Computing Progression Ks 2

Year Group	Suggested Order	Unit Name	Lesson	Learning Objectives	Success Criteria	National Curriculum Links							Teach Computing Taxonomy										Education for a Connected World
						2.1	2.2	2.3	2.4	2.5	2.6	2.7	AL	CM	CS	DD	DI	ET	IT	NW	PG	SS	
3	1	Connecting Computers	1	To explain how digital devices function	- I can explain that digital devices accept inputs - I can explain that digital devices produce outputs - I can follow a process		■		■		■				■								
3	1	Connecting Computers	2	To identify input and output devices	- I can classify input and output devices - I can design a digital device - I can model a simple process		■		■		■				■								
3	1	Connecting Computers	3	To recognise how digital devices can change the way we work	- I can explain how I use digital devices for different activities - I can recognise similarities between using digital devices and non-digital tools - I can suggest differences between using digital devices and non-digital tools		■		■		■				■				■				
3	1	Connecting Computers	4	To explain how a computer network can be used to share information	- I can discuss why we need a network switch - I can explain how messages are passed through multiple connections - I can recognise different connections		■		■		■				■					■			
3	1	Connecting Computers	5	To explore how digital devices can be connected	- I can demonstrate how information can be passed between devices - I can explain the role of a switch, server, and wireless access point in a network - I can recognise that a computer network is made up of a number of devices		■		■		■				■					■			
3	1	Connecting Computers	6	To recognise the physical components of a network	- I can identify how devices in a network are connected with one another - I can identify networked devices around me - I can identify the benefits of computer networks		■		■		■				■					■			
3	2	Stop-frame Animation	1	To explain that animation is a sequence of drawings or photographs	- I can create an effective flip book-style animation - I can draw a sequence of pictures - I can explain how an animation/flip book works						■			■				■					- Copyright and ownership - Managing online information
3	2	Stop-frame Animation	2	To relate animated movement with a sequence of images	- I can create an effective stop frame animation - I can explain why little changes are needed for each frame - I can predict what an animation will look like						■			■				■					- Copyright and ownership - Managing online information
3	2	Stop-frame Animation	3	To plan an animation	- I can break down a story into settings, characters and events - I can create a storyboard - I can describe an animation that is achievable on screen						■			■		■							- Copyright and ownership - Managing online information
3	2	Stop-frame Animation	4	To identify the need to work consistently and carefully	- I can evaluate the quality of my animation - I can review a sequence of frames to check my work - I can use onion skinning to help me make small changes between frames						■			■		■		■					- Copyright and ownership - Managing online information
3	2	Stop-frame Animation	5	To review and improve an animation	- I can evaluate another learner's animation - I can explain ways to make my animation better - I can improve my animation based on feedback						■			■		■		■					- Copyright and ownership - Managing online information
3	2	Stop-frame Animation	6	To evaluate the impact of adding other media to an animation	- I can add other media to my animation - I can evaluate my final film - I can explain why I added other media to my animation						■			■		■		■					- Copyright and ownership - Managing online information
3	3	Sequence in music	1	To explore a new programming environment	- I can explain that objects in Scratch have attributes (linked to) - I can identify the objects in a Scratch project (sprites, backdrops) - I can recognise that commands in Scratch are represented as blocks	■	■	■			■							■			■		
3	3	Sequence in music	2	I can identify that each sprite is controlled by the commands I choose	- I can choose a word which describes an on-screen action for my design - I can create a program following a design - I can identify that each sprite is controlled by the commands I choose	■	■	■			■										■		
3	3	Sequence in music	3	To explain that a program has a start	- I can create a sequence of connected commands - I can explain that the objects in my project will respond exactly to the code - I can start a program in different ways	■	■	■			■										■		
3	3	Sequence in music	4	To recognise that a sequence of commands can have an order	- I can combine sound commands - I can explain what a sequence is - I can order notes into a sequence	■	■	■			■										■		
3	3	Sequence in music	5	To change the appearance of my project	- I can build a sequence of commands - I can decide the actions for each sprite in a program - I can make design choices for my artwork	■	■	■			■					■					■		
3	3	Sequence in music	6	To create a project from a task description	- I can identify and name the objects I will need for a project - I can implement my algorithm as code - I can relate a task description to a design	■	■	■			■		■	■		■					■		
3	4	Branching databases	1	To create questions with yes/no answers	- I can create two groups of objects separated by one attribute - I can investigate questions with yes/no answers - I can make up a yes/no question about a collection of objects						■						■						
3	4	Branching databases	2	To identify the object attributes needed to collect relevant data	- I can arrange objects into a tree structure - I can create a group of objects within an existing group - I can select an attribute to separate objects						■						■						
3	4	Branching databases	3	To create a branching database	- I can group objects using my own yes/no questions - I can prove my branching database works - I can select objects to arrange in a branching database						■						■	■					
3	4	Branching databases	4	To identify objects using a branching database	- I can create questions and apply them to a tree structure - I can select a theme and choose a variety of objects - I can use my branching database to answer questions						■						■	■					

3	4	Branching databases	5	To explain why it is helpful for a database to be well structured	- I can compare two branching database structures - I can create yes/no questions using given attributes - I can explain that questions need to be ordered carefully to split objects into similarly sized groups																		
3	4	Branching databases	6	To compare the information shown in a pictogram with a branching database	- I can compare two ways of presenting information - I can explain what a branching database tells me - I can explain what a pictogram tells me																		
3	5	Desktop publishing	1	To recognise how text and images convey information	- I can explain the difference between text and images - I can identify the advantages and disadvantages of using text and images - I can recognise that text and images can communicate messages clearly																		- Copyright and ownership - Managing online information
3	5	Desktop publishing	2	To recognise that text and layout can be edited	- I can change font style, size, and colours for a given purpose - I can edit text - I can explain that text can be changed to communicate more clearly																		- Copyright and ownership - Managing online information
3	5	Desktop publishing	3	To choose appropriate page settings	- I can create a template for a particular purpose - I can define the term 'page orientation' - I can recognise placeholders and say why they are important																		- Copyright and ownership - Managing online information
3	5	Desktop publishing	4	To add content to a desktop publishing publication	- I can choose the best locations for my content - I can make changes to content after I've added it - I can paste text and images to create a magazine cover																		- Copyright and ownership - Managing online information
3	5	Desktop publishing	5	To consider how different layouts can suit different purposes	- I can choose a suitable layout for a given purpose - I can identify different layouts - I can match a layout to a purpose																		- Copyright and ownership - Managing online information
3	5	Desktop publishing	6	To consider the benefits of desktop publishing	- I can compare work made on desktop publishing to work created by hand - I can identify the uses of desktop publishing in the real world - I can say why desktop publishing might be helpful																		- Copyright and ownership - Managing online information
3	6	Events and actions	1	To explain how a sprite moves in an existing project	- I can choose which keys to use for actions and explain my choices - I can explain the relationship between an event and an action - I can identify a way to improve a program																		
3	6	Events and actions	2	To create a program to move a sprite in four directions	- I can choose a character for my project - I can choose a suitable size for a character in a maze - I can program movement																		
3	6	Events and actions	3	To adapt a program to a new context	- I can choose blocks to set up my program - I can consider the real world when making design choices - I can use a programming extension																		
3	6	Events and actions	4	To develop my program by adding features	- I can build more sequences of commands to make my design work - I can choose suitable keys to turn on additional features - I can identify additional features (from a given set of blocks)																		
3	6	Events and actions	5	To identify and fix bugs in a program	- I can match a piece of code to an outcome - I can modify a program using a design - I can test a program against a given design																		
3	6	Events and actions	6	To design and create a maze-based challenge	- I can evaluate my project - I can implement my design - I can make design choices and justify them																		
4	1	The Internet	1	To describe how networks physically connect to other networks	- I can demonstrate how information is shared across the internet - I can describe the internet as a network of networks - I can discuss why a network needs protecting																		
4	1	The Internet	2	To recognise how networked devices make up the internet	- I can describe the different networked devices and how they connect - I can explain how the internet allows us to view the World Wide Web - I can recognise that the World Wide Web is the part of the internet that contains websites and web pages																		
4	1	The Internet	3	To outline how websites can be shared via the World Wide Web	- I can describe how to access websites on the WWW - I can describe where websites are stored when uploaded to the WWW - I can explain the types of media that can be shared on the World Wide Web (WWW)																		
4	1	The Internet	4	To describe how content can be added and accessed on the World Wide Web	- I can create media which can be found on websites - I can explain that new content can be created online - I can recognise that I can add content to the WWW																		
4	1	The Internet	5	To recognise how the content of the WWW is created by people	- I can explain that there are rules to protect content - I can explain that websites and their content are created by people - I can suggest who owns the content on websites																		
4	1	The Internet	6	To evaluate the consequences of unreliable content	- I can explain that not everything on the World Wide Web is true. - I can explain why I need to think carefully before I share or reshare content - I can explain why some information I find online may not be honest, accurate, or legal.																		
4	2	Audio editing	1	To identify that sound can be digitally recorded:	- I can identify digital devices that can record sound and play it back - I can identify the inputs and outputs required to play audio or record sound - I can recognise the range of sounds that can be recorded																		- Copyright and ownership

4	2	Audio editing	2	To use a digital device to record sound:	- I can discuss what other people include when recording sound for a podcast - I can suggest how to improve my recording - I can use a device to record audio and play back sound																	- Copyright and ownership
4	2	Audio editing	3	To explain that a digital recording is stored as a file:	- I can discuss why it is useful to be able to save digital recordings - I can plan and write the content for a podcast - I can save a digital recording as a file																	- Copyright and ownership
4	2	Audio editing	4	To explain that audio can be changed through editing:	- I can discuss ways in which audio recordings can be altered - I can edit sections of of an audio recording - I can open a digital recording from a file																	- Copyright and ownership
4	2	Audio editing	5	To show that different types of audio can be combined and played together:	- I can choose suitable sounds to include in a podcast - I can discuss sounds that other people combine - I can use editing tools to arrange sections of audio																	- Copyright and ownership
4	2	Audio editing	6	To evaluate editing choices made:	- I can discuss the features of a digital recording I like - I can explain that digital recordings need to be exported to share them - I can suggest improvements to a digital recording																	- Copyright and ownership
4	3	Repetition in shapes	1	To identify that accuracy in programming is important	- I can create a code snippet for a given purpose - I can explain the effect of changing a value of a command - I can program a computer by typing commands																	
4	3	Repetition in shapes	2	To create a program in a text-based language	- I can test my algorithm in a text-based language - I can use a template to create a design for my program - I can write an algorithm to produce a given outcome																	
4	3	Repetition in shapes	3	To explain what ‘repeat’ means	- I can identify everyday tasks that include repetition as part of a sequence, eg brushing teeth, dance moves - I can identify patterns in a sequence, eg ‘step 3 times’ means the same as ‘step, step, step’ - I can use a count-controlled loop to produce a given outcome																	
4	3	Repetition in shapes	4	To modify a count-controlled loop to produce a given outcome	- I can choose which values to change in a loop - I can identify the effect of changing the number of times a task is repeated - I can predict the outcome of a program containing a count-controlled loop																	
4	3	Repetition in shapes	5	To decompose a program into parts	- I can explain that a computer can repeatedly call a procedure - I can identify ‘chunks’ of actions in the real world - I can use a procedure in a program																	
4	3	Repetition in shapes	6	To create a program that uses count-controlled loops to produce a given outcome	- I can design a program that includes count-controlled loops - I can develop my program by debugging it - I can make use of my design to write a program																	
4	4	Data logging	1	To explain that data gathered over time can be used to answer questions	- I can choose a data set to answer a given question - I can identify data that can be gathered over time - I can suggest questions that can be answered using a given data set																	
4	4	Data logging	2	To use a digital device to collect data automatically	- I can explain that sensors are input devices - I can identify that data from sensors can be recorded - I can use data from a sensor to answer a given question																	
4	4	Data logging	3	To explain that a data logger collects ‘data points’ from sensors over time	- I can identify a suitable place to collect data - I can identify the intervals used to collect data - I can talk about the data that I have captured																	
4	4	Data logging	4	To use data collected over a long duration to find information	- I can import a data set - I can use a computer program to sort data - I can use a computer to view data in different ways																	
4	4	Data logging	5	To identify the data needed to answer questions	- I can plan how to collect data using a data logger - I can propose a question that can be answered using logged data - I can use a data logger to collect data																	
4	4	Data logging	6	To use collected data to answer questions	- I can draw conclusions from the data that I have collected - I can explain the benefits of using a data logger - I can interpret data that has been collected using a data logger																	
4	5	Photo editing	1	To explain that digital images can be changed	- I can explain the effect that editing can have on an image - I can explore how images can be changed in real life - I can identify changes that we can make to an image																	- Copyright and ownership - Self-image and identity
4	5	Photo editing	2	To change the composition of an image	- I can change the composition of an image by selecting parts of it - I can consider why someone might want to change the composition of an image - I can explain what has changed in an edited image																	- Copyright and ownership - Self-image and identity
4	5	Photo editing	3	To describe how images can be changed for different uses	- I can choose effects to make my image fit a scenario - I can explain why my choices fit a scenario - I can talk about changes made to images																	- Copyright and ownership - Self-image and identity
4	5	Photo editing	4	To make good choices when selecting different tools	- I can choose appropriate tools to retouch an image - I can give examples of positive and negative effects that retouching can have on an image - I can identify how an image has been retouched																	- Copyright and ownership - Self-image and identity
4	5	Photo editing	5	To recognise that not all images are real	- I can combine parts of images to create new images - I can sort images into ‘fake’ or ‘real’ and explain my choices - I can talk about fake images around me																	- Copyright and ownership - Self-image and identity

4	5	Photo editing	6	To evaluate how changes can improve an image	- I can compare the original image with my completed publication - I can consider the effect of adding other elements to my work - I can evaluate the impact of my publication on others through feedback																	- Copyright and ownership - Self-image and identity
4	6	Repetition in games	1	To develop the use of count-controlled loops in a different programming environment	- I can list an everyday task as a set of instructions including repetition - I can modify a snippet of code to create a given outcome - I can predict the outcome of a snippet of code																	
4	6	Repetition in games	2	To explain that in programming there are infinite loops and count controlled loops	- I can choose when to use a count-controlled and an infinite loop - I can modify loops to produce a given outcome - I can recognise that some programming languages enable more than one process to be run at once																	
4	6	Repetition in games	3	To develop a design which includes two or more loops which run at the same time	- I can choose which action will be repeated for each object - I can evaluate the effectiveness of the repeated sequences used in my program - I can explain what the outcome of the repeated action should be																	
4	6	Repetition in games	4	To modify an infinite loop in a given program	- I can explain the effect of my changes - I can identify which parts of a loop can be changed - I can re-use existing code snippets on new sprites																	
4	6	Repetition in games	5	To design a project that includes repetition	- I can develop my own design explaining what my project will do - I can evaluate the use of repetition in a project - I can select key parts of a given project to use in my own design																	
4	6	Repetition in games	6	To create a project that includes repetition	- I can build a program that follows my design - I can evaluate the steps I followed when building my project - I can refine the algorithm in my design																	
5	1	Sharing information	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																	- Copyright and ownership
5	1	Sharing information	2	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																	- Copyright and ownership
5	1	Sharing information	3	To recognise how information is transferred over the internet	- I can explain that data is transferred over networks in packets - I can explain that networked digital devices have unique addresses - I can recognise that data is transferred using agreed methods																	- Copyright and ownership
5	1	Sharing information	4	To explain how sharing information online lets people in different places work together	- I can explain that the internet allows different media to be shared - I can recognise that connected digital devices can allow us to access shared files stored online - I can send information over the internet in different ways																	- Copyright and ownership
5	1	Sharing information	5	To contribute to a shared project online	- I can compare working online with working offline - I can make thoughtful suggestions on my group's work - I can suggest strategies to ensure successful group work																	- Copyright and ownership
5	1	Sharing information	6	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																	- Copyright and ownership
5	2	Video editing	1	To recognise video as moving pictures, which can include audio	- I can explain that a video can include both visual and audio media - I can explain the benefits of adding audio to a video - I can plan a video project using a storyboard																	- Managing online information - Online relationships - Online reputation - Self-image and identity
5	2	Video editing	2	To identify digital devices that can record video	- I can choose the most suitable digital device for recording my project - I can identify and name digital devices that can record video and sound - I can locate and identify the working features of a digital device that can record video																	- Managing online information - Online relationships - Online reputation - Self-image and identity
5	2	Video editing	3	To capture video using a digital device	- I can demonstrate suitable methods of using a digital device to capture my video - I can demonstrate the safe use and handling of devices - I can select a suitable device and software to capture my video																	- Managing online information - Online relationships - Online reputation - Self-image and identity
5	2	Video editing	4	To recognise the features of an effective video	- I can explain why lighting and angle are important in creating an effective video - I can list some of the features of an effective video - I can record a video that demonstrates some of the features of an effective video																	- Managing online information - Online relationships - Online reputation - Self-image and identity
5	2	Video editing	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																	- Managing online information - Online relationships - Online reputation - Self-image and identity

5	2	Video editing	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																		- Managing online information - Online relationships - Online reputation - Self-image and identity
5	3	Selection in physical computing	1	To control a simple circuit connected to a computer	- I can build a simple circuit to connect a microcontroller to a computer - I can explain why I used an infinite loop - I can program a microcontroller to light an LED																		
5	3	Selection in physical computing	2	To write a program that includes count-controlled loops	- I can connect more than one output device to a microcontroller - I can decide which output devices I control with a count-controlled loop - I can design sequences for given output devices																		
5	3	Selection in physical computing	3	To explain that a loop can stop when a condition is met, eg number of times	- I can experiment with a 'do until' loop - I can explain that a condition is something that can either be true or false (eg whether a value is more than 10, or whether a button has been pressed) - I can program a microcontroller to respond to an input																		
5	3	Selection in physical computing	4	To conclude 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																		
5	3	Selection in physical computing	5	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 (the task) - I can identify a condition to start an action (real world)																		
5	3	Selection in physical computing	6	To create a controllable system that includes selection	- I can test and debug my project - I can use selection to produce an intended outcome - I can write an algorithm to control lights and a motor																		
5	4	Flat-file databases	1	To use a form to record information	- I can create multiple questions about the same field - I can explain how information can be recorded - I can order, sort, and group my data cards																		
5	4	Flat-file databases	2	To compare paper and computer-based databases	- I can choose which field to sort data by to answer a given question - I can explain what a 'field' and a 'record' is in a database - I can navigate a flat-file database to compare different views of information																		
5	4	Flat-file databases	3	To outline how grouping and then sorting data allows us to answer questions	- I can combine grouping and sorting to answer more specific questions - I can explain how information can be grouped - I can group information to answer questions																		
5	4	Flat-file databases	4	To explain that tools can be used to select specific data	- I can choose multiple criteria to answer a given question - I can choose which field and value are required to answer a given question - I can outline how 'AND' and 'OR' can be used to refine data selection																		
5	4	Flat-file databases	5	To explain that computer programs can be used to compare data visually	- I can explain the benefits of using a computer to create graphs - I can refine a chart by selecting a particular filter - I can select an appropriate chart to visually compare data																		
5	4	Flat-file databases	6	To apply my knowledge of a database to ask and answer real-world questions	- I can ask questions that will need more than one field to answer - I can present my findings to a group - I can refine a search in a real-world context																		
5	5	Vector drawing	1	To identify that drawing tools can be used to produce different outcomes	- I can discuss how a vector drawing is different from paper-based drawings - I can identify the main drawing tools - I can recognise that vector drawings are made using shapes																		- Copyright and ownership
5	5	Vector drawing	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																		- Copyright and ownership
5	5	Vector drawing	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 different effects - I can use the zoom tool to help me add detail to my drawings																		- Copyright and ownership
5	5	Vector drawing	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 identify which objects are in the front layer or in the back layer of a drawing																		- Copyright and ownership
5	5	Vector drawing	5	To group objects to make them easier to work with	- I can copy part of a drawing by duplicating several objects - I can group to create a single object - I can reuse a group of objects to further develop my vector drawing																		- Copyright and ownership
5	5	Vector drawing	6	To evaluate my vector drawing	- I can apply what I have learned about vector drawings - I can suggest improvements to a vector drawing - I create alternatives to vector drawings																		- Copyright and ownership
5	6	Selection in quizzes	1	To explain how selection is used in computer programs	- I can identify conditions in a program - I can modify a condition in a program - I can recall how conditions are used in selection																		

5	6	Selection in quizzes	2	To relate that a conditional statement connects a condition to an outcome	- I can create a program with different outcomes using selection - I can identify the condition and outcomes in an if..then… else statement - I can use selection in an infinite loop to check a condition																		
5	6	Selection in quizzes	3	To explain how selection directs the flow of a program	- I can design the flow of a program which contains 'if… then… else…' - I can explain that program flow can branch according to a condition - I can show that a condition can direct program flow in one of two ways																		
5	6	Selection in quizzes	4	To design a program which uses selection	- I can identify the outcome of user input in an algorithm - I can outline a given task - I can use a design format to outline my project																		
5	6	Selection in quizzes	5	To create a program which uses selection	- I can implement my algorithm to create the first section of my program - I can share my program with others - I can test my program																		
5	6	Selection in quizzes	6	To evaluate my program	- I can extend my program further - I can identify ways the program could be improved - I can identify what setup code my project needs																		
6	1	Communication	1	To identify how to use a search engine	- I can compare results from different search engines - I can complete a web search to find specific information - I can refine my search																		- Managing online information - Online reputation
6	1	Communication	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																		- Managing online information - Online reputation
6	1	Communication	3	To explain how search results are ranked	- I can explain that a search engine follows rules to rank relevant pages - I can explain that search results are ordered - I can suggest some of the criteria that a search engine checks to decide on the order of results																		- Managing online information - Online reputation
6	1	Communication	4	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																		- Managing online information - Online reputation
6	1	Communication	5	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 of communicating over the internet																		- Managing online information - Online reputation
6	1	Communication	6	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 - I can explain that communication on the internet may not be private																		- Managing online information - Online reputation
6	2	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																		- Copyright and ownership - Online relationships
6	2	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																		- Copyright and ownership - Online relationships
6	2	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																		- Copyright and ownership - Online relationships
6	2	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																		- Copyright and ownership - Online relationships
6	2	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																		- Copyright and ownership - Online relationships
6	2	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																		- Copyright and ownership - Online relationships
6	3	Variables in games	1	To define a 'variable' as something that is changeable	- I can explain that the way that a variable changes can be defined - I can identify examples of information that is variable - I can identify that variables can hold numbers or letters																		
6	3	Variables in games	2	To explain why a variable is used in a program	- I can explain that a variable has a name and a value - I can identify a program variable as a placeholder in memory for a single value - I can recognise that the value of a variable can be changed																		
6	3	Variables in games	3	To choose how to improve a game by using variables	- I can decide where in a program to change a variable - I can make use of an event in a program to set a variable - I can recognise that the value of a variable can be used by a program																		
6	3	Variables in games	4	To design a project that builds on a given example	- I can choose the artwork for my project - I can create algorithms for my project - I can explain my design choices																		
6	3	Variables in games	5	To use my design to create a project	- I can choose a name that identifies the role of a variable - I can create the artwork for my project - I can test the code that I have written																		

6	3	Variables in games	6	To evaluate my project	- I can extend my game further using more variables - I can identify ways that my game could be improved - I can share my game with others																		
6	4	Introduction to spreadsheets	1	To identify questions which can be answered using data	- I can answer questions from an existing data set - I can ask simple relevant questions which can be answered using data - I can explain the relevance of data headings																		
6	4	Introduction to spreadsheets	2	To explain that objects can be described using data	- I can apply an appropriate number format to a cell - I can build a data set in a spreadsheet application - I can explain what an item of data is																		
6	4	Introduction to spreadsheets	3	To explain that formula can be used to produce calculated data	- I can construct a formula in a spreadsheet - I can explain the relevance of a cell's data type - I can identify that changing inputs changes outputs																		
6	4	Introduction to spreadsheets	4	To apply formulas to data, including duplicating	- I can apply a formula to multiple cells by duplicating it - I can create a formula which includes a range of cells - I can recognise that data can be calculated using different operations																		
6	4	Introduction to 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																		
6	4	Introduction to spreadsheets	6	To choose suitable ways to present data	- I can produce a graph - I can suggest when to use a table or graph - I can use a graph to show the answer to questions																		
6	5	3D Modelling	1	To use a computer to create and manipulate three-dimensional (3D) digital objects	- I can discuss the similarities and differences between 2D and 3D shapes - I can explain why we might represent 3D objects on a computer - I can select, move, and delete a digital 3D shape																		- Privacy and security
6	5	3D Modelling	2	To compare working digitally with 2D and 3D graphics	- I can change the colour of a 3D object - I can identify how graphical objects can be modified - I can resize a 3D object																		- Privacy and security
6	5	3D Modelling	3	To construct a digital 3D model of a physical object	- I can position 3D objects in relation to each other - I can rotate a 3D object - I can select and duplicate multiple 3D objects																		- Privacy and security
6	5	3D Modelling	4	To identify that physical objects can be broken down into a collection of 3D shapes	- I can create digital 3D objects of an appropriate size - I can group a digital 3D shape and a placeholder to create a hole in an object - I can identify the 3D shapes needed to create a model of a real-world object																		- Privacy and security
6	5	3D Modelling	5	To design a digital model by combining 3D objects	- I can choose which 3D objects I need to construct my model - I can modify multiple 3D objects - I can plan my 3D model																		- Privacy and security
6	5	3D Modelling	6	To develop and improve a digital 3D model	- I can decide how my model can be improved - I can evaluate my model against a given criterion - I can modify my model to improve it																		- Privacy and security
6	6	Sensing	1	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																		
6	6	Sensing	2	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																		
6	6	Sensing	3	To update a variable with a user input	- I can experiment with different physical inputs - I can explain that if you read a variable, the value remains - I can use a condition to change a variable																		
6	6	Sensing	4	To use an 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																		
6	6	Sensing	5	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																		
6	6	Sensing	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																		