

Granard Computing Curriculum Map

Year	Autumn		Spring		Summer	
Nursery					Computing systems and networks: Children to explore keyboards and mouse control	
Reception		Computing systems and networks 1: Using a computer Investigating the main parts of a computer and learning how the keyboard and mouse are used to control it.	Programming 1: All about instructions Developing an understanding of how to receive and give instructions while learning why instructions need to be clear and precise.	Computing systems and networks 2: Exploring hardware Investigating different computer hardware parts and learning how to operate a camera.	Programming 2: Bee Bots / Spheros Exploring simple programming by experimenting with a Bee-Bot or Spheros and investigating how hardware responds to commands.	Data Handling: Introduction to data handling Learning how to sort and categorise data and an introduction to branching databases and pictograms.
Year 1	Online Safety Exploring online safety, including how to stay safe online, manage emotions when something causes upset and understand responsibilities as a digital user.	Computing systems: Using computers 1 Exploring different types of computers, their common parts and how they are used in everyday life, while developing an understanding of logging in, using software and saving digital work.	Programming 1: Commands unplugged Exploring commands and instructions through a range of unplugged games and activities while developing an understanding of key programming vocabulary.	Creating media: Digital designers 1 Creating digital content by using simple digital tools to make drawings, text and recordings.	Programming 2: Bee Bots Exploring commands, instructions and errors through programming a Bee-Bot and learning how sequences control movement.	Data Handling: Introduction to data Exploring data by collecting, organising and presenting information using digital tools.
Year 2	Online Safety	Computer systems: Using computers 2	Creating media: Digital designers 2	Programming 1: Algorithms and debugging	Creating media: Digital designers 3	Programming 2: MakeCode

	Learning how to stay safe online by understanding online accounts, passwords and personal information.	Exploring how computers use inputs, programs and outputs to make things happen, pupils identify common input and output devices and recognise how computers are used in everyday life.	Creating digital content with growing independence by selecting appropriate tools and making simple decisions about presentation.	Exploring algorithms and debugging through unplugged activities and online programming games.	Creating digital content for a specific purpose and audience by combining text and images effectively.	Exploring how to use 'MakeCode' by investigating what different programming blocks do and how they control outcomes.
Year 3	Online Safety Further exploring online safety, including the difference between beliefs, opinions and facts, privacy settings, protecting personal information and responding to upsetting content online.	Programming 1: Scratch Investigating programming through Scratch by creating animations and learning key coding concepts.	Computing systems: Connecting Devices Exploring computers, their components and peripherals, including how devices connect and work together in networks to share information.	Programming 2: MakeCode loops Further developing programming skills using the MakeCode platform.	Creating media: Creating a website Creating web content by designing and building simple web pages that combine text and images.	Data Handling: Exploring branching databases Exploring how branching databases organise and classify information using yes/no questions.
Year 4	Online Safety Developing online safety by learning how people connect through online platforms and games. Pupils learn to recognise unacceptable behaviour, understand the risks of	Programming 1: Further coding with Scratch Designing and programming a game using variables, sensors and 'if' statements to control outcomes and interactions.	Computing systems: Connecting networks Exploring how local networks connect to the internet and how people use the World Wide Web.	Programming 2: Computational thinking Developing computational thinking skills through decomposition, pattern recognition, abstraction and algorithm design to solve problems.	Computing systems: Managing digital information Understanding how digital information is stored, organised and shared across devices and networks.	Creating media: Creating digital images Editing digital images by capturing, enhancing and modifying photographs using a range of digital tools, including simple AI features.

	communicating with strangers and know how to respond to problems and seek help from a trusted adult.					
Year 5	Online Safety Investigating online communication, personal privacy and the impact technology can have on health and wellbeing	Programming 1: Scratch - Music Developing programming and music skills through creating digital sounds, beats and melodies using coding techniques.	Computing systems: Websites, search and storage Exploring how information travels across the internet to display webpages, how search engines rank results and how file sizes affect storage choices.	Programming 2: Micro:bit Investigating how to program the BBC micro:bit by creating interactive projects using sensors, variables and conditional statements.	Battersea Project (Wandsworth): Using iPads to create projects, art and movies	
Year 6	Online Safety Learning about social media and online platforms by examining how content is shared and viewed online. Pupils consider how online identities are shaped, recognise online risks and learn how to use tools such as block, mute and report to stay safe.	Programming 1: Scratch – Pixels and positions Exploring block-based programming in Scratch, focusing on pixels, coordinates, degrees, variables, conditional statements, loops and debugging to control movement and create interactive programs.	Computing systems and networks: Exploring AI Exploring what AI is, how it generates text, images and code and the ethical implications of its use.	Programming 2: Exploring python Exploring text-based programming with Python, pupils learn how syntax and nested loops control program outcomes and develop their ability to identify and fix syntax and logic errors through careful debugging.	Computing systems and networks: Machine learning Exploring how computers can learn from data and considering how training data affects outcomes. Pupils investigate how machine learning is used in everyday life, identify patterns in data and consider the benefits, limitations and risks of AI systems.	Skills showcase: Inventing a product Bringing together creating media skills developed throughout primary school, pupils plan and create a multimedia project. They combine text, images, audio and video to communicate information for a specific audience, evaluating and refining their work to improve its effectiveness

