Computing Medium Term Plan

Year 3 Computing	Autumn	Spring	Summer
Unit of work	**Comic Creation** **Digital Story Boards** **Digital Art** **Coding – Scratch (Hour of Code)**	**Music Creation** **Coding – Kodu** **Typing**	**3D Design** **Document Editing and creation** **Infographics** **Branching Databases**
Link to NC programme of study	Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals. Design, write and debug programs that accomplish specific goal, including simulating physical systems. Use sequence and repetition in programs; work with various forms of input.	Create content that accomplish given goals. Design, write and debug programs that accomplish specific goal. Use sequence and selection in programs; work with various forms of input.	Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals. Collect, classify and present data.
What we need to know	To know how to design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts.	To know how to use sequence, selection, and repetition in programs. To use logical reasoning to explain how some simple algorithms work and to detect	To know how to use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content.

		and correct errors in algorithms and programs. To know how to use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.	To know how to select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.
Vocabulary	Password, internet, blog, concept map, username, website, webpage, spoof website, PEGI rating.	Action, algorithm, bug, code block, code design, command, debug, design mode, event, if, input, output, object, repeat, timer, properties, computer simulation, selection, variable.	Advance mode, copy and paste, columns, cells, delete key, equals tool, spin tool, move cell tool, rows, spreadsheet.
Disciplinary Knowledge	Add, resize and organise colour or picture backgrounds. Add, resize, organise characters/objects to different panels. Add narration using text and direct speech using speech bubbles. Save comic with name and title. Add audio recordings. Add and edit backgrounds. Add and edit characters, including changing posture, expression and clothing. Add narration and speech bubbles, including formatting text. Duplicate objects to match scenes. Search for objects to use. Use various lines and fill tools plus copy/paste and rotation to create pattern	Create a 3D place using various design tools. Write a program to control a character using inputs. Write a program with conditions to create an if statement (If the character touches an object it will disappear). Add a multi-player aspect. Write a program with variables (scoring system). Program operators (equals) to achieve a score and win game. Create a 3D place using various design tools. Write a program to control a character using inputs. Write a program with conditions to create an 'if' statement (If the character touches an object it will disappear). Add a multi-player aspect.	Understand and use 3D space on a grid. Design cities/towns for a purpose and to a budget. Re-create or design familiar 3D models using cubes, such as tables and chairs. Use chisel tool to improve and adapt models. Colour individual blocks or whole models. Copy and paste text and images. Find and replace words. Format text for a purpose. Edit images inside documents. Add bullet points to make lists. Experiment with keyboard shortcuts. Understand what an infographic is and why we use them. Search for and add suitable graphic

	effects. Use shapes, fill, copy/paste, zoom and flip to create reflective symmetry effects. Use stamps, copy/paste, layers and multiple frames to create animated GIF computer game graphics. Design, write and debug programs that accomplish specific goals. (Including outputs) Use repetition in programs. Work with various forms of inputs; keyboard, mouse and touch screen. Identify input/output devices Write programs that simulate physical systems.	Write a program with variables (scoring system). Program operators (equals) to achieve a score and win game. Use the correct hand position and fingers for touch typing. Develop and assess my touch-typing skills. Understand how to put a keyboard back together.	elements. Add and format suitable titles and text. Label an image using arrows. Add and label objects. Ask questions to sort (classify) objects correctly.