Subject Skills Overview IT and Computing

Year Group	Term					
	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Nursery	**Online safety / Using iPads** **Skill: Using iPads** **Context : Naming we people we trust.**	**Online relationships / Bee bots** **Context: Digi duck for online relationships** **Skill: Basic coding using bee bots.**	**Purple Mash -** **Skill: Opening and closing from a link. Exploration of icons.**	**To be able to use multimedia -** **Skill: To be able to photograph a piece of work that you are proud of. Use of computing in our home**	**Simple coding - Cubetto** **Context** **Use of programming toys - Coderpillar. Record voice using microphones**	**Online Bullying** **Context: identifying ways people can be unkind online. Say how others may feel.**
Reception	**Online Safety & Exploring Mini Mash /2 paint** **Skill:** Mouse control **Context**: Traditional Tales & Nursery Rhymes pinned activities	**Online relationships & Chatterpix** **Skill:** Early mouse control and keyboard skills **Context:** Farm and Christmas pinned activities	**Simple Coding Copyright** **Skill:** To develop confidence using a programmable toy Use of keyboard to name work **Context:** Code-a-pillar and Bee Bot including Apps Naming work on Purple Mash	**Use of IT in our lives. Personal Information** **Skill:** Identify how we use technology in our lives to help us Context: Use of technology in our homes and how it can help us. Simple Coding	**Using technologies for a purpose - coding** **Skill:** To identify how we can use technology to solve problems. **Context**: Cubetto Simple Coding Lego explore Coding / Debug Algorithm	**Using Technologies for a purpose** **Skill:** To recognise how we can use technology to capture our experiences. **Context**: Use of iPads to capture video and images. Using app smashing. SAGE Lego League Lego explore
One	**Online Safety and**	Exploring digital sound	**Making multimedia**	**Action algorithms /**	**Introduction into**	**Programming**

	Exploring technology Skill: Help children to stay safe and understand what technology is . Context: Becoming familiar with the tools and topics of Purple Mash. Understanding that they have 'ownership' over creative work. **Developing Word Processing Skills** Skill: Word Processing Context: CVC words	Skill: Creating, storing and retrieving digital content. Context: Creating simple beats and compositions using digital sound.	**stories** Skill: Typing, electronic drawing tools, animation Context: Using 2Simple/purple mash to create stories linked with topic- Flat Stanley, RE links.	**Lego Discover** Skill: Making predictions, creating and following precise sets of instructions. Context: Lego, six bricks, operating a crane.	**digital art** Skill: Introduce children to a range of digital art. Apply the tools and their skills to a range of artistic styles and genres from painting to photography.	**direction** Skill: Making predictions, creating more advanced algorithms, debugging simple programs Context: Programmable toys, e.g. Beebots or Cubetta.
Two	**Online Safety** Skill: Communicating safely online Context: Sending emails using Purple Mash **Developing Word Processing Skills** Skill: Word Processing Context: High frequency words and phrases.	**Writing in Different Styles** Skill: Word processing; editing the size, style and colour of fonts. Context: Typing up work related to Great Fire of Newcastle, e.g. newspaper article	**An introduction to animation** Skill: Using a range of animation tools, comparing and evaluating different animation resources and websites. Context: Link to Roald Dahl - creating similar characters.	**Finding and Presenting Information** Skill: Safely navigating and evaluating websites, interpreting data. Context: Using data from Science to create pictograms, bar charts and presentations.	**Programming with Scratch Junior** Skill: Making predictions, creating and debugging simple programs. Lego explore Coding Debugging Algorithms	**Spreadsheets** Skill: Using simple formulas in spreadsheets to answer questions and display information. Context: Link to Maths - statistics. Lego explore
Three	**Online Safety** Skill: Keeping	**Animation with Scratch**	**Email** Skill: Safely sending	**Spreadsheets** Skill: Using	**Lego league coding** Skill: Using a range of	**Getting Started with Scratch**

	information online private. Critically searching websites. Context: Looking at different websites and games - discussing their content. **Touch Typing** Skill: Word processing Context: Typing up topic related work.	Skill: Combining programming with animation. Using Scratch's programming language to control movements, actions and backgrounds. Context:	and receiving emails. Adding attachments to emails. Context: Purple Mash Email - Simulated scenario related to topic.	spreadsheets to display data in different ways. Using spreadsheet tools to answer questions. Context: Link to Maths - Statistics.	coding commands including timers and repetition. Debugging codes. Context:	Skill: Programming characters and designing online settings. Context: Creating collecting and racing games.
Four	**Safe searching on the web** Skill: Navigating websites safely, comparing and evaluating search engines and search findings. Context: E-Safety- links to sharing and storing information	**Digital Imagery** Skill: Understanding methods of recreating these with digital art tools and photo editing Context: Mosaics	**Programming Scratch Maze Games** Skill: Designing backgrounds, programming characters, debugging codes. Context: Rainforest Maze Game	**Computational Thinking: Alien Contact** Skill: Problem solving, computational thinking. Context:	**Kodu Sports** Skill: Creating games Context: STEM Week	**3D Design: Digital Modelling** Skill: Creating 3D models (Sketch Up)
Five	**Online Safety** Skill: Recognising appropriate and inappropriate content online. Context: Online Bullying **Spreadsheets** Skill: Using increasingly	**Lego** Skill: Designing, writing and debugging programs. Skill: Using sequencing, selection and repetition in coding. Linking Lego into both modules to programme and execute code	**2Code / Lego** Skill: Designing, writing and debugging programs. Pupils will learn an additional coding language and how to use a range of different commands including timers and repetition.	**Manipulating sound** Skill: Capturing, repeating and sequencing sound patterns. Context: Creating a multimedia story.	What is a computer Skill: Understanding the key components of computers. Context	**Building Collaborative Websites** Skill: Appropriate use of Google tools. Working as a team. Context: Creating a website.

	complicated tools to solve problems and display data. Context: Planning an event.	effectively and accurately.				
Six	**Online Safety** Skill: Recognising more complicated risks of spending time online. Context: Understanding the impact of too much screen time on mental health.	Lego League Skill: Using flowcharts to check and debug programmes. Context: Creating a text-based adventure game.	**Inside the Internet** Skill: Understanding HTML code. Context: Creating web pages.	**Lego League coding project** Skill: Editing videos Context: Creating a video for the Leavers Assembly.	**Manipulating images** Pixlr Sculptris Skill: Photo editing Context: Editing Hokusai artwork Create Canopic Jar	**Creating Instructional Videos** Skill: Designing, creating, manipulating and retrieving digital information. Context: SATS Revision

Online Safety to continue to be threaded throughout the academic year - see separate planning document.

See Enrichment Document for enrichment opportunities throughout the year for each year group.