Computing – Teaching Sequence 2023-24

Year 6		
Lesson	Autumn 1 – Internet Communication (Y6 & Y5)	Autumn 2 – Web Page Creation
1 Y6	To explain the importance of internet addresses • I can recognise that data is transferred using agreed methods • I can explain that internet devices have addresses • I can describe how computers use addresses to access websites	To review an existing website and consider its structure • I can explore a website • I can discuss the different types of media used on websites • I know that websites are written in HTML
2 Y6	To recognise how data is transferred across the internet • I can identify and explain the main parts of a data packet • I can explain that data is transferred over networks in packets • I can explain that all data transferred over the internet is in packets	To plan the features of a web page • I can recognise the common features of a web page • I can suggest media to include on my page • I can draw a web page layout that suits my purpose
3 Y5	To identify how to use a search engine • I can complete a web search to find specific information • I can refine my search • I can compare results from different search engines	To consider the ownership and use of images (copyright) • I can say why I should use copyright-free images • I can find copyright-free images • I can describe what is meant by the term 'fair use'
4 Y5	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	To recognise the need to preview pages • I can add content to my own web page • I can preview what my web page looks like • I can evaluate what my web page looks like on different devices and suggest/make edits
5 Y5	To explain how search results are ranked • I can explain that search results are ordered • I can explain that a search engine follows rules to rank relevant pages	To outline the need for a navigation path • I can explain what a navigation path is • I can describe why navigation paths are useful

	• I can suggest some of the criteria that a search engine checks to decide on the order of results	• I can make multiple web pages and link them using hyperlinks
6 Y5	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 recognise some of the limitations of search engines • I can explain how search engines make money	To recognise the implications of linking to content owned by other people • I can explain the implication of linking to content owned by others • I can create hyperlinks to link to other people's work • I can evaluate the user experience of a website
	Spring 1 – 3D Modelling	Spring 2 – Variables in Games
1	To recognise that you can work in three dimensions on a computer • I can add 3D shapes to a project • I can view 3D shapes from different perspectives • I can move 3D shapes relative to one another	To define a 'variable' as something that is changeable • I can identify examples of information that is variable • I can explain that the way a variable changes can be defined • I can identify that variables can hold numbers or letters
2	To identify that digital 3D objects can be modified • I can resize an object in three dimensions • I can lift/lower 3D objects • I can recolour a 3D object	To explain why a variable is used in a program • I can identify a program variable as a placeholder in memory for a single value • I can explain that a variable has a name and a value • I can recognise that the value of a variable can be changed
3	To recognise that objects can be combined in a 3D model • I can rotate objects in three dimensions • I can duplicate 3D objects • I can group 3D objects	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
4	To create a 3D model for a given purpose • I can accurately size 3D objects • I can show that placeholders can create holes in 3D objects • I can combine a number of 3D objects	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
5	To plan my own 3D model • I can analyse a 3D model	To use my design to create a project • I can create the artwork for my project

	• I can choose objects to use in a 3D model • I can combine objects in a design	• I can choose a name that identifies the role of a variable • I can test the code that I have written
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	To evaluate my project • I can identify ways that my game could be improved • I can use variables to extend my game • I can share my game with others
	Summer 1 – Introduction to Spreadsheets	Summer 2 Sensing Movement
1	To create a data set in a spreadsheet • I can collect data • I can suggest how to structure my data • I can enter data into a spreadsheet	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
2	To build a data set in a spreadsheet • I can explain what an item of data is • I can choose an appropriate format for a cell • I can apply an appropriate format to a cell	To explain that selection can control the flow of a program • 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 • I can determine the flow of a program using selection
3	To explain that formulas can be used to produce calculated data • I can explain which data types can be used in calculations • I can construct a formula in a spreadsheet • I can identify that changing inputs changes outputs	To update a variable with a user input • I can use a condition to change a variable • I can experiment with different physical inputs • I can explain that checking a variable doesn't change its value
4	To apply formulas to data • I can calculate data using different operations • I can create a formula which includes a range of cells • I can apply a formula to multiple cells by duplicating it	To use a conditional statement to compare a variable to a value • I can use a comparison operator (e.g. <>=) in an if, then statement • I can explain the importance of the order of conditions in else, if statements • I can modify a program to achieve a different outcome
5	To create a spreadsheet to plan an event • I can use a spreadsheet to answer questions	To design a project that uses inputs and outputs on a controllable device

	• I can explain why data should be organised • I can apply a formula to calculate the data I need to answer questions	• 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	To choose suitable ways to present data • I can produce a chart • I can use a chart to show the answer to questions • I can suggest when to use a table or chart	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