Computing – Year 3

Computing intent		Vocabulary	
Aims	• can understand and apply the fundamental principles and concepts of computer science, including abstraction, logic, algorithms and data representation • can analyse problems in computational terms, and have repeated practical experience of writing computer programs in order to solve such problems • can evaluate and apply information technology, including new or unfamiliar technologies, analytically to solve problems • are responsible, competent, confident and creative users of information and communication technology.	animation, flip book, stopframe, frame, sequence, image, photograph, setting, character, events, onion skinning, consistency, evaluation, delete, media, import, transition digital device, input, process, output, program, digital, non-digital, connection, network, switch, server, wireless access point, cables, sockets Scratch, programming, blocks, commands, code, sprite, costume, stage, backdrop, motion, turn, point in direction, go to, glide, sequence, event, task, design, run the code, order, note, chord, algorithm, bug, debug, code.	
	Knowledge and skills	**Useful Units**	**Outcomes**
Digital Literacy	• use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. • Understand the opportunities networks offer for communication and collaboration. • use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content.	Connecting Computers Stop-frame Animation Sequencing Sounds	Understanding digital devices and the benefits of them working together in networks Create a stop-frame animation Design and programme a selection of motion and sound featuring sequences
Information Technology	• 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. • use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content.	Connecting Computers Stop-frame Animation Sequencing Sounds	**Cross-curricular links** **Education for a Connected World links** Privacy and Security • I can describe simple strategies for creating and keeping passwords private. **Maths** • **Number and place value:** solve number problems and practical problems involving these ideas. **Art** • to improve their mastery of art and design techniques, including drawing, painting and sculpture with a range of materials [for example, pencil, charcoal, paint, clay] **English** • Pupils should be taught to: draft and write by: in narratives, creating settings, characters and plot • Pupils should be taught to: proof-read for spelling and punctuation errors
Computer Science	• design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. • use sequence, selection, and repetition in programs; work with variables and various forms of input and output. • use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs. • understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration. • use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content.	Connecting Computers Stop-frame Animation Sequencing Sounds	