The Grange Primary School Computing LTP

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
E-Safety themes for all year groups **Project Evolve**	*Health, Well-being and Lifestyle*	*Online Relationships*	*Online Bullying*	*Self-Image and Identity*	*Managing Online Information*	*Privacy and Security*
Nursery	Children will know how to use a camera to take photos.	Children will know how to use the Interactive white board.	Children will know how to select an app on an iPad.	Children will know how to make digital art on the iPad/IWB.	Children will know how to play interactive games on the iPad/IWB.	Children will learn how to operate wind-up toys and pulleys.
Reception	Children will know how to use an iPad to take photos.	Children will know how to use keys on a keyboard to type their name.	Children will know how to use a trackpad to move a cursor.	Children will know how to use the laptop to make digital art using the programme 'paint'.	Children will know how to programme a beebot.	Children will know how to ask google a question using dictation.
Year 1	*Digital Literacy*	*IT*	*Computer Science*	*Computer Science*	*IT*	*IT*
	Computers ***Technology around us – Computer components, keyboard and mouse skills.*** Suggested software or hardware: • Paintz.app	***Using Computer*** ***Digital painting – Choosing appropriate tools in a program to create art.*** Suggested software or hardware: • 2Paint • 2Paint A Picture	***Coding*** ***Moving a robot – Writing short algorithms and programs for floor robots, and predicting program outcomes.*** Suggested software or hardware: • Bee-bots • Barefoot	***Coding*** ***Programming animations – Design & program the movement of characters combining start and input events.*** Suggested software or hardware: • Discovery Education • 2Code	***Using Computer*** ***Digital writing – Create and format text*** Suggested software or hardware: • Microsoft Word • 2 Publish	***Using Computer*** ***Grouping data – Exploring object labels to sort and group objects by properties*** Suggested software or hardware: • 2Investigate
	Digital Literacy	*IT*	*Computer Science*	*Computer Science*	*IT*	*IT*

Year 2	***Computers*** ***IT around us – Identifying ICT and how its responsible use improves our world in school and beyond*** Suggested software or hardware: • Microsoft PowerPoint	***Using Computer*** ***Digital photography - Capturing and changing digital photographs for different purposes*** Suggested software or hardware: • Digital camera • i-Pads	***Coding*** ***Robot algorithms – Create and debug programs using logical reasoning to make predictions.*** Suggested software or hardware: • Discovery Education • Bee-bots • 2Go	***Coding*** ***Programming buttons and instructions – Control one object by using another.*** Suggested software or hardware: • Discovery Education • 2Code	***Using Computer*** ***Making music – Explore rhythms and melodies before creating a musical composition*** Suggested software or hardware: • Chrome Music Lab • 2Explore • 2Beat	***Using Computer*** ***Pictograms – Collect data in tally charts and use attributes to organize and present data on a computer*** Suggested software or hardware: • 2Count • j2e.com/jit5#pictogram
Year 3	*Digital Literacy*	*IT*	*Computer Science*	*Computer Science*	*IT*	*IT*
	Computers and Networks ***Connecting computers – Identifying inputs, processes and outputs, and how devices can be connected to make network.*** Suggested software or hardware: • Any painting programme	***Using Computer*** ***Stop-frame animation – Capture and edit digital still images to produce a stop-frame animation that tells a story.*** Suggested software or hardware: • iMotion • 2Animate	***Coding*** ***Sequence and animation – Make things happen in a sequence, creating simple animations and simulations.*** Suggested software or hardware: • Discovery Education	***Coding*** ***Conditional events – Learn to code with 'if statements', which select different pieces of code to execute depending on what happens to other objects.*** Suggested software or hardware: • Discovery Education	***Using Computer*** ***Desktop publishing – Creating documents by modifying text, images and page layouts for specified purpose.*** Suggested software or hardware: • Adobe Spark • Google Docs • Microsoft Word	***Using Computer*** ***Branching databases – Building and using branching databases to group objects using yes/no questions.*** Suggested software or hardware: • j2data Branch • Pictogram • 2Question
Year 4	*Digital Literacy*	*IT*	*Computer Science*	*Computer Science*	*IT*	*IT*
	Networks ***The internet – Further understanding of networks including WWW.*** Suggested software or hardware: • Various websites	***Computers and Using Computer*** ***Audio editing – Capture and edit audio to produce a podcast.*** Suggested software or hardware: • Audacity	***Coding*** ***Introduction to variables – Use variables to count things and keep track of what is going on, then create simple games which use a score variable.*** Suggested software or hardware: • Discovery Education	***Coding*** ***Repetition and loops – Create loops to repeat instructions. Nest loops inside each other to form more complex repetitions.*** Suggested software or hardware: • Discovery Education • FMS Logo	***Using Computer*** ***Photo editing – Manipulating digital images and reflecting upon impact.*** Suggested software or hardware: • Paint.NET	***Using Computer*** ***Data logging – Recognising how and why data is collected over time, before using data loggers to carry out an investigation.*** Suggested software or hardware: • Data logger

Year 5	*Digital Literacy*	*IT*	*Computer Science*	*Computer Science*	*IT*	*IT*
	Networks ***Sharing information – Identify and explore how information is shared between digital systems.*** Suggested software or hardware: • Google Slides	***Using Computer*** ***Video editing – Planning, capturing and editing video to produce a short film.*** Suggested software or hardware: • Microsoft Photos • Video Pad • iMovie	***Coding*** ***Speed, direction and coordinates – Use numbers to represent things such as how fast objects are moving, and where they are.*** Suggested software or hardware: • Discovery Education	***Coding*** ***Random numbers and simulations - Apply knowledge of randomized code, heading and conditional events to make a game.*** Suggested software or hardware: • Discovery Education	***Using Computer*** ***Vector drawing – Creating images in a drawing program by using layers and groups of objects.*** Suggested software or hardware: • Google Drawings	***Using Computer*** ***Flat-file databases – Using a database to order data and create charts to answer questions.*** Suggested software or hardware: • j2data Database • 2Chart
Year 6	*Digital Literacy*	*IT*	*Computer Science*	*Computer Science*	*IT*	*IT*
	Networks ***Internet communication – Recognising how the WWW can be used to communicate and to be searched to find information.*** Suggested software or hardware: •	***Networks and Using Computer*** ***Designing and creating webpages giving consideration to copyright, aesthetics and navigation.*** Suggested software or hardware: • Google Sites	***Coding*** ***More complex variables – Manipulate inputs to create useful outputs.*** Suggested software or hardware: • Discovery Education • 2Simulate	***Coding*** ***Object properties - Use property values and parameters to store information about objects.*** Suggested software or hardware: • Discovery Education	***Using Computer*** ***3D modelling – Planning, developing and evaluating 3D computer models of physical objects.*** Suggested software or hardware: • Tinkercard • 2DIY3D	***Using Computer*** ***Introduction to spreadsheets – Answering questions by using spreadsheets to organize and calculate data.*** Suggested software or hardware: • Google Sheets