Computing Progression – Landscape View

	Early Years
Strand – To Code (Computer Science)	**Repeat an action with technology to trigger a specific outcome**
	Recognise the success or failure of an action
	Follow simple instructions to control a digital device
	Understand that we control computers

	Year 1/2	Year 3/4	Year 5/6
Strand – To Code (Computer Science)	**Understand and describe what an algorithm is.**	Design and write programs that accomplish specific goals including controlling or simulating physical systems	**Design & write programs by turning a real life situation into an algorithm**
	To create a simple algorithm (1-2 steps)	**De-bug simple algorithms by using logical reasoning**	Solve coding problems by decomposing them into smaller parts.
	To debug a simple algorithm (correct errors)	**Use sequence, selection and repetition in programs**	Read and predict other people's codes
	Use logical reasoning to predict the behaviour of simple algorithms	Work with variables and various forms of input and output	**De-bug increasingly complex algorithms by using logical steps**
		Use specified number of steps to travel, direction, turns & screen coordinates to control movement	

	Early Years
Strand- To connect (Digital Literacy)	**Can distinguish between text, image, video and audio content**
	Sort familiar objects into 1 or more categories
	Answer basic questions about information displayed in images, e.g. more or less
	Collect simple data (e.g. likes/dislikes) on a topic
	Can present simple data using images, e.g. number of animals

	Year 1/2	Year 3/4	Year 5/6
Strand - To connect (Digital Literacy)	Recognise common uses of IT beyond school	Understand the function, features and layout of a search engine.	Appraise web pages for credibility
	Use technology safely online, keeping personal information private	Use search technologies effectively, locating relevant information and understanding how results are ranked.	Use search engines to provide relevant and accurate information to support their learning.
	Understand where to go for help and support when they have concerns about content or contact on internet (or other online technologies)	Use technology safely and respectfully.	Use technology safely and respectfully and responsibly, recognising unacceptable behaviour online
	Independently log on to the school network.	**To know how to report concerns about online content.**	To identify a range of ways to report concerns about online content and online contact.
	Understand and describe online risks and the age rules for sites.	Explain the need to stay safe when communicating online and understand the risks.	Collaborate with others online on sites approved and moderated by teachers.
	Navigate simple webpages using forward, back and the home button.	To know that comments made online can be hurtful or offensive and are the same as bullying.	**Understand the effects of cyber-bullying**
	Switch on and shut down a device independently.	Understand and describe the term 'copyright'.	**Describe the dangers online and how to minimize risks and report problems.**
	Log-in and out of devices independently.		
	Print a document with support.		

	Early Years
Strand- To communicate	Use technology to explore and access digital content
	Operate a digital device with support to fulfil a task
	Create simple digital content, e.g. digital art
	Choose media to convey information, e.g. image for a poster
	Choose a digital device from a selection to complete a specific task

	Year 1/2	Year 3/4	Year 5/6
Strand - communicate	**Use keyboard skills to be able to word process simple texts.**	Understand computer networks, including the internet	Recognise and name main components of hardware which allow computers to join or form a network
	Use word processing applications	Recognise and name main components of computer hardware	Make appropriate choice about the best way to present information and best software for the purpose of the job
		Understand how networks can provide multiple services (E.g. the web; opportunities for communication and collaboration; online baking/shopping.)	**Manipulate images e.g cropping, changing the colour of the image etc.**
		To use word processing skills including bullets/numbering, text boxes, ctrl key, fonts, upper/lower cases.	**Create presentations with range of links, images and sounds.**

	Year 1/2	Year 3/4	Year 5/6
Strand – To collect (Information Technology)	**Organise & Store - Save a document in their folder with support.**	**To begin to devise and construct databases**	**Develop animation/filming skills: scripting, recording and editing sound, using narration and dialogue**
	Retrieving – Open work previously saved	**Make and explore branching databases**	Edit short films and evaluate quality.
	Manipulate – Edit work	Input data into aa data base; generating graphs and charts.	**To devise and construct databases**
	Use simple databases to find and record information in areas across the curriculum with support.	To begin to devise and construct spreadsheets	Make and explore branching databases.
	Capture and download images/video from devices (e.g. camera) or applications (e.g. internet)		Collect, analyse, evaluate, input and present data and information generating graphs and charts.
	Film short video clips with support		**To devise and construct spreadsheets**
			To make practical use of a spreadsheet to model real life situations

Computing Vocabulary Progression Reception – Yr6

Computing is split into 5 different categories: E-Safety, Programming, Multimedia, Technology in Our Lives and Date Handling. Below is the vocabulary progression from Reception until they leave us in Year 6.

E-Safety				
Reception	**Year 1**	**Year 2**	**Year 3 and Year 4**	**Year 5 and Year 6**
Choices Internet Website	Rules Online Private information Email	Appropriate/inappropriate sites Cyber-bullying Digital footprint Keyword searching	E-safety rules Secure passwords Report abuse button Gaming Blogs	Responsible online communication Informed choices Virus threats Blogs Messaging

Programming						
Reception	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**
Equipment Buttons Movement	Instructions Buttons Robots Patterns Program	Forward Backward Right-angle turn Algorithm Sequence Debug Predict	Sequence instructions Sequence debugging Test + improve Logo commands Sequence programming	Type + edit logo commands Sensors Open-ended problems Bugs in programs Complex programming	Explore procedures Refine procedures Variable Hardware + software control Change inputs Different outputs Articulate solutions Commands	Predicting outputs Plan, program, test & review a program Program writing Control mimics + devices Sensors Measure input Create variables Link errors

Multimedia

Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Screen Mouse Images Keyboard Paint	Videos Camera stills Sounds Image bank Word bank Space bar	Paint effects Templates Animation Documents Index finger typing Enter/return Caps lock Backspace	Multimedia Presentations Alignment Brush size Repeats Reflections Green screening Amend Copy Paste	Creating + modifying Specific purpose Photo modifying Keyboard shortcuts Bullet points Spell check Constructive feedback	Online sharing Multimedia effects Multimedia modification Transitions Hyperlinks Editing tools Refining Online sharing	Appropriate online tools Audience Atmosphere Structure Copyright Information collection HTML code Storing

Technology in Our Lives

Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Technology Share Create Internet	Purpose Online tools Communicate	Information sources Communication Purposes Website content	School network Devices Computer parts Collaborate Appropriate online communication Search tools Appropriate websites Owner	Different networks Information collection Reliability Owners	Computing devices Internet parts Collaboration Responsibility Searching strategies Webpages	Information movement Connecting devices Different audiences Research strategies Search result rankings Acknowledge resources

Data Handling

Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Collect Set of photos Count Organise	Photographs Video Sound Data Pictogram Digitally	Capturing moments Magnified images Questions Data collection Graphs Charts Save Retrieve	Questioning Database Construct Contribute Recording data Data logger Present data	Database creation Database searches Inaccurate data	Spreadsheets Complex searches (and/or: </>) Problem solving Present answers Analyse information Question data Interpret	Generate Process Interpret Store Present information Plausibility Appropriate data tool Interrogate Investigations