Computing Progression Document
Computing 26-27
Miss Lewis

Computing Intent Statement:

Technology is ever present and ever changing in our world today and we would like all children to enjoy using technology safely and confidently across a range of different areas of the curriculum. We want to ensure that children find, analyse, explore, exchange and create information in a creative way. Learning and teaching within the computing curriculum empowers children to become digitally confident in their daily lives which helps to prepare them to become independent users of technology beyond the classroom.

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Strand	Computing Systems and Networks	Creating Media	Data and Information	Programming A	Programmming B	Digital Literacy (Online Safety)
Key Stage One						
Year 1 Key Questions	What technology is around us and how do we use it safely?	How can we create and change digital media such as images and writing?	How can we collect, group and represent data?	What is an algorithm and how do robots follow instructions?	How can we create and edit digital writing to communicate ideas?	How do animations work and how do we create a simple animation?
Year 1 Progression of Units	Technology Around Us	Digital Painting	Grouping Data	Moving a Robot	Digital Writing	Introduction to Animation
Progression Statements: What Pupils will learn	• Identify technology in school and at home and explain its purpose • Name and use the main parts of a computer; log in and out with support • Explain simple rules for responsible use of devices	• Use simple digital tools to paint using shape, line and colour • Compare digital and non-digital painting and discuss choices • Enter, edit and format short texts (font, size) to communicate meaning	• Label, group and sort objects by attributes • Recognise that data can be grouped to answer questions	• Describe an algorithm as a sequence of precise steps • Program a floor robot with simple commands and predict its route • Debug by spotting and fixing mistakes in instructions	• Create simple movement by sequencing images (frames) • Explain that animation is made from a series of images	• Keep personal information private and know who to tell if worried • Recognise kind and unkind behaviour online

Year 2 Key Questions	How is information technology used around us and how can we use it responsibly?	What makes a good photograph and how can we improve images?	How can we design and follow algorithms for a robot?	How do pictograms help us to collect and present data?	How can we create music digitally?	• How can we build and debug simple quizzes?
Year 2 Progression of Units	Computing Systems and Networks around us	Digital photography	Robot Algorithms	Pictograms	Programming Quizzes	Digital Literacy (Online Safety)
Year 2 Progression Statements: What Pupils will learn	• Identify examples of IT in the world and how people use them • Explain choices for using IT responsibly	• Compose and capture better photographs; make simple edits • Create simple digital music by selecting and arranging sounds	• Collect data and present it using tally charts and pictograms • Answer questions by comparing data categories	• Design and test algorithms for a robot to follow • Use logical reasoning to predict and debug behaviour	• Build a simple quiz using sequence and selection of blocks • Debug and improve the quiz based on testing	Explain how to keep information private and how to seek help • Recognise that content and communication online should be respectful
Lower Key Stage 2						
Year 3 Key Questions	How do computers connect and communicate in a network?	How can we tell a story with stop-frame animation?	How can we program sequences to create sounds and music?	How do branching databases help us sort and find information?	How do layout and design affect desktop publishing?	How can events trigger actions in programs?
Year 3 **Progression of Units**	Connecting Computers	Stop Frame Annimation Desktop publishing	Branching Databases	Sequencing Sounds	Events and Actions in Programs	Digital Literacy - Embedded across units

Year 3 Progression Statements: What Pupils will learn	• Identify inputs, processes and outputs of digital devices • Explain how computers are connected to make networks	• Capture and edit frames to create a short animation • Create documents by combining text and images with purpose	• Use yes/no questions to create and search a branching database	• Create sequences in a block-based language to make music • Design, test and refine simple programs	• Use a range of events to trigger actions • Predict and explain how code will execute	• Use technology respectfully; recognise what to do if something goes wrong online
Year 4 Key Questions	What is the internet and how can we evaluate online content?	How can we capture and edit audio effectively?	How can we use loops to draw shapes using code?	Why and how do we collect data over time with data loggers?	How can editing change the meaning of an image?	How can we use loops to build a game?
Year 4 **Progression of Units**	The internet	Audio Production: photo Editing	Data Logging	Repetition in shapes (Text Based)	Repetition in Games	Digital Literacy - Embedded across units
Year 4 Progression Statements: What Pupils will learn	Explain the internet as a network of networks and the role of the WWW • Evaluate online content for reliability and bias	Plan, record and edit audio to create a podcast • Manipulate images and reflect on the impact of changes	Collect data over time with data loggers and interpret results	Use count-controlled loops to draw shapes in a text-based language	Design games using loops (count-controlled and infinite)	Use search technologies effectively and cite sources where appropriate
Upper Key Stage 2						
Year 5 Key Questions	How do we evaluate the reliability of online information.	What are the ethical considerations of using images and videos?	What is a variable in programming?	How can we use variables to store information?	How can we collect and analyse data?	What tools can we use for data analysis?

Year 5 **Progression of Units**	Systems and Searching	Video Production: Vector Graphics	Flat-File Databases	Selection in Physical computing	Selection in Quizzes	Digital Literacy
Year 5 Progression Statements: What Pupils will learn	Recognise IT systems in the world and how they enable searching Explain how search engines index and rank results at a high level	Plan, capture and edit video for a purpose Create vector graphics using layers and grouped objects	Create and use databases to sort, filter and chart data to answer questions	Use conditions (IF/ELSE) with inputs/outputs on a microcontroller	Design and code an interactive quiz that uses selection and variables	Evaluate digital content; understand digital footprint and respectful behaviour
Year 6 Key Questions	How can we protect our digital footprint?	What is the importance of digital citizenship?	How do functions and procedures work in programming?	How can we debug complex programs?	What makes a website effective?	How do we create and organise content for a website?
Year 6 **Progression of Units**	Communication and Collaboration	Webpage Creation 3D Modelling	Introduction to spreadsheets	Variables in games	Sensing Movement	Digital Literacy - Embedded across units
Year 6 Progression Statements: What Pupils will learn	Explain how data is transferred across networks and collaborate safely online	Create web pages considering layout, navigation and copyright/attribution Plan, develop and evaluate 3D computer models of objects	Use spreadsheets to organise, calculate and present data to answer questions	Use variables to manage game state and refine designs through testing	Use sensors as inputs to trigger actions; design and evaluate a physical computing project	Recognise reliability, bias and ownership online; apply safe, responsible practice