Computing – Teaching Sequence 2023-24

Year 3		
Lesson	Autumn 1 – Connecting Computers	Autumn 2 – Stop Frame Animation
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	To explain that animation is a sequence of drawings or photographs • I can draw a sequence of pictures • I can create an effective flipbook–style animation • I can explain how an animation/flip book works
2	To identify input and output devices • I can classify input and output devices • I can describe a simple process • I can design a digital device	To relate animated movement with a sequence of images • I can predict what an animation will look like • I can explain why little changes are needed for each frame • I can create an effective stop-frame animation
3	To recognise how digital devices can change the way that we work • I can explain how I use digital devices for different activities • I can recognise similarities between using digital devices and using non-digital tools • I can suggest differences between using digital devices and using non-digital tools	To plan an animation • I can break down a story into settings, characters, and events • I can describe an animation that is achievable on screen • I can create a storyboard
4	To explain how a computer network can be used to share information • I can recognise different connections • I can explain how messages are passed through multiple connections • I can discuss why we need a network switch	To identify the need to work consistently and carefully • I can use onion skinning to help me make small changes between frames • I can review a sequence of frames to check my work • I can evaluate the quality of my animation
5	To explore how digital devices can be connected • I can recognise that a computer network is made up of a number of devices • I can demonstrate how information can be passed between devices	To review and improve an animation • I can explain ways to make my animation better • I can evaluate another learner's animation • I can improve my animation based on feedback

	• I can explain the role of a switch, server, and wireless access point in a network	
6	To 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	To evaluate the impact of adding other media to an animation • I can add other media to my animation • I can explain why I added other media to my animation • I can evaluate my final film
	Spring 1 – Sequencing Sounds	Spring 2 – Branching Databases
1	To explore a new programming environment • I can identify the objects in a Scratch project (sprites, backdrops) • I can explain that objects in Scratch have attributes (linked to) • I can recognise that commands in Scratch are represented as blocks	To create questions with yes/no answers • I can investigate questions with yes/no answers • I can make up a yes/no question about a collection of objects • I can create two groups of objects separated by one attribute
2	To identify that commands have an outcome • 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 plan • I can create a program following a design	To identify the attributes needed to collect data about an object • I can select an attribute to separate objects into groups • I can create a group of objects within an existing group • I can arrange objects into a tree structure
3	To explain that a program has a start • I can start a program in different ways • I can create a sequence of connected commands • I can explain that the objects in my project will respond exactly to the code	To create a branching database • I can select objects to arrange in a branching database • I can group objects using my own yes/no questions • I can test my branching database to see if it works
4	To recognise that a sequence of commands can have an order • I can explain what a sequence is • I can combine sound commands • I can order notes into a sequence	To explain why it is helpful for a database to be well structured • I can create yes/no questions using given attributes • I can compare two branching database structures • I can explain that questions need to be ordered carefully to split objects into similarly sized groups
5	To change the appearance of my project	To plan the structure of a branching database

	• 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 independently create questions to use in a branching database • I can create questions that will enable objects to be uniquely identified • I can create a physical version of a branching database
6	To create a project from a task description • I can identify and name the objects I will need for a project • I can relate a task description to a design • I can implement my algorithm as code	To independently create an identification tool • I can create a branching database that reflects my plan • I can work with a partner to test my identification tool • I can suggest real-world uses for branching databases
	Summer 1 - Desktop Publishing	Summer 2 - Events and Actions in Programs
1	To recognise how text and images communicate information • I can explain the difference between text and images • I can explain that text and images can communicate messages clearly • I can identify the advantages and disadvantages of using text and images	To explain how a sprite moves in an existing project • I can explain the relationship between an event and an action • I can choose which keys to use for actions and explain my choices • I can identify a way to improve a program
2	To recognise that text and layout can be edited • I can change font style, size, and colour for a given purpose • I can edit text • I can explain that text can be changed to communicate more clearly	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	To choose appropriate page settings • I can explain what 'page orientation' means • I can identify placeholders and say why they are important • I can create a template for a particular purpose	To adapt a program to a new context • I can use a programming extension • I can consider the real world when making design choices • I can choose blocks to set up my program
4	To add content to a desktop publishing document • I can choose the best locations for my content • I can paste text and images to create a magazine cover • I can make changes to content after I've added it	To develop my program by adding features • I can identify additional features (from a given set of blocks) • I can choose suitable keys to turn on additional features • I can build more sequences of commands to make my design work
5	To consider how different layouts can suit different purposes	To identify and fix bugs in a program

	• I can identify different layouts • I can match a layout to a purpose • I can choose a suitable layout for a given purpose	• I can test a program against a given design • I can match a piece of code to an outcome • I can modify a program using a design
6	To consider the benefits of desktop publishing • I can identify the uses of desktop publishing in the real world • I can say why desktop publishing might be helpful • I can compare work made on desktop publishing to work created by hand	To design and create a maze-based challenge • I can make design choices and justify them • I can implement my design • I can evaluate my project