HT1 – Computing Systems and Networks – Connecting Computers (ppt)	
Recall	What is... Input Device Output Device Network Server
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.
Sequence of Learning / Contextual Knowledge (Lesson ideas) **Disciplinary Knowledge**	I can explain how digital devices function. I can identify input and output devices I recognise how digital devices can change the way we work. I can explain how a computer network can be used to share information. I can explore how digital devices can be connected. I can recognise the physical components of a network. " -I can explain that digital devices accept inputs - I can explain that digital devices produce outputs - I can follow a process" " -I can classify input and output devices - I can describe a simple process - I can design a digital device" " -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" " -I can discuss why we need a network switch - I can explain how messages are passed through multiple connections - I can recognise different connections" " -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"

	" -I can identify how devices in a network are connected together - I can identify networked devices around me - I can identify the benefits of computer networks"
Key Vocabulary	Input Device Output Device Network Server
Teacher Assessment	
Possible Misconceptions	
Class Teacher Notes	

HT2 & HT3 – Creating Media – HT2 – Stop Frame Animation - HT3 Desktop Publishing	
Recall	What is... device camera photograph capture image digital landscape and portrait lighting
End Point (National Curriculum Statements)	Ensure pupils are responsible, competent, confident and creative users of information and communication technology.
Prior learning	Y2 HT1

Sequence of Learning / Contextual Knowledge (Lesson ideas) **Disciplinary Knowledge**	<u>Animation</u> I can explain that animation is a sequence of drawings or photographs. I can relate animated movement with a sequence of images. I can plan an animation. I can identify the need to work consistently and carefully. **I can create an animation** I can review and improve an animation. I can evaluate the impact of adding other media to an animation. <u>Desktop Publishing</u> I recognise how text and images convey information. I can recognise that text and layout can be edited. I can choose appropriate page settings. **I can add content to a desktop publishing publication.** I can consider how different layouts can suit different purposes. I can consider the benefits of desktop publishing. " -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" " -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" " -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" " -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" " -I can evaluate another learner's animation - I can explain ways to make my animation better - I can improve my animation based on feedback"

	" -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" " -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" " -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" " -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" " -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" " -I can choose a suitable layout for a given purpose - I can identify different layouts - I can match a layout to a purpose" " -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"
Next steps	<u>Y4 HT1</u>
Key Vocabulary	Animation Stop Motion Stop Frame Onion Skin lighting

Teacher Assessment	
Possible Misconceptions	
Class Teacher Notes	

HT4 – Data and information – Branching Databases	
Recall	What is... Tally Pictogram Comparison How can you group data?
End Point (National Curriculum Statements)	use technology purposefully to create, organise, store, manipulate and retrieve digital content
Prior Learning	Y2 – HT4
Sequence of Learning / Contextual Knowledge (Lesson ideas) **Disciplinary Knowledge**	I can create questions with yes/no answers. I can identify the object attributes needed to collect relevant data. **I can create a branching database.** I can explain why it is helpful for a database to be well structured. I can identify objects using a branching database. I can compare the information shown in a pictogram with a branching database. " -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" " -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 into groups" " -I can group objects using my own yes/no questions - I can select objects to arrange in a branching database - I can test my branching database to see if it works" " -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" " -I can create a physical version of a branching database - I can create questions that will enable objects to be uniquely identified - I can independently create questions to use in a branching database " " -I can create a branching database that reflects my plan - I can suggest real-world uses for branching databases - I can work with a partner to test my identification tool"
Next Steps	Y4 HT4
Key Vocabulary	Keywords Branch Structure Comparison
Teacher Assessment	
Possible Misconceptions	
Class Teacher Notes	

HT5 & 6 – Programming HT5 Sequencing Sounds (Scratch) HT6 Events and Actions (Scratch)	
Recall	What is... Sequence

	Instructions 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	Y2 HT5
Sequence of Learning / Contextual Knowledge (Lesson ideas) **Disciplinary Knowledge**	Sequence in Music I can explore a new programming environment. I can identify that commands have an outcome. I can explain that a program has a start. I can recognise that a sequence of commands can have an order. I can change the appearance of my project. **I can create a project from a task description.** Events and Actions I can explain how a sprite moves in an existing project. I can create a program to move a sprite in four directions. I can adapt a program to a new context. I can develop my program by adding features. I can identify and fix bugs in a program. **I can design and create a maze-based challenge.** " -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" " -I can choose a word which describes an on-screen action for my plan - I can create a program following a design - I can identify that each sprite is controlled by the commands I choose"

	" -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" " -I can combine sound commands - I can explain what a sequence is - I can order notes into a sequence" " -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" " -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" " -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" " -I can choose a character for my project - I can choose a suitable size for a character in a maze - I can program movement" " -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" " -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)" " -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" " -I can evaluate my project - I can implement my design - I can make design choices and justify them"

Medium Term Plan - Year 3 – Computing

Next Steps	Y4 HT5
Key Vocabulary	Commands Sequence Order Sprite Algorithm
Teacher Assessment	
Possible Misconceptions	
Class Teacher Notes	