HT1 – Computing Systems and Networks – Internet Communication	
Recall	What is … System Connection Digital Input Process output
End Point (National Curriculum Statements)	Understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration.
Prior Learning	Y5 HT1
Sequence of Learning / Contextual Knowledge (Lesson ideas) **Disciplinary Knowledge**	I can identify how to use a search engine. I can describe how search engines select results. I can explain how search results are ranked. I can recognise why the order of results is important, and to whom. I can recognise how we communicate using technology. **I can evaluate different methods of online communication.** " -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 " " -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" " -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" " -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" " -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" " -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"
Next Steps	Y7
Key Vocabulary	Search engine Address bar Browser Web crawler Website
Teacher Assessment	
Possible Misconceptions	
Class Teacher Notes	

HT2 & HT3 – Creating Media – HT2 – 3D Modelling HT3 – Webpage creation	
Recall	What is the difference between text and images What is... Copy Paste Undo Rotate Expand and shrink

End Point (National Curriculum Statements)	Ensure pupils are responsible, competent, confident and creative users of information and communication technology.
Prior Learning	Y5 HT2
Sequence of Learning / Contextual Knowledge (Lesson ideas) **Disciplinary Knowledge**	3D Modelling I can use a computer to create and manipulate three-dimensional (3D) digital objects. I can compare working digitally with 2D and 3D graphics. I can construct a digital 3D model of a physical object. I can identify that physical objects can be broken down into a collection of 3D shapes. **I can design a digital model by combining 3D objects.** I can develop and improve a digital 3D model. Web Page Creation I can review an existing website and consider its structure. I can plan the features of a web page. I can consider the ownership and use of images (copyright). I can recognise the need to preview pages. I can outline the need for a navigation path. **I can create a simple web page** I can recognise the implications of linking content owned by other people. " -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" " -I can lift/lower 3D objects - I can recolour a 3D object - I can resize an object in three dimensions" " -I can duplicate 3D objects - I can group 3D objects - I can rotate objects in three dimensions" " -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" " -I can analyse a 3D model - I can choose objects to use in a 3D model - I can combine objects in a design" " -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" " -I can discuss the different types of media used on websites - I can explore a website - I know that websites are written in HTML" " -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" " -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" " -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" " -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" " -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"
Next Steps	<u>Y7</u>
Key Vocabulary	Move Enlarge Manipulate

	Zoom in/out Navigate
Teacher Assessment	
Possible Misconceptions	
Class Teacher Notes	

HT4 – Introduction to Spreadsheets (Excel)	
Recall	What is a group? How can you group data? What is a flat file database? What is… Keywords Data Form Filter
End Point (National Curriculum Statements)	use technology purposefully to create, organise, store, manipulate and retrieve digital content
Prior Learning	Y5 HT4
Sequence of Learning / Contextual Knowledge (Lesson ideas) **Disciplinary Knowledge**	I can identify questions which can be answered using data. I can explain that objects can be described using data. I can explain that formulas can be used to produce calculated data. I can apply formulas to data, including duplicating. **I can create a spreadsheet to plan an event.** I can choose suitable ways to present data.

	" -I can collect data - I can enter data into a spreadsheet - I can suggest how to structure my data" " -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" " -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" " -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" " -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" " -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"
Next Steps	Y7
Key Vocabulary	Formula Cell Sort Spreadsheet
Teacher Assessment	
Possible Misconceptions	
Class Teacher Notes	

HT5 & 6 – Programming HT5 Variables in Games (Scratch) HT6 – Sensing (Microbit/Scratch)	
Recall	What is a sequence What is a 'sprite? What is Commands Sequence Order Sprite Algorithm
End Point (National Curriculum Statements)	understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions
Prior Learning	Y5 HT5
Sequence of Learning / Contextual Knowledge (Lesson ideas) **Disciplinary Knowledge**	Variables in Games I can define a 'variable' as something that is changeable. I can explain why a variable is used in a program. I can choose how to improve a game by using variables. I can design a project that builds on a given example. **I can use my design to create a project.** I can evaluate my project. Sensing I can create a program to run on a controllable device. I can explain that selection can control the flow of a program. I can update a variable with a user input. I can use a conditional statement to compare a variable to a value. I can design a project that uses inputs and outputs on a controllable device. I can develop a program to use inputs and outputs on a controllable device.

	" -I can explain that the way 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" " -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" " -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" " -I can choose the artwork for my project - I can create algorithms for my project - I can explain my design choices" " -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" " -I can identify ways that my game could be improved - I can share my game with others - I can use variables to extend my game" " -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" " -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" " -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" " -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. qG=) in an if, then statement" " -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" " -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"
Next Steps	Y7
Key Vocabulary	Commands Sequence Order Sprite Algorithm
Teacher Assessment	
Possible Misconceptions	
Class Teacher Notes	