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 people we trust.	Online relationships / Bee bots Skill: Basic coding using bee bots. Context: Digi duck for online relationships	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	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	Using technologies for a purpose - coding Skill: To identify how we can use technology to solve problems. Context: Cubetto Simple Coding	Using Technologies for a purpose Skill: To recognise how we can use technology to capture our experiences. Context: Use of iPads to capture

			Apps Naming work on Purple Mash	how it can help us. Simple Coding	**Lego explore** Coding / Debug Algorithm	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 / Lego** **Skill**: Making predictions, creating and following precise sets of instructions. **Context**: Twelve bricks, Lego, 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. **Context**: Pointillism, impressionism and watercolours.	**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 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. **Spreadsheets** Skill: Using simple formulas in spreadsheets to answer questions and display information. Context: Link to Maths – statistics.	Programming with Scratch Junior **Skill:** Making predictions, creating and debugging simple programs. **Lego Explore** **Skill:** Coding, debugging and creating algorithms Context: This years theme is linked to masterpieces	Lego Explore **Skill:** Following instructions and creating algorithms, Coding and debugging. Context: This years theme is linked to masterpieces

Three	Online Safety	Purple Mash /Animation with Scratch	Email	Spreadsheets	Getting Started with Kodu	Digital Imagery: patterns in nature
	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.	**Skill**: Combining programming with animation. Using Scratch's programming language to control movements, actions and backgrounds. **Context**: Creating animation linked to Edwardian times	**Skill**: Safely sending and receiving emails. Adding attachments to emails. **Context**: Purple Mash Email – Simulated scenario related to topic.	**Skill**: Using spreadsheets to display data in different ways. Using spreadsheet tools to answer questions. **Context**: Link to Maths Statistics. Lego League Coding: PLZ sessions	**Skill**: Programming characters and designing online settings. **Context**: Creating collecting and racing games.	**Skill**: Collecting, analysing, evaluating and presenting data and information. **Context**: Stone Age Art
Four	Safe searching on the web	Digital Imagery /Lego	Animation with Scratch Maze Games	Computational Thinking: Alien Contact	Kodu Sports	3D Design: Digital Modelling
	Skill: Navigating websites safely, comparing and evaluating search engines and search findings. **Context**: E-	**Skill**: Understanding methods of recreating these with digital art tools and photo editing	**Skill**: Designing backgrounds, programming characters, debugging codes. **Context**:	**Skill**: Problem solving, computational thinking.	**Skill**: Creating games, using a visual programming language **Context**: STEM Week	**Skill**: Creating 3D models (Sketch Up) **Context**: Furniture and viking flagships

		Safety- links to sharing and storing information	Context: Mosaics	Rainforest Maze Game	Context: Creating Binary Coding		
Five		Online Safety Skill: Recognising appropriate and inappropriate content online. Context: Online Bullying Spreadsheets Skill: Using increasingly complicated tools to solve problems and display data. Context: Planning an event.	Lego League Skill: Designing, writing and debugging programs. Coding Context: Lego League: This year's focus masterpieces	Lego League Skill: Designing, writing and debugging programs. Context: Lego League: This year's focus masterpieces	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 Identifying how computers work	Building Collaborative Websites 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:	Lego League Skill: Coding, debugging and creating algorithms to solve problems.	Lego League coding project Skill: Debugging and creating algorithms to solve problems	Spreadsheet Masters Skill: Creating spreadsheets using formula.	Manipulating images Pixlr Sculptris Skill: Photo editing	Inside the Internet Skill: Understanding HTML code. Context: Creating

	Understanding the impact of too much screen time on mental health.	**Context:** Lego League: This years focus masterpieces	**Context:** Lego League This years focus masterpieces	**Context:** Heights and other varying pieces of information	**Context:** Editing Hokusai artwork Create Canopic Jar	web pages.