

GUARDIAN ANGELS' RCPS

Computing Progression of Skills

	Learning Journey 1	Learning Journey 2	Learning Journey 3
Nursery	- Mouse and Trackpad Skills By the end of the unit, children will be able to... Hold a computer mouse with their finger on the correct buttons. - Drawing Skills By the end of the unit, children will be able to... Draw pictures on the computer to go with my work. - Robots By the end of the unit, children will be able to... Make a floor robot move.	- Sounds By the end of the unit, children will be able to... Make music using a computer - Photography By the end of the unit, children will be able to... Take photos using a digital device. - Technology Around Us By the end of the unit, children will be able to... Talk about what technology is used at home.	- Hardware By the end of the unit, children will be able to... Understand why I need to take care with electronic devices and their plugs and wires. - Safety and Privacy By the end of the unit, children will be able to... Explain how my work on the computer belongs to me and other people's work belongs to them. - Quizzes By the end of the unit, children will be able to... Understand what a quiz is.
Reception	- Mouse and Trackpad Skills By the end of the unit, children will be able to... Use a mouse to make the cursor move around the computer screen where they want it to go. - Keyboard Skills By the end of the unit, children will be able to... Use the different inputs of a computer keyboard. - Drawing Skills	- Sounds By the end of the unit, children will be able to... Add sound effects to their work. - Photography By the end of the unit, children will be able to... Use the webcam in Mini Mash. - Technology Around Us By the end of the unit, children will be able to... Talk about what technology is used in the world around me.	- Hardware By the end of the unit, children will be able to... Identify the parts of a computer and what they are for. - Safety and Privacy By the end of the unit, children will be able to... Know who can help them when they are feeling worried. - Quizzes By the end of the unit, children will be able to...

	By the end of the unit, children will be able to... Try the different tools that I can draw with on the computer. - Robots By the end of the unit, children will be able to... Control the forwards, backwards and rotation of a floor robot one step at a time.		Play games that ask them questions and answer using the tools provided.
Year 1	- Creative Computing By the end of the unit, children will be able to... • Select colours and painting effects in 2Paint. • Control a computer mouse. • Use a mouse or finger (device dependent) to perform tasks. - Data Explorers Creating By the end of the unit, children will be able to... • Identify criteria that can be used to sort items into groups. • Sort items using criteria. • Logically sort items into groups. - Following Instructions By the end of the unit, children will be able to... • Think carefully about how to word oral instructions to achieve a desired outcome. • Give clear, precise and concise instructions for someone to follow. • Test whether instructions have been followed by comparing the outcome to the instructions. • Examine instructions to see where confusion might have arisen.	- Animated Stories By the end of the unit, children will be able to... • Identify differences and similarities between traditional books and digital books. - Coding By the end of the unit, children will be able to... • Create instructions in the form of simple algorithms with attention to the order and the level of detail. • Interpret what a piece of code means.	- Technology Around Us By the end of the unit, children will be able to... • Recognise examples of technology. • Describe the purpose of common types of technology. - Making Beats By the end of the unit, children will be able to... • Identify differences and similarities between music played using instruments and digitally composed music.

Year 2	- Route Explorers By the end of the unit, children will be able to... • Input commands in 2Go. - The Internet By the end of the unit, children will be able to... • Explain the difference between the Internet and the World Wide Web, recognising that they describe different things. - Creating Pictures By the end of the unit, children will be able to... • Explore the range of painting effects in 2Paint. • Observe how the painting effects give different results. • Produce digital images in traditional art styles using digital painting effects.	- Spreadsheets By the end of the unit, children will be able to... • Identify a cell by its name. • Enter data into a cell and move between cells with ease. • Explain the difference between a row and column. - Questioning By the end of the unit, children will be able to... • Collect simple data by asking questions and recording answers. • Use 2Question accurately. • Use 2Count accurately.	- Coding By the end of the unit, children will be able to... • Follow a written algorithm. • Identify required events, objects and actions from a program algorithm. - Presenting Ideas By the end of the unit, children will be able to... • Organise ideas clearly on a concept map in 2Connect. - Making Music By the end of the unit, children will be able to... • Identify if sounds are made by real instruments or made by a computer. • Identify the sound of different instruments, whether live or digitally made. • Use 2Sequence accurately.
Year 3	- Email By the end of the unit, children will be able to... • Make use of 2Email to communicate within school. • Recognise the differences between digital and non-digital communication methods. • Explain different digital communication methods such as instant messaging, email and video calls. - Route Planners By the end of the unit, children will be able to...	- Spreadsheets By the end of the unit, children will be able to... • Create and open a spreadsheet to record and organise data effectively. • Add, rename, and organise multiple sheets within a single spreadsheet. - Coding By the end of the unit, children will be able to... • Identify features of a flowchart including the starts, inputs, outputs, delays such as a timer, actions and events. • Follow the flow of the chart and interpret what it is representing.	- Presenting Ideas By the end of the unit, children will be able to... • Locate and click on a blank presentation. • Delete existing text boxes on a blank slide. • Insert new text boxes manipulating size and position. • Insert word art into a presentation slide. • Insert images into a presentation slide. • Resize and manipulate images appropriately on a slide. - Touch Typing

	- Input several commands into a sequential algorithm layout and run this code to move the turtle along the programmed route. - Reset the turtle to the starting position to re-run the code. - Branching Databases By the end of the unit, children will be able to... - Work through all routes of a branching database to test whether it works as intended. - Identify and fix bugs in a database.	Use a flowchart as part of a planning process for designing a program.	By the end of the unit, children will be able to... - Use the left hand to type letters. - Use the right hand to type letters. - Locate the ridges on keys F and J to find where the index fingers should rest on the keys. - Position the left and right hands correctly. - Build up to combining left and right-hand use to type words. - micro:bit By the end of the unit, children will be able to... - Explain that a micro:bit is a piece of hardware that can have code created for it that makes use of its inputs and outputs. - Recognise and locate key hardware components on the micro:bit such as its display, speaker and accelerometer.
Year 4	- Unpacking Hardware and Software By the end of the unit, children will be able to... - Identify the functions and common components of different software tools and relate them to the tasks those tools perform. - Describe a process in terms of inputs, hardware and software processing and outputs. - Animation By the end of the unit, children will be able to... - Use 2Animate to make simple animations using the specific animation functionality. - Logo	- Sound Stories By the end of the unit, children will be able to... - Identify where a voice or sound effect might make a recorded story more exciting and engaging. - Create a range of sound effects using everyday items. - Use the library of music and sound effects on 2Cast. - Effective Searching By the end of the unit, children will be able to... - Explain how search results are selected and ranked.	- Making Music By the end of the unit, children will be able to... - Create and record their own piece of music on Busy Beats. - Introduction to AI By the end of the unit, children will be able to... - Explain what AI is and provide some practical example uses of it. - Explain that AI learns from data and therefore more accurate data will lead to better quality outputs. - Explain what generative AI is. - Describe the different actions AI can perform with examples for: Finder,

	By the end of the unit, children will be able to... • Write and save Logo procedures. • Call the procedures within their code. • Consider how best to use procedures to make their code efficient.	• Look through search results and evaluate which could be the most useful. - Coding By the end of the unit, children will be able to... • Identify 'if' and 'if/else' control blocks. • Read code that includes selection to determine what the program will do. • Create selection within 2Code using 'if' and 'if/else' statement blocks. • Debug programs that use selection. • Nest an if/else block inside an if/else block to give a user different validation options.	Personaliser, Assistant, Organiser and Maker. - micro:bit By the end of the unit, children will be able to... • Explain what the accelerometer is and how it can check for changes in movement. • Explain what the light sensor is and how this can be used to detect light level changes. • Write code that uses light sensors and/or accelerometer inputs.
Year 5	- Quizzing By the end of the unit, children will be able to... • Design successful quizzes that meet a specific brief by making use of the full functionality within 2Quiz. - Databases By the end of the unit, children will be able to... • Sort, group and arrange information in a database. • Search for information in a database. • Answer questions involving the interrogation of a database. - Game Creator By the end of the unit, children will be able to... • Make a 3D game using the key functions of the 2DIY 3D game creator tool.	- Spreadsheets By the end of the unit, children will be able to... • Create and edit formulas (e.g. =A2*B2, =A3+B3) and apply them across cells to update calculations efficiently. • Format spreadsheets with headings, consistent layout, neat tables and correctly labelled graphs to improve readability. - Coding By the end of the unit, children will be able to... • Use tags to write code for several objects in one block of commands facilitated by the computer-generated variables for tagged objects. • Use tabs to organise code. • Use functions to reduce the need to repeat blocks of code and make the program easier to read.	- Concept Maps By the end of the unit, children will be able to... • Create a concept map using 2Connect. • Add nodes and create linked ideas. • Structure ideas into categories and sub-categories. - Coding External Device By the end of the unit, children will be able to... • Write if something is an output or an input. • Define what an external device is. • Start coding using external device code blocks. • Use a QR code to connect an external device. • Play their simple code. - micro:bit

	- Create useful instruction screens for players - Evaluate games made by their peers using given criteria. - Read evaluations of their game from others. - Make appropriate improvements to their game.	- Word Processing By the end of the unit, children will be able to... - Recognise different documents that can be produced using a word processor. - Open new blank documents and existing documents. - Identify a range of templates that can be used to create documents. - Navigate around the main toolbar including sub-toolbars for individual objects. - Expand toolbar categories to show additional options. - Save a document and rename it. - Select specific words to format. - Type sentences and then format them accordingly.	By the end of the unit, children will be able to... - Identify event blocks. - Code using an event block to initiate a program. - Nest code that is to be run inside an event block.
Year 6	- Graphing By the end of the unit, children will be able to... - Create a comparative bar chart using the 2Graph tool. - Present the graph with a title, key and axis labels. - Export graphs from 2Graph and import them into a 2Publish file. - Blogging By the end of the unit, children will be able to... - Use an appropriate hook for a blog post by including either a quote, a story, a question or an observation to grab the reader's interest. - Follow the plan, draft, revise and edit process before publishing a blog post.	- Coding By the end of the unit, children will be able to... - Write code to clone objects and loop through the clones to change their attributes. - Introduction to Python By the end of the unit, children will be able to... - Use language syntax correctly for simple programs which includes the use of brackets, quotes, indents and correct case letters. - Spreadsheets By the end of the unit, children will be able to...	- 3D Modelling By the end of the unit, children will be able to... - Use 2Design and Make accurately, select models which fit their design best and adapt them where necessary. - Spot problems in their own 3D models on 2Design and Make and make adaptations where necessary. - Add textures to the model using the painting tools. - Use the design slider to alter the width of the model. - Binary By the end of the unit, children will be able to... - Explain that the 0 and 1 integers in binary relate to the millions of switches

	- Data Detectives By the end of the unit, children will be able to... • Use the filter tool to create conditions. • Use the grouping tool to group related information together as part of a query. • Use the calculate tool to apply calculations to selected data that provides meaningful results. • Use the sort tool to change the order records are presented according the field selected and the value order (increase/decrease). - Networks By the end of the unit, children will be able to... • Identify types of computer networks locally and globally. • Explain the hardware resources that a network might share.	• Define what is meant by a formula on a sheet. • Navigate around a sheet by clicking in a cell or typing cell reference. • Write simple formula related to the rules of calculation. • Use the series fill function. • Use formulae to change calculations automatically when data entered is changed.	within the computer being in an off state (0) or and on state(1). • Recognise when information is transferred and turned into action. For example, the letter 'A' appearing on the screen when the user types 'A' on the keyboard. - micro:bit By the end of the unit, children will be able to... • Create variables that count the number of times a pin input has been detected and use this variable to display as an output. • Use text, image and sound outputs when an input is detected. • Use the sleep command to control when code is executed.
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