Computing—Skills Progression

	Y1	Y2	Y3	Y4	Y5	Y6
Computer skills	Children will learn how to: • How to switch on and shut down a computer • Use a computer mouse • Launch applications and manipulate windows • Open and save files and folders • Drag objects using a mouse Using Word, children will learn how to: • Type with two hands • Use the shift, space and enter key • Edit work by using the backspace, delete and arrow keys • Undo and redo text • Select and format text	Children will *consolidate* how to: • Turn on and off the computer independently • Use a mouse accurately to manipulate the screen • Open applications • Type with two hands	Using Microsoft Word, children will learn how to: • Use the snipping tool • Search for files • Take screenshots • Use the 'change case' button • Use menu buttons • Align text • Use the 'show all characters' button • Use bullets and numbering • Use keyboard shortening keys • Add text boxes and wrap text	Using Microsoft Word, children will learn how to: • Select, edit and manipulate text in different ways • Insert an image into a document • Format an image • Use formatting tools to improve layout • Use the spellcheck tool • Insert a simple table • Change the size of the page		Using Excel, children will learn how to: • Understand and use spread sheets • Format and enter specific formulas • Solve specific problems such as number calculations • Create their own spread sheet • Use basic formula to find answers to problems including SUM and AVERAGE • Insert a bar or column graph from a spreadsheet • Replicate formulas over several cells
Computer art/DT	Using Microsoft Paint, the children will learn how to: • Use different colours and brushes • Create shapes • Fill areas • Undo and redo designs • Add text to a paint design	Using Microsoft Paint, the children will learn how to: • Build on their prior computing painting knowledge • Create a painting in the style of an artist • Create darker and lighter shades of colour	Using Microsoft Paint, children will learn how to: • Draw, order, group and manipulate objects to make a picture	Using Microsoft Publisher, children will learn how to: • Create text boxes • Insert photos off the internet and clipart • Resize and position objects • Use the 'crop' feature • Edit text • Control a model using an ICT control model (codebug)	Using SketchUp, children will learn how to: • Develop and extend on their drawing skills to create 3D models • Create simple and complex 3D models • Add detail and manipulate 3D models using a variety of tools	

Programming and animation	Using Scratch Junior, the children will learn how to:	Using Turtle Logo, children will learn how to:	Using Turtle Logo, children will learn how to:	Using Scratch, children will learn how to:	Using Scratch, children will learn how to:	Using Scratch, children will learn how to:
	• Give simple algorithms • Debug simple algorithms • Use logical reasoning to predict how a program will behave • Understand the basic principles of coding • Direct a Bee-Bot to a toy • program a Bee-Bot, one instruction at a time, using the arrow buttons.	• Create, test and debug algorithms • Move forward and make quarter turns, • Use command abbreviations for moving forwards, right and left • Use the 'repeat' command Using Scratch, children will learn how to: • Write basic algorithms to make the Sprite move using a series of blocks • Use the 'repeat' command • Add sound	• Move and draw a figure on a screen using 'pen up' and 'pen down' • Use algorithms and the 'repeat' command Using Scratch, children will learn how to: • begin to use logical reasoning to explain how some simple algorithms work • use sequence, selection, and repetition in programs • write and debug simple programs that accomplish specific goals.	• Write quizzes by combining questions • Solve problems • Test and debug algorithms • Add sound and backgrounds • Edit characters by combining blocks Using Turtle Logo, children will learn how to: • Create an algorithm to program a procedure • Use colour • Set the position of the turtle using coordinates • Use the arc command to create patterns using different shapes	• Build and edit algorithms • Develop their skills in writing their own algorithms as well as editing and debugging existing codes • Add sounds • Manipulate the movement of two or more characters Using Flowol, children will learn how to: • Use flowcharts to program and control devices • Build sequences of instructions, control multiple outputs and structure algorithms with decisions and inputs • Insert symbols to create a working flowchart • Edit symbols to modify the effect • Edit a flowchart to control an output • Use 'inputs' and 'reasoning loops' • Create a subroutine separate to the main flowchart program	• Develop their skills in writing their own algorithms as well as editing and debugging existing codes • Structure code and animate characters and scenes, gradually building to create a short animated story Using Kodu, children will learn how to: • Create their own world • Edit a world by adding effects • Edit a character by adding code, allowing them to interact with the world • Control a character using a keyboard to follow a pre-planned algorithm • Design a race between two characters

| Internet research and communication | | | Children will learn how to:
- Use the internet safely and purposefully
- Search the internet using one word and make sense of the results
- Use "for kids" to return suitable results
- Follow links and then return to the search results
- Use a range of search engines | Children will :
- Identify what the Internet is and how it works, including how packets of data move along routes and the different connections that can be used.
- Use a search engine to find information and implement strategies to improve results when searching online, including using keywords.
- Know how to cross-reference using tabs and identify reliable links through looking for a secured padlock in the URL address bar.
- Know how to bookmark or favourite an appropriate web page.
- Use a search engine to copy and paste images across to a blank document." | Children will:
- Recognise different methods of online communication
- Identify features of email and demonstrate an understanding of spam emails and phishing.
- send emails using the CC feature.
- Understand what an attachment is
- Understand what a cloud storage service is and can explain how the tools available are used to collaborate online,
- Children can demonstrate their understanding of opening and editing a shared document using online collaborative tools | Children will:
- Search for information using appropriate search engines and refine search terms using keywords.
- Refine their searches using Boolean operators with some guidance.
- Check the reliability of information on web pages.
- Explain how search engines work using key vocabulary, such as web indexing and web crawlers.
- Understand that search results are ranked and can explain how page ranking works.
- Children can explain what search engine optimisation (SEO) is and can suggest some SEO improvements for a web page."

Using Google Sites, children will learn how to:
- Create and edit a webpage using Google
- Use advanced search features in Google
- Create a webpage with the layout of their own
- Add hyperlinks across different webpages
- Add a homepage with images and text | Using Google Sites, children will learn how to:
- Create an entire website by first researching what makes a good website
- Create a sitemap and multi-page website
- Link pages internally and externally
- Preview a webpage before publishing |

Sound and recording				Using MovieSoup, the children will learn how to: • Add timings using application • Order and sequence frames • Insert images to create a simple stop-motion animation short film clip	Using Audacity, children will learn how to: • Use software and digital devices for recording sound • Present, listen to and review their own sound recordings • Edit pitch and volume • Add background sounds	Using Windows Movie Maker, children will learn how to: • Use digital devices for recording (video camera or tablet) to plan good quality interviews for a documentary • Import video files into video editing software • Create transitions and visual effects to enhance a movie • Add a title and credits
Presentation skills		Using Microsoft PowerPoint, children will learn how to: • Create simple presentations • Use appropriate skills to create a PowerPoint including; adding new slides, editing slide layout, adding and formatting images, reordering slides, present slideshow and printing • Save work into a folder which can be found and opened	Using Microsoft PowerPoint, children will learn how to: • Set a theme for a PowerPoint • Use slide transitions and animations • Create hyperlinks in the action settings • Add audio and videos			
Technology and Networks	Children will: • Explain what a computer network is and how it works. • Identify devices that connect to a computer network.	Children will: • Identify examples of technology in different settings • Describe how they use technology and the benefits • Identify some ways in which technology has changed over time • Name at least one person who has made a significant contribution to technology		Children will: • Identify the differences between the Internet and the World Wide Web. • Explain what cloud computing is. • Identify the advantages and disadvantages of cloud computing.	Children will: • Identify different broadband connections used to connect to the Internet. • Describe what streaming is and provide examples of types of media that are streamed online.	Children will: • Identify different types of malware. • Explain how malware can affect a computer network. •

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E-safety	Children will understand: • Rules to follow to keep safe online • How to search for reliable sources online • How to keep personal information private • How to put their name and date on something that is theirs • How to safely use email for communication	Children will understand: • Websites that are appropriate and not • Digital footprints • Cyberbullying • Keyword searching online • How to judge whether a website is a good source of information or not	Children will understand: • The importance of secure passwords • How to communicate online safely • How websites use promotions • In-person and online communication differences • How to communicate effectively via email	Children will understand: • How to be a good online citizen • How to protect themselves from online identify theft • Cyberbullying messages • How to increase the strategies for keyword searches • Plagiarism	Children will understand: • How to create strong passwords • How to build a strong digital citizenship community • Spam and its consequences • How to cite a website • Photo alternations and how can photos can be altered digitally	Children will understand: • How to talk safely online • How to be a good digital citizen • Privacy rules and policies • How to tackle and deal with cyberbullying if it arises • How online stereotypes can be influential
Vocabulary	Computer Typing Shift Space Enter Editing Backspace Delete Arrow keys Undo Redo Text Mouse Applications Windows Open Save	Mouse Type Applications Painting Microsoft Paint Fill Edit Move Darker Lighter Shades Emotion Coding Programming Animation Algorithm	Word processing Screenshots Change case Menu Align Text Bullets Numbering Text boxes Wrap text Manipulate Draw Picture Programming Coding Algorithm	Select Edit Insert Image Format Spellcheck Table Test Debug Algorithms Edit Characters Quiz Co-ordinates Publisher Text box	3D modelling Design Colour Building Tools Algorithms Edit Debug Sound Manipulate Movement Flowol Flowcharts Input Output Reasoning loop	Spreadsheet Formula Calculations SUM AVERAGE Algorithm Code Scenes Animations Debugging Keyboard control Sitemap Multi-page website Internal External

Paint Colours Brushes Shapes Autofill Text Programming Bee-Bots Scratch Junior Algorithms Debug Coding E-safety Online safety Search Reliable Personal information Email Communication Safe	Debug Repeat Command Internet Safety E-safety Presentation Folders Search Files Print Slide layout Reordering Slideshow Artificial Intelligence Augmented Reality Digital device Virtual Reality World Wide Web Digital footprint Cyberbullying Keyword Source	Repeat command Website Reliable Unreliable Webpages Browser Folder Communication Safe Snipping tool PowerPoint Theme Slide transitions Hyperlinks Audio Videos Secure Passwords Communicate Websites Email	Resize Crop Edit text Stop-start animation Sequence Timing Frames Movie animation Online citizen Theft Cyberbullying Plagiarism	Google Site Webpage Hyperlink Search features Homepage Recording Pitch Tone Voice control Editing Passwords Digital citizenship Spam Photo alterations Digital enhancement	Filming Editing Transitions Ordering Sound