

GUARDIAN ANGELS' RCPS

Computing Progression of Knowledge

	Learning Journey 1	Learning Journey 2	Learning Journey 3
Nursery	- Mouse and Trackpad Skills By the end of the unit, children will know... A mouse is used to make the cursor move around the computer screen - Drawing Skills By the end of the unit, children will know... Pictures can be created on a digital device. - Robots By the end of the unit, children will know... A digital toy can be moved using a computer.	- Sounds By the end of the unit, children will know... Music can be made on a digital device. - Photography By the end of the unit, children will know... Photographs are pictures that are taken on a digital device. - Technology Around Us By the end of the unit, children will know... Technology is all around us.	- Hardware By the end of the unit, children will know... Why people need to take care with electronic devices and their plugs and wires. - Safety and Privacy By the end of the unit, children will know... The work on my computer belongs to me and other people's work belongs to them. - Quizzes By the end of the unit, children will know... A quiz is a game where you answer questions.
Reception	- Mouse and Trackpad Skills By the end of the unit, children will know... You need to use a mouse accurately to allow it to perform how you wish. - Keyboard Skills By the end of the unit, children will know... There are many different keys on a keyboard, all with different functions. - Drawing Skills	- Sounds By the end of the unit, children will know... Sound effects can be added to digital work using different tools. - Photography By the end of the unit, children will know... The webcam on a digital device can be used to take photographs. - Technology Around Us	- Hardware By the end of the unit, children will know... A computer had many features and functions. - Safety and Privacy By the end of the unit, children will know... To be safe online I need to keep things private and talk to a grown up if I am worried. - Quizzes

	By the end of the unit, children will know... Tools on a digital device can change the picture that has been created. - Robots By the end of the unit, children will know... A digital toy can be controlled using commands.	By the end of the unit, children will know... Technology is in our homes and in the wider community.	By the end of the unit, children will know... A quiz can have different types of questions and ways to answer the questions.
Year 1	- Creative Computing By the end of the unit, children will know... Art can be created using digital tools. - Data Explorers Creating By the end of the unit, children will know... Items can be grouped using a range of criteria, and a logical process should be used when doing so. - Following Instructions By the end of the unit, children will know... To achieve a specific effect when building something, accurate instructions must be followed.	- Animated Stories By the end of the unit, children will know... There are differences between traditional books and digital books. - Coding By the end of the unit, children will know... Computer programs work by following instructions called algorithms. These are written as computer code that the computer can interpret.	- Technology Around Us By the end of the unit, children will know... Technology is something that uses scientific knowledge to solve problems or invent useful tools. - Making Beats By the end of the unit, children will know... There are differences between music played using musical instruments and digitally created music.
Year 2	- Route Explorers By the end of the unit, children will know... The combination of a direction and a distance is known as a command. - The Internet By the end of the unit, children will know... The Internet is a global network of connected computers around the world.	- Spreadsheets By the end of the unit, children will know... A spreadsheet is a program that organises data in rows and columns. - Questioning By the end of the unit, children will know... Data is information that can be collected, recorded, and presented in different ways.	- Coding By the end of the unit, children will know... In computing, a set of instructions is known as an algorithm. Steps in an algorithm must be followed to achieve the intended outcome. - Presenting Ideas By the end of the unit, children will know...

	- Creating Pictures By the end of the unit, children will know... Digital art tools usually have a choice of painting effects. Painting effects can be combined to help a user make pictures of varying styles.		A presentation is a way to share ideas, information, or stories with others. - Making Music By the end of the unit, children will know... Live, instrumental music is created by real instruments and digital music is created by using a computer.
Year 3	- Email By the end of the unit, children will know... There are different methods of communication and they each have strengths and weaknesses. Emails are a form of digital communication. - Route Planners By the end of the unit, children will know... Routes can be programmed to perform more than one command in a sequence. - Branching Databases By the end of the unit, children will know... A database is a collection of data organised in a way that it can be searched, and information found easily.	- Spreadsheets By the end of the unit, children will know... A spreadsheet is a digital tool used to organise and analyse data. A sheet is one page within a spreadsheet file and that several sheets can exist in one file. - Coding By the end of the unit, children will know... Flowcharts are a type of diagram that use specifically shaped labelled boxes and arrows to represent an algorithm as a diagram.	- Presenting Ideas By the end of the unit, children will know... You can use Presentation software to create and display information to an audience that is clear and engaging. - Touch Typing By the end of the unit, children will know... Typing is the action or skill of writing something by means of a keyboard (physical or virtual). - micro:bit By the end of the unit, children will know... A micro:bit is a tiny computer which needs instructions in code to make it work.
Year 4	- Unpacking Hardware and Software By the end of the unit, children will know... The word 'technology' describes using scientific knowledge to design and make tools, systems or machines that help solve problems or make tasks easier. - Animation By the end of the unit, children will know...	- Sound Stories By the end of the unit, children will know... An audiobook is a story or book read aloud and recorded for people to listen to. - Effective Searching By the end of the unit, children will know... A search engine works by collecting and organising vast amounts of data from webpages across the internet.	- Making Music By the end of the unit, children will know... In digital music, rhythm is made up of sample sounds. A sample is a short recording of a sound that can be used in music, such as a drumbeat. - Introduction to AI By the end of the unit, children will know...

	Animation software has specific functions that support the animation of still images such as static backgrounds, onion skinning and copying frames. - Logo By the end of the unit, children will know... Logo is a text-based coding language in which commands are written to control the movement of a screen turtle.	- Coding By the end of the unit, children will know... Selection in a program means that it has a decision command that will run different procedures dependent on whether a condition is met or not.	Artificial Intelligence is a type of technology that can make predictions, take actions, and create content, by learning from data. - micro:bit By the end of the unit, children will know... Sensor inputs can be used to detect changes in the environment.
Year 5	- Quizzing By the end of the unit, children will know... Within 2Quiz, there are different types of quiz questions, suitable for different purposes. - Databases By the end of the unit, children will know... Database tools support interpreting data using functionality including sorting, filtering, grouping and searching. - Game Creator By the end of the unit, children will know... There are criteria which determine the playability of a video game.	- Spreadsheets By the end of the unit, children will know... Formulas allow spreadsheets to perform calculations automatically, including addition, subtraction, multiplication, division. - Coding By the end of the unit, children will know... The way that code is written and structured can improve the ability to debug it, simplify the code and run it more efficiently. - Word Processing By the end of the unit, children will know... A word processing tool can be used to create a range of documents.	- Concept Maps By the end of the unit, children will know... A concept map is used to organise ideas and show how they are linked. - Coding External Device By the end of the unit, children will know... External devices can be used to control a coded program. - micro:bit By the end of the unit, children will know... Inputs from an accelerometer, button, pin or sound can be used to initiate a program.
Year 6	- Graphing By the end of the unit, children will know... Graphing helps to make sense of datasets and draw conclusions related to the collected data - Blogging	- Coding By the end of the unit, children will know... Cloning is a process where additional objects can be created while the program is running. - Introduction to Python	- 3D Modelling By the end of the unit, children will know... Designers use CAD (Computer Aided Design) to create accurate drawings or 3D Models on a screen. - Binary

	By the end of the unit, children will know... A blog is a regularly updated webpage, written about a particular topic. - Data Detectives By the end of the unit, children will know... A database contains data organised in such a way that it can be queried to find useful information. - Networks By the end of the unit, children will know... A network describes a group of connected computers that can share information and hardware resources.	By the end of the unit, children will know... Python is a text-based coding language. - Spreadsheets By the end of the unit, children will know... Formulae can be entered into a spreadsheet; this can save time and make working more efficient.	By the end of the unit, children will know... Binary is how data in a computer is saved and processed to make everything happen. - micro:bit By the end of the unit, children will know... A micro:bit has pins that can be used to detect inputs.
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