin to identify possible dangers online; identify suitable websites for their age; know when to ask an adult for advice about accessing a website and what to do if they feel uncomfortable; give their opinion about a website; identify unkind online behaviour and know what to do if someone is unkind to them online.					
Year 3	**Internet Research and Communication** Understand how word order affects the results returned; bookmark or favourite a page; share a webpage with others; name and research different types of online communication; know what to do if uncomfortable when communicating	**Drawing and Desktop Publishing** Draw, order and group objects; insert, move, resize and arrange text boxes and images	**Word Processing** Use undo and redo; make text bold, italic and underline; select text and single words in different ways; change case; align text; cut, copy and paste text; format font; insert images; copy a screenshot into another application; use a secure password; use <ctrl> keyboard shortcuts.	**Presentation Skills** Create a simple presentation; create shapes; create a hyperlink to another slide; use slide transitions; insert audio and video files; record audio onto a slide; plan a branching story; create simple slide templates; copy and organise slides.	**Programming Turtle Logo and Scratch** Create and debug algorithms to draw regular polygons using the repeat command/block; use penup and pendown to draw shapes with spaces between; change and alter pen settings.	**Using and Applying Skills** Draw/design images and import them into other software; research and use information and images from the internet; design an effective presentation.

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	online; identify how to behave online				
	Online Safety Recognise and define cyberbullying and know who to report it to and how it can happen; identify targeted online adverts; explain how companies use websites to promote products; create a strong password; explain what privacy settings are and how to use them; identify emails that may be unsafe to open; write an email, including an address and subject; safely send and receive emails; evaluate methods of online communication and compare to real life communication.				
Year 4	**Animation** Describe methods of animation; create a series of linked frames to play as a short animation; control and adjust a time slider; insert, edit and refine images to create a simple stop-motion animation; evaluate and compare animation software; make slight changes to an image using onion skinning.	**Word Processing** Select, edit and manipulate text in different ways; insert and image into a document; format and apply effects to an image; use formatting tools to improve layout; use spellcheck and add a spelling to the spelling dictionary; insert a simple table; add or delete rows or columns in a table; change page size; use some main keyboard shortcuts; type at an appropriate speed; create a hyperlink.	**Scratch: Questions & Quizzes** Write a program which accomplishes a specific goal; create a programme that includes a logical sequence; debug a program they have written; use repetition and selection; work with and adjust variables; understand and use the duplicate functions.	**Programming Turtle Logo** Write procedures using simple algorithms; change pen colour; write text using the label command; draw shapes using setpos or setxy; fill shapes in different colours; draw arcs of different sizes.	**Using and Applying Skills** Design and create a character; tell a story involving this character; combine software to present information about the character.

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<td colspan="6">Online Safety
Identify comments/messages that may be hurtful and know how to respond to these; edit their own messages to ensure they are kind; access a trusted search engine; understand that different search terms give different results; understand that search results are ranked; know what plagiarism is; explain how to use other people's work respectfully; identify which information to keep private online and why sharing this may be dangerous; explain how to be a good digital citizen; tell someone how to stay safe online.</td>
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<td>Year 5</td>
<td>Internet Research and Webpage Design
Comment on features and layout of a webpage; create a new webpage with a chosen layout and format text; independently search for images to use in documents; insert and format images; independently create a hyperlink; share a webpage; use advanced features of Google's web search.</td>
<td>Radio Station
Record and play their own sounds; locate, download, import and play existing sounds; choose appropriate software for sound recording; plan and record a radio advert; listen to and improve their own recordings by re-recording; combine two or more tracks to make a new, original recording; plan and record audio for a podcast; evaluate features that make good quality audio content.</td>
<td>3D Modelling:
SketchUp
Draw 2D shapes or lines; draw simple 3D models; Manipulate 2D shapes into 3D shapes; use inference points to draw lines and shapes; use a range of SketchUp tools including shape, push, pull, orbit, pan, zoom, erase, fill, tape measure, zoom extents, the 3D warehouse and the dimensions toolbar.</td>
<td>Flowol
Draw a simple flowchart; insert symbols into a flowchart and modify them; add inputs into a flowchart; create a program to control a simple sequence; create flowcharts for multiple inputs and outputs; use decisions and subroutines; program inputs and outputs</td>
<td>Scratch 3.0
Developing Games
Move and edit blocks as part of an algorithm; program an algorithm as a sequence of game instructions with actions and consequences.</td>
<td>Using and Applying Skills
Use search engines safely and effectively; use and combine software to draw and design room plans and other features, and to present information in different ways.</td>
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	Online Safety
	Identify a spam email and explain what to do with it; understand why they should cite a source and spot citations online; create strong passwords using a set or rules; know that not everything they see online is true; explain how to stay safe online; identify unsafe online behaviour; alter a photograph.

Year 6	Spreadsheets	Film-Making	Kodu Programming	Scratch: Animated Stories	Using and Applying Skills
	Enter text and numbers into a spreadsheet; identify and refer to cells by row and column; enter formulae with the SUM function; edit data and discuss the effect on results; use the AVERAGE, MIN and MAX functions; create graphs; design a spreadsheet for a specific purpose.	Plan and write a script using appropriate software; plan additional elements for film-making such as locations and props; search for relevant information using appropriate websites; evaluate whether information is reliable or not; use a digital video camera or similar to record; speak clearly into the camera when being recorded; frame an appropriate filming shot when interviewing; plan suitable questions to ask an interviewee; arrange video files to form a complete film; import video files into video editing software.	Open Kodu and navigate the programming environment, following given instructions; add objects to a world and program them using When and Do instructions; describe the actions of a sequence of Kodu commands; plan and design features of an original virtual environment; use tools to change the size of the ground and raise or lower the landscape; create a race track with an end goal for a game; decompose and explain code; program a character to move around a track; create a	Select appropriate characters to match a scene; structure and sequence the animation of characters with movement and speech in a story scene; use broadcast, receive, show and hide blocks correctly in code; create a sequence of story scenes with added audio; use the repeat command to create animation effect; make a character visible or invisible at the correct times.	Present research on game types to inform planning; use Scratch or Kodu to create a simple game; design appropriate advertising materials to launch or promote a product.

		path and program a character to follow it.		
	Online Safety Say what bullying and cyberbullying are and how cyberbullying should be dealt with; identify warning signs that a website might not be secure; look in the address bar of a website to check for security; identify the lock symbol in an address bar; identify personal information and the dangers of revealing this online; explain why someone might want to have an online friendship; explain what the SMART acronym means; identify situations they should be careful in online; explain what a stereotype is and how it can be harmful; compare gender stereotypes.			