7.1 Progression in EYFS

	Development Matters & ELG
Nursery	CL - Use a wider range of vocabulary PSED - Increasingly follow rules, understanding why they are important. PSED - Do not always need an adult to remind them of a rule. PD - Make healthy choices about activity UW - Explore how things work.
Reception	CL - Learn new vocabulary PSED - Explain the reasons for rules, know right from wrong and try to behave accordingly. PD – Know and talk about the different factors that support their overall health and wellbeing: sensible amounts of 'screen time' EAD - Explore, use and refine a variety of artistic effects to express their ideas and feelings. EAD - Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.

7.2 Progression in KS1 & KS2 - Computing systems and networks

Y1/2 Computing systems and networks – Technology around us	• identify technology • identify a computer and its main parts • use a mouse in different ways • use a keyboard to type on a computer • use the keyboard to edit text • create rules for using technology responsibly
Y1/2 Computing systems and networks – IT around us	• recognise the uses and features of information technology • identify the uses of information technology in the school • identify information technology beyond school • explain how information technology helps us • explain how to use information technology safely • recognise that choices are made when using information technology
Y3/4 Computing systems and networks – Connecting computers	• explain how digital devices function • identify input and output devices • recognise how digital devices can change the way we work • explain how a computer network can be used to share information • explore how digital devices can be connected • recognise the physical components of a network
Y3/4 Computing systems and networks – The Internet	• describe how networks physically connect to other networks • recognise how networked devices make up the internet • outline how websites can be shared via the World Wide Web (WWW) • describe how content can be added and accessed on the World Wide Web (WWW) • recognise how the content of the WWW is created by people • evaluate the consequences of unreliable content
Y5/6 Computing systems and networks - Systems and searching	• create questions with yes/no answers • identify the attributes needed to collect data about an object • create a branching database • explain why it is helpful for a database to be well structured • plan the structure of a branching database • independently create an identification tool
Y5/6Computing systems and networks - Communication and collaboration	• explain that data gathered over time can be used to answer questions • use a digital device to collect data automatically • explain that a data logger collects 'data points' from sensors over time • recognise how a computer can help us analyse data • identify the data needed to answer questions • use data from sensors to answer questions

7.3 Progression in KS1 & KS2 – Creating Media

Y1/2 Creating media – Digital painting	• describe what different freehand tools do • use the shape tool and the line tools • make careful choices when painting a digital picture • explain why I chose the tools I used • use a computer on my own to paint a picture • compare painting a picture on a computer and on paper
Y1/2 Creating media – Digital photography	• use a digital device to take a photograph • make choices when taking a photograph • describe what makes a good photograph • decide how photographs can be improved • use tools to change an image • recognise that photos can be changed
Y3/4 Creating media - Stop-frame animation	• explain that animation is a sequence of drawings or photographs • relate animated movement with a sequence of images • plan an animation • identify the need to work consistently and carefully • review and improve an animation • evaluate the impact of adding other media to an animation
Y3/4 Creating media - Audio production	• identify that sound can be recorded • explain that audio recordings can be edited • recognise the different parts of creating a podcast project • apply audio editing skills independently • combine audio to enhance my podcast project • evaluate the effective use of audio
Y5/6 Creating media - Video production	• explain what makes a video effective • identify digital devices that can record video • capture video using a range of techniques • create a storyboard • identify that video can be improved through reshooting and editing • consider the impact of the choices made when making and sharing a video
Y5/6 Creating media – Web page creation	• review an existing website and consider its structure • plan the features of a web page • consider the ownership and use of images (copyright) • recognise the need to preview pages • outline the need for a navigation path • recognise the implications of linking to content owned by other people

7.4 Progression in KS1 & KS2 – Programming A

Y1/2 Programming A – Moving a robot	• explain what a given command will do • act out a given word • combine forwards and backwards commands to make a sequence • combine four direction commands to make sequences • plan a simple program • find more than one solution to a problem
Y1/2 Programming A – Robot algorithms	• describe a series of instructions as a sequence • explain what happens when we change the order of instructions • use logical reasoning to predict the outcome of a program • explain that programming projects can have code and artwork • design an algorithm • create and debug a program that I have written
Y3/4 Programming A - Sequencing sounds	• explore a new programming environment • identify that commands have an outcome • explain that a program has a start • recognise that a sequence of commands can have an order • change the appearance of my project • create a project from a task description
Y3/4 Programming A – Repetition in shapes	• identify that accuracy in programming is important • create a program in a text-based language • explain what 'repeat' means • modify a count-controlled loop to produce a given outcome • decompose a task into small steps • create a program that uses count-controlled loops to produce a given outcome
Y5/6 Programming A – Selection in physical computing	• control a simple circuit connected to a computer • write a program that includes count-controlled loops • explain that a loop can stop when a condition is met • explain that a loop can be used to repeatedly check whether a condition has been met • design a physical project that includes selection • create a program that controls a physical computing project
Y5/6 Programming A – Variables in games	• define a 'variable' as something that is changeable • explain why a variable is used in a program • choose how to improve a game by using variables • design a project that builds on a given example • use my design to create a project • evaluate my project

7.5 Progression in KS1 & KS2 – Data Information

Y1/2 Data and information – Grouping data	• label objects • identify that objects can be counted • describe objects in different ways • count objects with the same properties • compare groups of objects • answer questions about groups of objects
Y1/2 Data and information – Pictograms	• recognise that we can count and compare objects using tally charts • recognise that objects can be represented as pictures • create a pictogram • select objects by attribute and make comparisons • recognise that people can be described by attributes • explain that we can present information on a computer
Y3/4 Data and information – Branching databases	• create questions with yes/no answers • identify the attributes needed to collect data about an object • create a branching database • explain why it is helpful for a database to be well structured • plan the structure of a branching database • independently create an identification tool
Y3/4 Data and information – Data logging	• explain that data gathered over time can be used to answer questions • use a digital device to collect data automatically • explain that a data logger collects 'data points' from sensors over time • recognise how a computer can help us analyse data • identify the data needed to answer questions • use data from sensors to answer questions
Y5/6 Data and information – Flat-file databases	• use a form to record information • compare paper and computer-based databases • outline how you can answer questions by grouping and then sorting data • explain that tools can be used to select specific data • explain that computer programs can be used to compare data visually • use a real-world database to answer questions
Y5/6 Data and information – Spreadsheets	• create a data set in a spreadsheet • build a data set in a spreadsheet • explain that formulas can be used to produce calculated data • apply formulas to data • create a spreadsheet to plan an event • choose suitable ways to present data

7.6 Progression in KS1 & KS2 – Creating Media

Y1/2 Creating media – Digital writing	• use a computer to write • add and remove text on a computer • identify that the look of text can be changed on a computer • make careful choices when changing text • explain why I used the tools that I chose • compare typing on a computer to writing on paper
Y1/2 Creating media - Digital music	• say how music can make us feel • identify that there are patterns in music • experiment with sound using a computer • use a computer to create a musical pattern • create music for a purpose • review and refine our computer work
Y3/4 Creating media – Desktop publishing	• recognise how text and images convey information • recognise that text and layout can be edited • choose appropriate page settings • add content to a desktop publishing publication • consider how different layouts can suit different purposes • consider the benefits of desktop publishing
Y3/4 Creating media – Photo editing	• explain that the composition of digital images can be changed • explain that colours can be changed in digital images • explain how cloning can be used in photo editing • explain that images can be combined • combine images for a purpose • evaluate how changes can improve an image
Y5/6 Creating media – Introduction to vector graphics	• identify that drawing tools can be used to produce different outcomes • create a vector drawing by combining shapes • use tools to achieve a desired effect • recognise that vector drawings consist of layers • group objects to make them easier to work with • apply what I have learned about vector drawings
Y5/6 Creating media – 3D Modelling	• recognise that you can work in three dimensions on a computer • identify that digital 3D objects can be modified • recognise that objects can be combined in a 3D model • create a 3D model for a given purpose • plan my own 3D model • create my own digital 3D model

7.7 Progression in KS1 & KS2 – Programming B

Y1/2 Programming B - Programming animations	• choose a command for a given purpose • show that a series of commands can be joined together • identify the effect of changing a value • explain that each sprite has its own instructions • design the parts of a project • use my algorithm to create a program
Y1/2 Programming B - Programming quizzes	• explain that a sequence of commands has a start • explain that a sequence of commands has an outcome • create a program using a given design • change a given design • create a program using my own design • decide how my project can be improved
Y3/4 Programming B - Events and actions in programs	• explain how a sprite moves in an existing project • create a program to move a sprite in four directions • adapt a program to a new context • develop my program by adding features • identify and fix bugs in a program • design and create a maze-based challenge
Y3/4 Programming B – Repetition in games	• develop the use of count-controlled loops in a different programming environment • explain that in programming there are infinite loops and count controlled loops • develop a design that includes two or more loops which run at the same time • modify an infinite loop in a given program • design a project that includes repetition • create a project that includes repetition
Y5/6 Programming B – Selection in quizzes	• explain how selection is used in computer programs • relate that a conditional statement connects a condition to an outcome • explain how selection directs the flow of a program • design a program which uses selection • create a program which uses selection • evaluate my program
Y5/6 Programming B - Sensing movement	• create a program to run on a controllable device • explain that selection can control the flow of a program • update a variable with a user input • use a conditional statement to compare a variable to a value • design a project that uses inputs and outputs on a controllable device • develop a program to use inputs and outputs on a controllable device