Year	Unit Name	Lesson	Learning Objectives	Success Criteria	National Curriculum Links						Notes for techers
					1.1	1.2	1.3	1.4	1.5	1.6	
A	Computing systems and networks - Systems and searching	1	-To explain that computers can be connected together to form systems	-I can describe that a computer system features inputs, processes, and outputs - I can explain that computer systems communicate with other devices - I can explain that systems are built using a number of parts	■	■		■	■	■	
A	Computing systems and networks - Systems and searching	1	-To recognise the role of computer systems in our lives	-I can explain the benefits of a given computer system - I can identify tasks that are managed by computer systems - I can identify the human elements of a computer system	■	■			■	■	
A	Computing systems and networks - Systems and searching	2	-To experiment with search engines	-I can compare results from different search engines - I can make use of a web search to find specific information - I can refine my web search	■	■			■	■	
A	Computing systems and networks - Systems and searching	2	-To describe how search engines select results	-I can explain why we need tools to find things online - I can recognise the role of web crawlers in creating an index - I can relate a search term to the search engine's index	■	■			■	■	Short unit to be covered in three sessions
A	Computing systems and networks - Systems and searching	3	-To explain how search results are ranked	-I can explain that a search engine follows rules to rank results - I can give examples of criteria used by search engines to rank results - I can order a list by rank	■	■			■	■	
A	Computing systems and networks - Systems and searching	3	-To recognise why the order of results is important, and to whom	-I can describe some of the ways that search results can be influenced - I can explain how search engines make money - I can recognise some of the limitations of search engines	■	■			■	■	
A	Creating media - Video production	1	-To explain what makes a video effective	-I can compare features in different videos - I can explain that video is a visual media format - I can identify features of videos					■	■	
A	Creating media - Video production	2	-To identify digital devices that can record video	-I can experiment with different camera angles - I can identify and find features on a digital video recording device - I can make use of a microphone					■	■	
A	Creating media - Video production	3	-To capture video using a range of techniques	-I can capture video using a range of filming techniques - I can review how effective my video is - I can suggest filming techniques for a given purpose					■	■	
A	Creating media - Video production	4	-To create a storyboard	-I can create and save video content - I can decide which filming techniques I will use - I can outline the scenes of my video					■	■	
A	Creating media - Video production	5	-To identify that video can be improved through reshooting and editing	-I can explain how to improve a video by reshooting and editing - I can select the correct tools to make edits to my video - I can store, retrieve, and export my recording to a computer					■	■	
A	Creating media - Video production	6	-To consider the impact of the choices made when making and sharing a video	-I can evaluate my video and share my opinions - I can make edits to my video and improve the final outcome - I can recognise that my choices when making a video will impact on the quality of the final outcome					■	■	
A	Creating media – Introduction to vector graphics	1	-To identify that drawing tools can be used to produce different outcomes	-I can discuss how vector drawings are different from paper-based drawings - I can experiment with the shape and line tools - I can recognise that vector drawings are made using shapes						■	
A	Creating media – Introduction to vector graphics	2	-To create a vector drawing by combining shapes	-I can explain that each element added to a vector drawing is an object - I can identify the shapes used to make a vector drawing - I can move, resize, and rotate objects I have duplicated						■	
A	Creating media – Introduction to vector graphics	3	-To use tools to achieve a desired effect	-I can explain how alignment grids and resize handles can be used to improve consistency - I can modify objects to create a new image - I can use the zoom tool to help me add detail to my drawings						■	
A	Creating media – Introduction to vector graphics	4	-To recognise that vector drawings consist of layers	-I can change the order of layers in a vector drawing - I can identify that each added object creates a new layer in the drawing - I can use layering to create an image						■	

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A	Creating media – Introduction to vector graphics	5	-To group objects to make them easier to work with	- I can copy part of a drawing by duplicating several objects - I can recognise when I need to group and ungroup objects - I can reuse a group of objects to further develop my vector drawing						X	
A	Creating media – Introduction to vector graphics	6	-To apply what I have learned about vector drawings	- I can compare vector drawings to freehand paint drawings - I can create a vector drawing for a specific purpose - I can reflect on the skills I have used and why I have used them						X	
A & B	Programming A – Selection in physical computing	1	-To control a simple circuit connected to a computer	- I can create a simple circuit and connect it to a microcontroller - I can explain what an infinite loop does - I can program a microcontroller to make an LED switch on	X	X	X			X	
A & B	Programming A – Selection in physical computing	1	-To write a program that includes count-controlled loops	- I can connect more than one output component to a microcontroller - I can design sequences that use count-controlled loops - I can use a count-controlled loop to control outputs	X	X	X			X	
A & B	Programming A – Selection in physical computing	2	-To explain that a loop can stop when a condition is met	- I can design a conditional loop - I can explain that a condition is either true or false - I can program a microcontroller to respond to an input	X	X				X	
A & B	Programming A – Selection in physical computing	2	-To explain that a loop can be used to repeatedly check whether a condition has been met	- I can explain that a condition being met can start an action - I can identify a condition and an action in my project - I can use selection (an 'if...then...' statement) to direct the flow of a program	X	X				X	This is an extended project linked to D&T and uses Micro:Bits to create a game or model. Best undertaken in the Summer term of Year A & Year B. Alternate context each year.
A & B	Programming A – Selection in physical computing	3	-To design a physical project that includes selection	- I can create a detailed drawing of my project - I can describe what my project will do - I can identify a real-world example of a condition starting an action	X					X	
A & B	Programming A – Selection in physical computing	3	-To create a program that controls a physical computing project	- I can test and debug my project - I can use selection to produce an intended outcome - I can write an algorithm that describes what my model will do	X					X	
A & B	Programming B - Sensing movement	4	-To create a program to run on a controllable device	- I can apply my knowledge of programming to a new environment - I can test my program on an emulator - I can transfer my program to a controllable device	X					X	
A & B	Programming B - Sensing movement	4	-To explain that selection can control the flow of a program	- I can determine the flow of a program using selection - I can identify examples of conditions in the real world - I can use a variable in an if, then, else statement to select the flow of a program	X					X	
A & B	Programming B - Sensing movement	5	-To update a variable with a user input	- I can experiment with different physical inputs - I can explain that checking a variable doesn't change its value - I can use a condition to change a variable	X					X	
A & B	Programming B - Sensing movement	5	-To use a conditional statement to compare a variable to a value	- I can explain the importance of the order of conditions in else, if statements - I can modify a program to achieve a different outcome - I can use an operand (e.g. <>=) in an if, then statement	X					X	
A & B	Programming B - Sensing movement	6	-To design a project that uses inputs and outputs on a controllable device	- I can decide what variables to include in a project - I can design the algorithm for my project - I can design the program flow for my project	X					X	
A & B	Programming B - Sensing movement	6	-To develop a program to use inputs and outputs on a controllable device	- I can create a program based on my design - I can test my program against my design - I can use a range of approaches to find and fix bugs	X					X	
B	Computing systems and networks - Communication and collaboration	1	-To explain the importance of internet addresses	- I can describe how computers use addresses to access websites - I can explain that internet devices have addresses - I can recognise that data is transferred using agreed methods				X		X	
B	Computing systems and networks - Communication and collaboration	1	-To recognise how data is transferred across the internet	- I can explain that all data transferred over the internet is in packets - I can explain that data is transferred over networks in packets - I can identify and explain the main parts of a data packet				X		X	

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B	Computing systems and networks - Communication and collaboration	2	-To explain how sharing information online can help people to work together	-I can explain that the internet allows different media to be shared - I can recognise how to access shared files stored online - I can send information over the internet in different ways				■		■	**Short unit to be covered in three sessions**
B	Computing systems and networks - Communication and collaboration	2	-To evaluate different ways of working together online	-I can explain how the internet enables effective collaboration - I can identify different ways of working together online - I can recognise that working together on the internet can be public or private				■		■	
B	Computing systems and networks - Communication and collaboration	3	-To recognise how we communicate using technology	-I can choose methods of communication to suit particular purposes - I can explain the different ways in which people communicate - I can identify that there are a variety of ways to communicate over the internet				■		■	
B	Computing systems and networks - Communication and collaboration	3	-To evaluate different methods of online communication	-I can compare different methods of communicating on the internet - I can decide when I should and should not share information online - I can explain that communication on the internet may not be private				■		■	
B	Creating media – Web page creation	1	-To review an existing website and consider its structure	-I can discuss the different types of media used on websites - I can explore a website - I know that websites are written in HTML						■	
B	Creating media – Web page creation	2	-To plan the features of a web page	-I can draw a web page layout that suits my purpose - I can recognise the common features of a web page - I can suggest media to include on my page						■	
B	Creating media – Web page creation	3	-To consider the ownership and use of images (copyright)	-I can describe what is meant by the term 'fair use' - I can find copyright-free images - I can say why I should use copyright-free images						■	
B	Creating media – Web page creation	4	-To recognise the need to preview pages	-I can add content to my own web page - I can evaluate what my web page looks like on different devices and suggest/make edits - I can preview what my web page looks like						■	
B	Creating media – Web page creation	5	-To outline the need for a navigation path	-I can describe why navigation paths are useful - I can explain what a navigation path is - I can make multiple web pages and link them using hyperlinks						■	
B	Creating media – Web page creation	6	-To recognise the implications of linking to content owned by other people	-I can create hyperlinks to link to other people's work - I can evaluate the user experience of a website - I can explain the implication of linking to content owned by others						■	
B	Data and information – Spreadsheets	1	-To create a data set in a spreadsheet	-I can collect data - I can enter data into a spreadsheet - I can suggest how to structure my data						■	
B	Data and information – Spreadsheets	2	-To build a data set in a spreadsheet	-I can apply an appropriate format to a cell - I can choose an appropriate format for a cell - I can explain what an item of data is						■	
B	Data and information – Spreadsheets	3	-To explain that formulas can be used to produce calculated data	-I can construct a formula in a spreadsheet - I can explain which data types can be used in calculations - I can identify that changing inputs changes outputs						■	Strong links with maths - could be covered in the Autumn term within a maths topic.
B	Data and information – Spreadsheets	4	-To apply formulas to data	-I can apply a formula to multiple cells by duplicating it - I can calculate data using different operations - I can create a formula which includes a range of cells						■	
B	Data and information – Spreadsheets	5	-To create a spreadsheet to plan an event	-I can apply a formula to calculate the data I need to answer questions - I can explain why data should be organised - I can use a spreadsheet to answer questions						■	
B	Data and information – Spreadsheets	6	-To choose suitable ways to present data	-I can produce a chart - I can suggest when to use a table or chart - I can use a chart to show the answer to questions						■	
B	Creating media – 3D Modelling	1	-To recognise that you can work in three dimensions on a computer	-I can add 3D shapes to a project - I can move 3D shapes relative to one another - I can view 3D shapes from different perspectives						■	

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B	Creating media – 3D Modelling	2	-To identify that digital 3D objects can be modified	-I can lift/lower 3D objects - I can recolour a 3D object - I can resize an object in three dimensions							
B	Creating media – 3D Modelling	3	-To recognise that objects can be combined in a 3D model	-I can duplicate 3D objects - I can group 3D objects - I can rotate objects in three dimensions							
B	Creating media – 3D Modelling	4	-To create a 3D model for a given purpose	-I can accurately size 3D objects - I can combine a number of 3D objects - I can show that placeholders can create holes in 3D objects							
B	Creating media – 3D Modelling	5	-To plan my own 3D model	-I can analyse a 3D model - I can choose objects to use in a 3D model - I can combine objects in a design							
B	Creating media – 3D Modelling	6	-To create my own digital 3D model	-I can construct a 3D model based on a design - I can explain how my 3D model could be improved - I can modify my 3D model to improve it							