IT and Computing Curriculum Overview

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 - Codapillar. 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 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 | Exploring digital sound

Skill: Creating, storing and retrieving digital content.

Context: Creating simple beats and compositions using digital sound. | Making multimedia stories

Skill: Typing, electronic drawing tools, animation

Context: Using 2Simple/purple mash to create stories linked with topic- Flat Stanley, RE links. | Action algorithms

Skill: Making predictions, creating and following precise sets of instructions.

Context: Recipes, dance routines, operating a crane. | Introduction into 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. | Programming 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 | 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 | 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 |

	Context: High frequency words and phrases.		characters.			
Three	**Online Safety** Skill: Keeping 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.	**Animation with Scratch** Skill: Combining programming with animation. Using Scratch's programming language to control movements, actions and backgrounds. Context:	**Email** Skill: Safely sending and receiving emails. Adding attachments to emails. Context: Purple Mash Email - Simulated scenario related to topic.	**Spreadsheets** Skill: Using spreadsheets to display data in different ways. Using spreadsheet tools to answer questions. Context: Link to Maths - Statistics.	**Lego league coding** Skill: Using a range of coding commands including timers and repetition. Debugging codes. Context:	**Getting Started with Scratch** 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	**Manipulating sound** Skill: Capturing,	**Micro:bits / Lego** Skill: Designing, writing and	**2Code / Lego** Skill: Designing, writing and	What is a computer	**Building Collaborative Websites**

	inappropriate content online. Context: Online Bullying **Spreadsheets** Skill: Using increasingly complicated tools to solve problems and display data. Context: Planning an event.	repeating and sequencing sound patterns. Context: Creating a multimedia story.	debugging programs.	debugging programs. Context: Creating a playable, competitive game.	Skill: Understanding the key components of computers. Context	Skill: Appropriate use of Google tools. Working as a team. Context: Creating a website.
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.