RADDLEBARN PRIMARY SCHOOL SUBJECT OVERVIEW IN COMPUTING

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2	Context/ Resources
Nursery Reception	*In the **EYFS,** Computing comes under the area of learning: **Children's personal, social and emotional development (PSED) and Understanding the world*** *In Nursery & Reception, the children have access to computing equipment and technology to explore their own interests and ideas which supports creativity, independence and challenge. The provision for creative activities, skills, knowledge and understanding is primarily delivered through **Continuous Provision** and it is the role of the adult to observe the child's creative interests assess their skill level, plan and then facilitate the child's next step in their learning in order to embed and deepen their artistic skills. This is done through **Planning in the Moment.** Children within Nursery, attend for different lengths of time **e.g. 15 or 30 hours. It is therefore vital that children have time, space, appropriate resources** that are matched to their level of development; for example, iPad's to use the camera tool to zoom in and use technology safely and accurately. **Above all plenty of opportunities to repeat activities and skills** so that they can begin to embed them.* *There may be times when the themes and topics from each year group lend themselves to a particular skill or computing strand.* *In the Nursery our curriculum is based on core aspects of computing using Development Matters for 3-4 year olds and is delivered throughout the year and not by terms.* • ***Select and use activities and resources, with help when needed. This helps them to achieve a goal they have chosen, or one which is suggested to them.*** • ***Develop their sense of responsibility and membership of a community.*** • ***Become more outgoing with unfamiliar people, in the safe context of their setting*** • ***Show more confidence in new social situations.*** *In Reception our curriculum is based on core aspects of computing using Development Matters for 4-5 year olds and is delivered throughout the year and not by necessarily by term unless the subject area lends itself to a particular topic or artist. The core themes are* • ***Increasingly follow rules, understanding why they are important. Remember rules without needing an adult to remind them*** • ***Show resilience and perseverance in the face of challenge.*** • ***Know and talk about the different factors that support their overall health and wellbeing: i.e. amounts of 'screen time'*** • ***Explore how things work***						
Year 1	**1.1 Online Safety and Exploring Purple Mash** Use technology safely and respectfully, keeping personal information private; identify where to go for help and support. **1.2 Grouping and Sorting** Sort items online using a variety of criteria.	**1.3 Pictograms** Record data using a pictogram. **1.4 Lego Builders** Understand what algorithms are (a set of instructions); follow and create simple instructions.	**1.5 Maze Explorers** Understand programs execute by following precise and unambiguous instructions. Understand how to create and debug a set of instructions.	**1.6 Animated Story Books** Use technology purposefully to create, organise, store, manipulate and retrieve digital content. Eg Read and create e-book.	**1.7 Coding** Understand what coding means. Create unambiguous instructions for a simple program to run, create code blocks to add exciting features.	**1.9 Technology Outside School** Understand the meaning of technology and identify examples of technology in and outside school. **2BeSafe**	

Year 2	**2.2 Online Safety** To use technology safely and respectfully (internet search, email & digital footprint). **2.3 Spreadsheets** Using spreadsheets to copy, paste, add total amounts and create tables/block graphs.	**2.1 Coding** Design a program using simple algorithm to achieve a desired result. Code a program using a variety of objects, actions, event and outputs successfully.	**2.4 Questioning** Use a binary tree to separate items and answers questions. To use a database to search for information.	**2.5 Effective Searching** To search the internet effectively through understanding search engines and web search results to find information.	**2.6 Creating Pictures** To look at the work of different artists and use 2Paint to create work in their style.	**2.7 Making Music** To explore, edit and combine sounds using 2Sequence. To record or upload sounds. **2.8 Presenting Ideas** Use a variety of software to manipulate and present digital content and information.	
Year 3	**3.2 Online Safety** To use technology responsibly (Safe passwords, Fake news & age restrictions on digital media). **3.3 Spreadsheets** Use spreadsheets to create graphs, use tools to compare different numbers and understand and use cell location.	**3.1 coding** Create a sequential algorithm, use a flowchart design to create the code. Use X and Y properties, if statements, create a variable and repeat an action; start debugging a program.	**3.4 Touch Typing** To type with both hands and know where all keys are.	**3.5 Email** Learn how to open and respond to an email safely and add an attachment.	**3.6 Branching databases** To understand and create a branching database.	**3.7 Simulations** To explore, analyse and evaluate a simulation. **3.8 Graphing** Present results in a range of graphical formats.	
Year 4	**4.2 Online Safety** To recognise acceptable and unacceptable behaviour (identity theft, risk and benefits of software & apps, plagiarism & screen time).	**4.1 Coding** Use sketch or storyboard to represent a program design. Set/change the variable using 'If/else' statements. Use Repeat/Until command, timers and counting machines and know what decomposition and abstraction.	**4.11 - micro:bits** Learn how to program a micro:bit device. useful for children to have had some experience of programming using 2Code	**4.4 Writing for Different Audiences** Formatting text font size and style to create news reports and letters. Using 'Desktop Publishing' Module ***from Teach Computing***	**4.5 Logo** Use Logo to input instructions to create letters and shapes of increasing complexity. **4.6 Animation** Use 2Animate to create stop motion animations.	**4.7 Effective Search** To locate and analyse information from the web for clues about credibility and reliability of the content. **4.8 Hardware Investigators** Understand and recall the different parts that make up a computer.	

Year 5	**5.2 Online Safety** To be discerning in evaluating digital content (Maintain secure passwords, consider the impact of sharing inappropriate content & reliability of sources online). **5.4 Databases** Create a database and add field information and know how to word questions so that they can be answered using a database search.	**5.1 Coding** Review and explore number and text variables. Create a playable, competitive game combining the use of variables, if/else statements and repeats. Explore the launch command and use of buttons within a program that launch other programs or open websites.	**5.3 Spreadsheets** Use formulae, tools and text variables to solve real-life problems eg conversions of measurements.	**5.5 Game Creator** Create a game by designing a setting, characters, animations and sound effects Write informative instructions to play their game & evaluate games.	**5.6 3D modelling** Use 2Design and Make to create a 3D model for a purpose.	**5.7 Creating Media Video Production** Learn how to create short videos using different filming techniques, storyboarding and editing skills. ***(from Teach Computing)***	
Year 6	**6.2 Online Safety** Know about the risks of sharing location, insecure websites, spoof websites, phishing and other email scams. Understand the impact of sharing content online and how it persists over time. **6.3 Spreadsheets** Using spreadsheets for planning a school event.	**6.1 Coding** Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems. Explore how to include interactivity in programming and to make a text-based adventure game. ***(a module from Teach Computing)***	**6.4 Blogging** Identify the purpose and features of blogs and be able to create a blog. To contribute to existing blogs by commenting.	**6.5 Text Adventures** Make a story or map-based adventure. To code an adventure.	**6.6 Networks** Know the difference between the WWW and the internet. To know and understand how networks work. **6.7 Coding** Sensing Movement using a Micro: bit **(a module *from Teach Computing)***	**6.7 Quizzing** Use 2DIY, 2QUiZ and 2Investigate to create quizzes for different purposes.	