Computing – Teaching Sequence 2023-24

Year 4		
Lesson	Autumn 1 – The Internet	Autumn 2 – Audio Editing
1	To describe how networks physically connect to other networks • I can describe the internet as a network of networks • I can demonstrate how information is shared across the internet • I can discuss why a network needs protecting	To identify that sound can be recorded • I can identify the input and output devices used to record and play sound • I can use a computer to record audio • I can explain that the person who records the sound can say who is allowed to use it
2	To recognise how networked devices make up the internet • I can describe networked devices and how they connect • I can explain that the internet is used to provide many services • I can recognise that the World Wide Web contains websites and web pages	To explain that audio recordings can be edited • I can re-record my voice to improve my recording • I can inspect the soundwave view to know where to trim my recording • I can discuss what sounds can be added to a podcast
3	To outline how websites can be shared via the World Wide Web (WWW) • I can explain the types of media that can be shared on the WWW • I can describe where websites are stored when uploaded to the WWW • I can describe how to access websites on the WWW	To recognise the different parts of creating a podcast project • I can explain how sounds can be combined to make a podcast more engaging • I can save my project so the different parts remain editable • I can plan appropriate content for a podcast
4	To describe how content can be added and accessed on the World Wide Web (WWW) • I can explain what media can be found on websites • I can recognise that I can add content to the WWW • I can explain that internet services can be used to create content online	To apply audio editing skills independently • I can record content following my plan • I can review the quality of my recordings • I can improve my voice recordings
5	To recognise how the content of the WWW is created by people • I can explain that websites and their content are created by	To combine audio to enhance my podcast project • I can open my project to continue working on it

	people • I can suggest who owns the content on websites • I can explain that there are rules to protect content	• I can arrange multiple sounds to create the effect I want • I can explain the difference between saving a project and exporting an audio file
6	To evaluate the consequences of unreliable content • I can explain that not everything on the World Wide Web is true • I can explain why some information I find online may not be honest, accurate, or legal • I can explain why I need to think carefully before I share or reshare content	To evaluate editing choices made • I can explain that digital recordings need to be exported to share them • I can discuss the features of a digital recording I like • I can suggest improvements to a digital recording
	Spring 1 – Repetition in Shapes	Spring 2 – Data Logging
1	To identify that accuracy in programming is important • I can program a computer by typing commands • I can explain the effect of changing a value of a command • I can create a code snippet for a given purpose	To explain that data gathered over time can be used to answer questions • I can choose a data set to answer a given question • I can suggest questions that can be answered using a given data set • I can identify data that can be gathered over time
2	To create a program in a text-based language • I can use a template to draw what I want my program to do • I can write an algorithm to produce a given outcome • I can test my algorithm in a text-based language	To use a digital device to collect data automatically • I can explain what data can be collected using sensors • I can use data from a sensor to answer a given question • I can identify that data from sensors can be recorded
3	To explain what 'repeat' means • I can identify repetition in everyday tasks • I can identify patterns in a sequence • I can use a count-controlled loop to produce a given outcome	To explain that a data logger collects 'data points' from sensors over time • I can identify a suitable place to collect data • I can identify the intervals used to collect data • I can talk about the data that I have captured
4	To modify a count-controlled loop to produce a given outcome • I can identify the effect of changing the number of times a task is repeated • I can predict the outcome of a program containing a count-controlled loop	To recognise how a computer can help us analyse data • I can view data at different levels of detail • I can sort data to find information • I can explain that there are different ways to view data

	• I can choose which values to change in a loop	
5	To decompose a task into small steps • I can identify 'chunks' of actions in the real world • I can use a procedure in a program • I can explain that a computer can repeatedly call a procedure	To identify the data needed to answer questions • I can propose a question that can be answered using logged data • I can plan how to collect data using a data logger • I can use a data logger to collect data
6	To create a program that uses count-controlled loops to produce a given outcome • I can design a program that includes count-controlled loops • I can make use of my design to write a program • I can develop my program by debugging it	To use data from sensors to answer questions • I can interpret data that has been collected using a data logger • I can draw conclusions from the data that I have collected • I can explain the benefits of using a data logger
	Summer 1 – Photo Editing	Summer 2 Repetition in Games
1	To explain that the composition of digital images can be changed • I can improve an image by rotating it • I can explain why I might crop an image • I can use photo editing software to crop an image	To develop the use of count-controlled loops in a different programming environment • I can list an everyday task as a set of instructions including repetition • I can predict the outcome of a snippet of code • I can modify a snippet of code to create a given outcome
2	To explain that colours can be changed in digital images • I can explain that different colour effects make you think and feel different things • I can experiment with different colour effects • I can explain why I chose certain colour effects	To explain that in programming there are infinite loops and count-controlled loops • I can modify loops to produce a given outcome • I can choose when to use a count-controlled and an infinite loop • I can recognise that some programming languages enable more than one process to be run at once
3	To explain how cloning can be used in photo editing • I can add to the composition of an image by cloning • I can identify how a photo edit can be improved • I can remove parts of an image using cloning	To develop a design that includes two or more loops which run at the same time • I can choose which action will be repeated for each object • I can explain what the outcome of the repeated action should be

		• I can evaluate the effectiveness of the repeated sequences used in my program
4	To explain that images can be combined • I can experiment with tools to select and copy part of an image • I can use a range of tools to copy between images I can explain why photos might be edited	To modify an infinite loop in a given program • I can identify which parts of a loop can be changed • I can explain the effect of my changes • I can re-use existing code snippets on new sprites
5	To combine images for a purpose • I can describe the image I want to create • I can choose suitable images for my project • I can create a project that is a combination of other images	To design a project that includes repetition • I can evaluate the use of repetition in a project • I can select key parts of a given project to use in my own design • I can develop my own design explaining what my project will do
6	To evaluate how changes can improve an image • I can review images against a given criteria • I can use feedback to guide making changes • I can combine text and my image to complete the project	To create a project that includes repetition • I can refine the algorithm in my design • I can build a program that follows my design • I can evaluate the steps I followed when building my project