Computing Progression of Skills				
Threshold Concept	**EYFS**	**Milestone 1 (Years 1 and 2)**	**Milestone 2 (Years 3 and 4)**	**Milestone 3 (Years 5 and 6)**
Online Safety	Use Common Sense Media to develop understanding of their online presence through the following strands: Media Balance & Well-being, Privacy and Security, Digital Footprint & Identity, Relationship & Communication, Cyberbullying, Digital Drama & Hate Speech, News & Media Literacy			
Computing Systems & Networks	• Recognise technology in school and at home. • Understand what we use technology for and how to use it safely	• Technology around us -Recognising technology in school and using it responsibly. • Information technology around us – Identifying IT and how its responsible use improves our world in school and beyond	• Connecting computers – identifying that digital devices have inputs, processes and outputs and how devices can be connected to make networks • The internet – recognising the internet as a network of networks including the WWW, and why we should evaluate online content	• Systems and searching – recognising IT systems in the world and how some can enable searching on the internet • Communication and collaboration – exploring how data is transferred by working collaboratively online
Creating Media	• Use apps to create simple representation of pictures, text and animation • Use digital technology to explore photography and sound recording.	• Digital painting – choosing appropriate tools in a program to create art and making comparisons with working non-digitally. • Digital writing – using a computer to create and format text, before comparing to writing non-digitally • Digital photography – capturing and changing digital photographs for different purposes • Digital music – using a computer as a tool to explore rhythms and melodies, before creating a musical composition	• Stop-frame animation – capturing and editing digital still images to produce a stop-frame animation that tells a story • Desktop publishing – creating documents by modifying text, images and page layouts for a specified purpose • Audio production – capturing and editing audio to produce a podcase, ensuring that copyright is considered • Photo editing – manipulating digital images and reflecting on the impact of changes and whether the required purpose is fulfilled	• Video production – planning, capturing and editing video to produce a short film • Introduction to vector graphics – creating images in a drawing program by using layers and groups of objects • Webpage creation – designing and creating webpages, considering copyright, aesthetics and navigation • 3D modelling – planning, developing and evaluating 3D computer models of physical objects
Data & Information	• Understand that objects can be grouped in different ways. Use talk to organise thinking.	• Grouping data – exploring object labels, then using them to sort and group objects by properties. • Pictograms – collecting data in tally charts and using attributes to organise and present data on a computer	• Branching databases – building and using branching databases to group objects using yes/no questions • Data logging – recognising how and why data is collected over time, before using data loggers to carry out an investigation	• Flat-file databases – using a database to order data and create charts to answer questions • Introduction to spreadsheets – answering questions by using spreadsheets to organise and calculate data

Programming	• Talk about and identify patterns. Extend and create patterns. Notice and correct errors in patterns. • Explore floor robots through play scenarios and begin to explore simple programming	• Moving a robot – writing short algorithms and programs for floor robots and predicting program outcomes • Programming animations – Designing and programming the movement of a character on screen to tell stories • Robot algorithms – creating and debugging programs and using logical reasoning to make predictions • Programming quizzes – designing algorithms and programs that use events to trigger sequences of code to make an interactive quiz	• Sequencing sounds – creating sequences in a block-based programming language to make music. • Events and actions in programs – writing algorithms and programs that use a range of events to trigger sequences of actions • Repetition in shapes – using a text-based language to explore count-controlled loops when drawing shapes • Repetition in games – using a block-based programming language to explore count-controlled and infinite loops when creating a game	• Selection in physical computing – exploring conditions and selection using a programmable microcontroller • Selection in quizzes – exploring selection in programming to design and code an interactive quiz • Variables in games – exploring variables when designing and coding a game • Sensing movement – designing and coding a project that captures inputs from a physical device.