	Year 3	Year 4	Year 5	Year 6
Computing systems and networks	**Connecting Computers (3.1)**	**The internet (4.1)**	**Systems and searching (5.1)**	**Communication and Collaboration (6.1)**
	To explain how digital devices function	To describe how networks physically connect to other networks	explain that computers can be connected together to form systems	explain the importance of internet addresses
	To identify input and output devices	-To recognise how networked devices make up the internet	recognise the role of computer systems in our lives	recognise how data is transferred across the internet
	-To recognise how digital devices can change the way we work	-To outline how websites can be shared via the World Wide Web (WWW)	identify how to use a search engine	explain how sharing information online can help people to work together
	-To explain how a computer network can be used to share information	-To describe how content can be added and accessed on the World Wide Web (WWW)	describe how search engines select results	evaluate different ways of working together online
	-To explore how digital devices can be connected	-To recognise how the content of the WWW is created by people	explain how search results are ranked	recognise how we communicate using technology
	-To recognise the physical components of a network	-To evaluate the consequences of unreliable content	recognise why the order of results is important, and to whom	evaluate different methods of online communication
Creating Media A	**Stop-frame animation (3.2)**	**Photo editing (4.2)**	**Video production (5.2)**	**Webpage Creation (6.2)**
	To explain that animation is a sequence of drawings or photographs	To identify that sound can be recorded	explain what makes a video effective	review an existing website and consider its structure
	-To relate animated movement with a sequence of images	-To explain that audio recordings can be edited	use a digital device to record video	plan the features of a web page
	-To plan an animation	-To recognise the different parts of creating a podcast project	capture video using a range of techniques	consider the ownership and use of images (copyright)
	-To identify the need to work consistently and carefully	-To apply audio editing skills independently	create a storyboard	recognise the need to preview pages
	-To review and improve an animation	-To combine audio to enhance my podcast project	identify that video can be improved through reshooting and editing	outline the need for a navigation path
	-To evaluate the impact of adding other media to an animation	-To evaluate the effective use of audio	consider the impact of the choices made when making and sharing a video	recognise the implications of linking to content owned by other people
Programming A	**Sequencing Sounds (3.3)**	**Repetition in shapes (4.3)**	**Selection in Physical Computing (5.3)**	**Variables in games (6.3)**
	To explore a new programming environment	To identify that accuracy in programming is important	control a simple circuit connected to a computer	define a 'variable' as something that is changeable
	-To identify that commands have an outcome	-To create a program in a text-based language	write a program that includes count-controlled loops	explain why a variable is used in a program
	-To explain that a program has a start	-To explain what 'repeat' means	explain that a loop can stop when a condition is met	choose how to improve a game by using variables
	-To recognise that a sequence of commands can have an order	-To modify a count-controlled loop to produce a given outcome	explain that a loop can be used to repeatedly check whether a condition has been met	design a project that builds on a given example
	-To change the appearance of my project	-To decompose a task into small steps	design a physical project that includes selection	use my design to create a project
	-To create a project from a task description	-To create a program that uses count-controlled loops to produce a given outcome	create a program that controls a physical computing project	evaluate my project

Data and information	**Branching Databases (3.4)**	**Data logging (4.4)**	**Flat File Databases (5.4)**	**Introduction to spreadsheets (6.4)**
	To create questions with yes/no answers	To explain that data gathered over time can be used to answer questions	use a form to record information	create a data set in a spreadsheet
	-To identify the attributes needed to collect data about an object	-To use a digital device to collect data automatically	compare paper and computer-based databases	build a data set in a spreadsheet
	-To create a branching database	-To explain that a data logger collects 'data points' from sensors over time	outline how you can answer questions by grouping and then sorting data	explain that formulas can be used to produce calculated data
	-To explain why it is helpful for a database to be well structured	-To recognise how a computer can help us analyse data	explain that tools can be used to select specific data	apply formulas to data
	-To plan the structure of a branching database	-To identify the data needed to answer questions	explain that computer programs can be used to compare data visually	create a spreadsheet to plan an event
	-To independently create an identification tool	-To use data from sensors to answer questions	use a real-world database to answer questions	choose suitable ways to present data
Creating media B	**Desktop Publishing (3.5)**	**Photo editing (4.5)**	**Introduction to Vector graphics (5.5)**	**3D modelling (6.5)**
	To recognise how text and images convey information	To explain that the composition of digital images can be changed	identify that drawing tools can be used to produce different outcomes	recognise that you can work in three dimensions on a computer
	-To recognise that text and layout can be edited	-To explain that colours can be changed in digital images	create a vector drawing by combining shapes	identify that digital 3D objects can be modified
	-To choose appropriate page settings	-To explain how cloning can be used in photo editing	use tools to achieve a desired effect	recognise that objects can be combined in a 3D model
	-To add content to a desktop publishing publication	-To explain that images can be combined	recognise that vector drawings consist of layers	create a 3D model for a given purpose
	-To consider how different layouts can suit different purposes	-To combine images for a purpose	group objects to make them easier to work with	plan my own 3D model
	-To consider the benefits of desktop publishing	-To evaluate how changes can improve an image	apply what I have learned about vector drawings	create my own digital 3D model
Programming B	**Events and actions in Programs (3.6)**	**Repetition in games (4.6)**	**Selection in Quizzes (5.6)**	**Sensing movement (6.6)**
	To explain how a sprite moves in an existing project	To develop the use of count-controlled loops in a different programming environment	explain how selection is used in computer programs	create a program to run on a controllable device
	-To create a program to move a sprite in four directions	-To explain that in programming there are infinite loops and count controlled loops	relate that a conditional statement connects a condition to an outcome	explain that selection can control the flow of a program
	-To adapt a program to a new context	-To develop a design that includes two or more loops which run at the same time	explain how selection directs the flow of a program	update a variable with a user input
	-To develop my program by adding features	-To modify an infinite loop in a given program	design a program that uses selection	use an conditional statement to compare a variable to a value
	-To identify and fix bugs in a program	-To design a project that includes repetition	create a program that uses selection	design a project that uses inputs and outputs on a controllable device
	-To design and create a maze-based challenge	-To create a project that includes repetition	evaluate my program	develop a program to use inputs and outputs on a controllable device