				Eastcote Primary Academy - Computing Progression Map				
	Nursery	**Reception**	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**
computing systems and networks	**Nursery and Reception** Please note: Early Years use the EYFS Framework and do not engage in subject specific study. They are building pre-requisite foundational skills that will allow them to access the computing curriculum in the future. Please see EYFS Curriculum Overview for Reception and Nursery for further information	**Nursery and Reception** Please note: Early Years use the EYFS Framework and do not engage in subject specific study. They are building pre-requisite foundational skills that will allow them to access the computing curriculum in the future. Please see EYFS Curriculum Overview for Reception and Nursery for further information	-To identify technology -To identify a computer and its main parts To use a mouse in different ways -To use a keyboard to type on a computer -To use the keyboard to edit text -To create rules for using technology responsibly	-To recognise the uses and features of information technology -To identify the uses of information technology in the school -To identify information technology beyond school -To explain how information technology helps us -To explain how to use information technology safely -To recognise that choices are made when using information technology	-To explain how digital devices function -To identify input and output devices -To recognise how digital devices can change the way we work -To explain how a computer network can be used to share information -To explore how digital devices can be connected -To recognise the physical components of a network	-To describe how networks physically connect to other networks -To recognise how networked devices make up the internet -To outline how websites can be shared via the World Wide Web (WWW) -To describe how content can be added and accessed on the World Wide Web (WWW) -To recognise how the content of the WWW is created by people -To evaluate the consequences of unreliable content	-To explain that computers can be connected together to form systems -To recognise the role of computer systems in our lives -To experiment with search engines -To describe how search engines select results -To explain how search results are ranked -To recognise why the order of results is important, and to whom	-To explain the importance of internet addresses -To recognise how data is transferred across the internet -To explain how sharing information online can help people to work together -To evaluate different ways of working together online -To recognise how we communicate using technology -To evaluate different methods of online communication

programming				A	A	A	A	A	A-

programming

Column 1 (A/B):

A
- To explain what a given command will do
- To act out a given word
- To combine forwards and backwards commands to make a sequence
- To combine four direction commands to make sequences
- To plan a simple program
- To find more than one solution to a problem

B
- To choose a command for a given purpose
- To show that a series of commands can be joined together
- To identify the effect of changing a value
- To explain that each sprite has its own instructions
- To design the parts of a project
- To use my algorithm to create a program

Column 2 (A/B):

A
- To describe a series of instructions as a sequence
- To explain what happens when we change the order of instructions
- To use logical reasoning to predict the outcome of a program
- To explain that programming projects can have code and artwork
- To design an algorithm
- To create and debug a program that I have written

B
- To explain that a sequence of commands has a start
- To explain that a sequence of commands has an outcome
- To create a program using a given design
- To change a given design
- To create a program using my own design
- To decide how my project can be improved

Column 3 (A/B):

A
- To explore a new programming environment
- To identify that commands have an outcome
- To explain that a program has a start
- To recognise that a sequence of commands can have an order
- To change the appearance of my project
- To create a project from a task description

B
- To explain how a sprite moves in an existing project
- To create a program to move a sprite in four directions
- To adapt a program to a new context
- To develop my program by adding features
- To identify and fix bugs in a program
- To design and create a maze-based challenge

Column 4 (A/B):

A
- To identify that accuracy in programming is important
- To create a program in a text-based language
- To explain what 'repeat' means
- To modify a count-controlled loop to produce a given outcome
- To decompose a task into small steps
- To create a program that uses count-controlled loops

B
- To develop the use of count-controlled loops in a different programming environment
- To explain that in programming there are infinite loops and count controlled loops
- To develop a design that includes two or more loops which run at the same time
- To modify an infinite loop in a given program
- To design a project that includes repetition
- To create a project that includes repetition

Column 5 (A/B):

A
- To control a simple circuit connected to a computer
- To write a program that includes count-controlled loops
- To explain that a loop can stop when a condition is met
- To explain that a loop can be used to repeatedly check whether a condition has been met
- To design a physical project that includes selection
- To create a program that controls a physical computing project

B
- To explain how selection is used in computer programs
- To relate that a conditional statement connects a condition to an outcome
- To explain how selection directs the flow of a program
- To design a program which uses selection
- To create a program which uses selection
- To evaluate my program

Column 6 (A-/B):

A-
To define a 'variable' as something that is changeable -To explain why a variable is used in a program - To choose how to improve a game by using variables -To design a project that builds on a given example -To use my design to create a project -To evaluate my project

B
- To create a program to run on a controllable device
- To explain that selection can control the flow of a program
- To update a variable with a user input
- To use a conditional statement to compare a variable to a value
- To design a project that uses inputs and outputs on a controllable device
- To develop a program to use inputs and outputs on a controllable device

creating media				To describe what different freehand tools do -To use the shape tool and the line tools -To make careful choices when painting a digital picture -To explain why I chose the tools I used -To use a computer on my own to paint a picture -To compare painting a picture on a computer and on paper	-To use a digital device to take a photograph -To make choices when taking a photograph -To describe what makes a good photograph -To decide how photographs can be improved -To use tools to change an image -To recognise that photos can be changed	A -To explain that animation is a sequence of drawings or photographs -To relate animated movement with a sequence of images -To plan an animation -To identify the need to work consistently and carefully -To review and improve an animation -To evaluate the impact of adding other media to an animation B -To recognise how text and images convey information -To recognise that text and layout can be edited -To choose appropriate page settings -To add content to a desktop publishing publication -To consider how different layouts can suit different purposes -To consider the benefits of desktop publishing	A -To identify that sound can be recorded -To explain that audio recordings can be edited -To recognise the different parts of creating a podcast project -To apply audio editing skills independently -To combine audio to enhance my podcast project -To evaluate the effective use of audio B To explain that the composition of digital images can be changed -To explain that colours can be changed in digital images -To explain how cloning can be used in photo editing -To explain that images can be combined -To combine images for a purpose -To evaluate how changes can improve an image	A -To explain what makes a video effective -To identify digital devices that can record video -To capture video using a range of techniques -To create a storyboard -To identify that video can be improved through reshooting and editing -To consider the impact of the choices made when making and sharing a video B -To identify that drawing tools can be used to produce different outcomes -To create a vector drawing by combining shapes -To use tools to achieve a desired effect -To recognise that vector drawings consist of layers -To group objects to make them easier to work with -To apply what I have learned about vector drawings	-To recognise that you can work in three dimensions on a computer -To identify that digital 3D objects can be modified -To recognise that objects can be combined in a 3D model -To create a 3D model for a given purpose -To plan my own 3D model -To create my own digital 3D model

| data and information | | | A
-To label objects
-To identify that objects can be counted
-To describe objects in different ways
-To count objects with the same properties
-To compare groups of objects
-To answer questions about groups of object
B
-To use a computer to write
-To add and remove text on a computer
-To identify that the look of text can be changed on a computer
-To make careful choices when changing text
-To explain why I used the tools that I chose
-To compare typing on a computer to writing on paper | A
-To recognise that we can count and compare objects using tally charts
-To recognise that objects can be represented as pictures
-To create a pictogram
-To select objects by attribute and make comparisons
-To recognise that people can be described by attributes
-To explain that we can present information using a computer
B
-To say how music can make us feel
-To identify that there are patterns in music
-To experiment with sound using a device
-To use a device to create a musical pattern
-To create music for a purpose
-To review and refine our computer work | -To create questions with yes/no answers
-To identify the attributes needed to collect data about an object
-To create a branching database
-To explain why it is helpful for a database to be well structured
-To plan the structure of a branching database
-To independently create an identification tool | -To explain how digital devices function
-To identify input and output devices
-To recognise how digital devices can change the way we work
-To explain how a computer network can be used to share information
-To explore how digital devices can be connected
-To recognise the physical components of a network | -To use a form to record information
-To compare paper and computer-based databases
-To outline how you can answer questions by grouping and then sorting data
-To explain that tools can be used to select specific data
-To explain that computer programs can be used to compare data visually
-To use a real-world database to answer questions | -To create a data set in a spreadsheet -To build a data set in a spreadsheet -To explain that formulas can be used to produce calculated data -To apply formulas to data -To create a spreadsheet to plan an event -To choose suitable ways to present data |