

STEM Computing Information Technology Progression Mapping 2021

	Content progression	Vocabulary progression	Skill progression.
--	---------------------	------------------------	--------------------

Year 1	<p><u>Autumn</u></p> <p>Logging on and off</p> <p>Different parts of a computer including what basic cions mean in different applications</p> <p>Using a mouse to paint and create/modify a picture.</p> <p>Using talking postcards to record and play back speech</p> <p><u>Spring</u></p> <p>Purple Mash Unit 1.2 – Grouping and Sorting using 2DIY (Spring 2)</p> <p>Purple Mash Unit 1.3 – Create a Pictogram using 2Count (Spring 2)</p> <p><u>Summer</u></p> <p>Purple Mash Unit 1.6- Create an animated storybook using sound (Summer 1)</p> <p>Purple Mash Unit 1.5 – Maze Explorers (Summer 2)</p>	<p>Sort criteria</p> <p>Pictogram data collate</p> <p>Animation e-book font file ‘sound effect’ ‘display board’</p> <p>Direction challenge arrow undo rewind forward backwards ‘right turn’ ‘left turn’ debug instruction algorithm</p>	<p><u>Text and Multimedia</u></p> <p>Children can work with others and with support to contribute to a digital class resource which includes text, graphic and sound.</p> <p><u>Digital Images (photos, paint, animation)</u></p> <p>Children can use a range of simple tools in a paint package / image manipulation software to create / modify a picture.</p> <p><u>Sound and music (inc sound recorders)</u></p> <p>Children can; chose suitable sounds from a bank to express their ideas.</p> <p>Record short speech.</p> <p><u>Handling information (databases and graphs)</u></p> <p>Children can (as a class or individually with support) use a simple pictogram or painting program to develop simple graphical awareness / one to one correspondence</p> <p><u>Modelling and simulations (spreadsheets, adventure games and simulations)</u></p> <p>Children can; make simple choices to control a simple simulation program.</p>
--------	--	---	---

STEM Computing

Information Technology Progression Mapping 2021

Content progression

Vocabulary progression

Skill progression.

Year 2	<p><u>Autumn</u> Logging on and off Saving into and retrieving from a folder (Autumn 1).</p> <p>Purple Mash Unit 2.7 - Making Music using 2Sequence (Autumn 2).</p>	<p>Impressionism palette pointillism share surrealism template</p> <p>Bpm composition digitally instrument music 'sound effects (sfx) soundtrack tempo volume</p>	<p><u>Text and Multimedia</u></p> <p>Children can; generate their own work, (with help where appropriate with multimedia) combining text, graphics and sound.</p> <p>Save, retrieve and edit their work.</p>
	<p><u>Spring</u> Purple Mash Unit 2.6 - Creating pictures using 2Paint a picture (Spring 2)</p> <p><u>Summer</u> Spreadsheets Purple Mash Unit 2.3 – 2Calculate (Summer 1)</p> <p>Questioning Purple Mash Unit 2.4 – 2Question, 2Investigate (Summer 1)</p>	<p>Pictogram question data collate 'binary tree' avatar database</p> <p>'backspace key' 'copy and paste' columns cells count tool 'delete key' 'equals too' 'image toolbox' 'lock tool' 'move cell tool' rows 'speak tool' spreadsheet</p>	<p><u>Digital Images (photos, paint, animation)</u></p> <p>Children can; use a range of tools in a paint package / image manipulation software to create / modify a picture to communicate an idea.</p> <p><u>Sound and music (inc sound recorders)</u></p> <p>Children can; compose music from icons.</p> <p>Produce a simple presentation incorporating sounds the children have captured or created.</p> <p><u>Handling information (databases and graphs)</u></p> <p>Children can; use a graphing package to collect, organise and classify data, selecting appropriate tools to create a graph and answer questions.</p>

STEM Computing Information Technology Progression Mapping 2021

	Content progression	Vocabulary progression	Skill progression.
--	---------------------	------------------------	--------------------

	Adding sounds to a simple presentation using Textease (Summer 2)		<p>Enter information into a simple branching database, database or word processor and use it to answer questions.</p> <p>Save, retrieve and edit their work.</p> <p><u>Modelling and simulations (spreadsheets, adventure games and simulations)</u></p> <p>Children can; play an adventure game and use a simple simulation, making choices and observing the results.</p>
Year 3	<p><u>Autumn</u> Presentation skills – Textease presenter (Autumn 1)</p> <p>Branching Data bases unit 3.6 Purple Mash (Autumn 2)</p> <p>Graphing Unit 3.8 – 2Graph Purple Mash (Autumn 2)</p> <p><u>Summer</u> Touch Typing Unit 3.4 – 2Type Purple Mash (Summer 1)</p> <p>Simulations Unit 3.7 – 2Simulate, 2Publish (Summer 1)</p>	<p>Posture ‘top row keys’ ‘home row keys’ ‘bottom row keys’ ‘space bar’</p> <p>Simulation</p> <p>Animation audio ‘design templates’ ‘entrance animation’ font media presentation ‘presentation program’ slide slideshow ‘stock image’ ‘text box’ ‘text formatting’ transition</p> <p>Animation audio ‘design templates’ ‘entrance animation’ font media presentation ‘presentation program’ slide ‘slide show’ stock image’ ‘text box’ ‘text formatting’ transition</p>	<p><u>Text and Multimedia</u></p> <p>Children can; record and present information integrating a range of appropriate media combining text and graphics in printable form for on-screen presentations which include hyperlinks.</p> <p>Begin to show an awareness of the intended audience and seek feed-back.</p> <p><u>Digital Images (photos, paint, animation)</u></p> <p>Children take photographs and can create a presentation of their work.</p> <p><u>Handling information (databases and graphs)</u></p> <p>Children can use a simple database (the structure of which has been set up for them) to enter and save and save information on a given subject.</p> <p><u>Modelling and simulations (spreadsheets, adventure games and simulations)</u></p> <p>Children can; use models and simulations to find things out and solve problems.</p>

STEM Computing

Information Technology Progression Mapping 2021

	Content progression	Vocabulary progression	Skill progression.
--	---------------------	------------------------	--------------------

	Developing presentation skills in Excel – using a hyperlink and photos on Powerpoint Unit 3.9 – Purple Mash or Google Slides (Summer 2)		Recognise that simulations are useful in widening experience beyond the classroom.
Year 4	<p><u>Autumn</u> Effective Search Unit 4.7 – Purple Mash (Autumn 2)</p> <p>Hardware investigators (Autumn 1)</p> <p>Creating a balanced argument – Podcasts (Autumn 2)</p> <p><u>Spring</u> Writing for different audiences Unit 4.4 – 2Email, 2Connect, 2DIY (Spring 2)</p> <p><u>Summer</u></p>	<p>font bold italic underline 'Easter egg' internet browser' search 'search engine' 'spoof website' website</p> <p>Animation background frame flipbook 'onion skinning' stop- motion play sound video clip</p>	<p><u>Text and Multimedia</u></p> <p>Children can; record and present information integrating a range of appropriate media combining text and graphics in printable form and sound and video for on-screen presentations which include hyperlinks.</p> <p>Begin to show an awareness of the intended audience and seek feed-back.</p> <p><u>Digital Images (photos, paint, animation)</u></p> <p>Children can make a short animation from images (still and / or moving) that they have sourced, captured or created.</p> <p><u>Sound and music (inc sound recorders)</u></p> <p>Children can create a simple podcast, selecting and importing already existing music and sound effects as well as recording their own.</p>

STEM Computing

Information Technology Progression Mapping 2021

	Content progression	Vocabulary progression	Skill progression.
--	---------------------	------------------------	--------------------

	<p>Spreadsheets unit 4.3 Purple Mash (Summer 1)</p> <p>Animation and film making Unit 4.6 – 2Animate Purple Mash Imovies (Summer 2)</p>		<p><u>Handling information (databases and graphs)</u></p> <p>Follow straight forward lines of enquiry to search their data for their own purposes.</p> <p>Children can create a simple spreadsheet</p> <p>Talk about their experiences of using ICT to process data compared with other methods.</p>
Year 5	<p>Autumn</p> <p>Presenting with Microsoft Powerpoint (embedding a short film) (Autumn 2)</p> <p>Short film making (Autumn 2)</p> <p>3D modelling - Unit 5.6 – 2Design and make Purple Mash (Autumn 1)</p> <p>Spring</p>	<p>CAD' computer aided design' modelling 3D viewpoint</p> <p>Polygon 2D net '3D printing' points template</p> <p>Copyright</p> <p>Cursor document font in-built styles</p> <p>Merge cells paragraph formatting</p> <p>Readability template text-formatting text-wrapping</p> <p>Word art 'word processing tool'</p>	<p><u>Text and Multimedia</u></p> <p>Children can use advanced tools in word processing / DTP software such as tabs, appropriate text formatting, line spacing etc appropriately to create quality presentations appropriate for a known audience.</p> <p><u>Digital Images (photos, paint, animation)</u></p> <p>Children can make a short film from images (still and / or moving) that they have sourced, captured or created.</p> <p><u>Sound and music (inc sound recorders)</u></p>

STEM Computing Information Technology Progression Mapping 2021

	Content progression	Vocabulary progression	Skill progression.
--	---------------------	------------------------	--------------------

	<p>Concept Maps Unit 5.7 Purple Mash (Spring 1)</p> <p>Data loggers – used in science and maths (Spring 2)</p> <p>Word Processing Unit 5.8 – Word or Google Docs (Spring 2)</p> <p>Summer Purple Mash Unit 5.5 – Game Creators (Summer 1)</p> <p>Spreadsheets Unit 5.3 – 2Calculate (Summer 2)</p> <p>Databases – linked to Unit 5.4 – 2Question, 2Investigate (Summer 2)</p>	<p>Average advance mode 'copy and paste' columns cells charts 'equals too' formula 'formula wizard' 'move cell tool' 'random tool' rows 'spin tool' spreadsheet timer</p> <p>Avatar 'binary tree' charts collaborative data database find record 'sort, group and arrange' 'statistics and reports' table</p>	<p>Children can create multiple track compositions that contain a variety of sounds.</p> <p><u>Handling information (databases and graphs)</u></p> <p>Children can; (as a class or group) create a data collection sheet and use it to setup a straightforward database to answer questions.</p> <p>Enter information and interrogate it (by searching, sorting, graphing etc).</p> <p>Begin to reflect on how useful the collected data and their interrogation was and whether or not their questions were answered.</p> <p><u>Modelling and simulations (spreadsheets, adventure games and simulations)</u></p> <p>Children can; set up and use a spreadsheet model to explore patterns and relationships.</p> <p><u>Data logging (science and maths)</u></p> <p>Children use a data logger confidently, connected to the computer or remotely, to capture continuous or intermittent data readings</p> <p>Children interpret the results and use these in their investigations</p> <p>Children realise the advantages of using ICT to collect data that might otherwise be problematic</p>
--	---	---	---

STEM Computing Information Technology Progression Mapping 2021

	Content progression	Vocabulary progression	Skill progression.
--	---------------------	------------------------	--------------------

Year 6	Autumn Spreadsheets including formulas Unit 6.3 – 2Calculate Purple Mash Excel (Autumn 1)	‘average function’ ‘advance mode’ ‘copy and paste’ columns cells charts ‘count tool’ dice formula ‘formula wizard’ ‘equals tool ‘random tool’ rows ‘move cell tool’ spreadsheet timer ‘spin tool’	<u>Text and Multimedia</u> Multimedia work shows restrained use of effects that help to convey meaning rather than impress.
	Spring Blogging Unit 6.4 – 2Blog Purple Mash (Spring 2)	Audience blog ‘blog page’ collaborative icon	<u>Digital Images (photos, paint, animation)</u> Use images that they have sourced / captured / manipulated as part of a bigger project – quizzing
	Summer Quizzing Unit 6.7 – 2Quiz, 2DIY, Text Toolkit, 2Investigate (Summer 2)	‘concept map’ database quiz	<u>Handling information (databases and graphs)</u> Children can; independently solve a problem by planning and carrying out data collection, by organising and analysing data involving complex searches using a database, and by drawing conclusions and presenting findings. The need for accuracy is demonstrated and strategies for spotting implausible data are evident. Children should be able to talk about issues relating to data protection and the need for data security in the world at large (eg health, police databases). (See internet legends – be secure)

STEM Computing

Information Technology Progression Mapping 2021

Content progression

**Vocabulary
progression**

Skill progression.

--	--	--	--