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| **Year 3 Overview** | | | | |
| **Unit Name** | **Lesson** | **Learning Objectives** | **Success Criteria** | **Cross Curricular Links** |
| **Autumn 1** | | | | |
| Computing systems and networks – Connecting computers | 1 | Can I 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 |  |
| Computing systems and networks – Connecting computers | 2 | Can I identify input and output devices? | -I can classify input and output devices - I can describe a simple process - I can design a digital device |  |
| Computing systems and networks – Connecting computers | 3 | Can I 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 |  |
| Computing systems and networks – Connecting computers | 4 | Can I 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 |  |
| Computing systems and networks – Connecting computers | 5 | Can I 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 |  |
| Computing systems and networks – Connecting computers | 6 | Can I recognise the physical components of a network? | -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 |  |
| **Autumn 2** | | | | |
| Creating media - Stop-frame animation | 1 | Can I 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 |  |
| Creating media - Stop-frame animation | 2 | Can I 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 |  |
| Creating media - Stop-frame animation | 3 | Can I 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 |  |
| Creating media - Stop-frame animation | 4 | Can I 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 |  |
| Creating media - Stop-frame animation | 5 | Can I 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 |  |
| Creating media - Stop-frame animation | 6 | Can I 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 |  |
| **Spring 1** | | | | |
| Programming A - Sequencing sounds | 1 | Can I 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 |  |
| Programming A - Sequencing sounds | 2 | Can I identify that commands have an outcome? | -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 |  |
| Programming A - Sequencing sounds | 3 | Can I 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 |  |
| Programming A - Sequencing sounds | 4 | Can I 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 |  |
| Programming A - Sequencing sounds | 5 | Can I 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 |  |
| Programming A - Sequencing sounds | 6 | Can I 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 |  |
| **Spring 2** | | | | |
| Data and information – Branching databases | 1 | Can I 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 |  |
| Data and information – Branching databases | 2 | Can I identify the attributes needed to collect data about an object? | -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 |  |
| Data and information – Branching databases | 3 | Can I create a branching database? | -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 |  |
| Data and information – Branching databases | 4 | Can I 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 |  |
| Data and information – Branching databases | 5 | Can I plan the structure of a branching database? | -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 |  |
| Data and information – Branching databases | 6 | Can I independently create an identification tool? | -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 |  |
| **Summer 1** | | | | |
| Creating media – Desktop publishing | 1 | Can I 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 |  |
| Creating media – Desktop publishing | 2 | Can I 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 |  |
| Creating media – Desktop publishing | 3 | Can I 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 |  |
| Creating media – Desktop publishing | 4 | Can I 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 |  |
| Creating media – Desktop publishing | 5 | Can I 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 |  |
| Creating media – Desktop publishing | 6 | Can I 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 |  |
| **Summer 2** | | | | |
| Programming B - Events and actions in programs | 1 | Can I 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 |  |
| Programming B - Events and actions in programs | 2 | Can I 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 |  |
| Programming B - Events and actions in programs | 3 | Can I 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 |  |
| Programming B - Events and actions in programs | 4 | Can I 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) |  |
| Programming B - Events and actions in programs | 5 | Can I 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 |  |
| Programming B - Events and actions in programs | 6 | Can I 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 |  |