Computing – Teaching Sequence 2023-24

Year 2		
Lesson	Autumn 1 – IT Around Us	Autumn 2 - Digital Photography
1	To recognise the uses and features of information technology • I can identify examples of computers • I can describe some uses of computers • I can identify that a computer is a part of IT	To use a digital device to take a photograph • I can recognise what devices can be used to take photographs • I can talk about how to take a photograph • I can explain what I did to capture a digital photo
2	To identify the uses of information technology in the school • I can identify examples of IT • I can sort school IT by what it's used for • I can identify that some IT can be used in more than one way	To make choices when taking a photograph • I can explain the process of taking a good photograph • I can take photos in both landscape and portrait format • I can explain why a photo looks better in portrait or landscape format
3	To identify information technology beyond school • I can find examples of information technology • I can sort IT by where it is found • I can talk about uses of information technology	To describe what makes a good photograph • I can identify what is wrong with a photograph • I can discuss how to take a good photograph • I can improve a photograph by retaking it
4	To explain how information technology helps us • I can recognise common types of technology • I can demonstrate how IT devices work together • I can say why we use IT	To decide how photographs can be improved • I can explore the effect that light has on a photo • I can experiment with different light sources • I can explain why a picture may be unclear
5	To explain how to use information technology safely • I can list different uses of information technology • I can talk about different rules for using IT • I can say how rules can help keep me safe	To use tools to change an image • I can recognise that images can be changed • I can use a tool to achieve a desired effect • I can explain my choices
6	To recognise that choices are made when using information technology • I can identify the choices that I make when using IT • I can use IT for different types of activities • I can explain the need to use IT in different ways	To recognise that photos can be changed • I can apply a range of photography skills to capture a photo • I can recognise which photos have been changed • I can identify which photos are real and which have been changed

	Spring 1 - Robot Algorithms	Spring 2 – Pictograms
1	To describe a series of instructions as a sequence • I can follow instructions given by someone else • I can choose a series of words that can be acted out as a sequence • I can give clear instructions	To recognise that we can count and compare objects using tally charts • I can record data in a tally chart • I can represent a tally count as a total • I can compare totals in a tally chart
2	To explain what happens when we change the order of instructions • I can use the same instructions to create different algorithms • I can use an algorithm to program a sequence on a floor robot • I can show the difference in outcomes between two sequences that consist of the same instructions	To recognise that objects can be represented as pictures • I can enter data onto a computer • I can use a computer to view data in a different format • I can use pictograms to answer simple questions about objects
3	To use logical reasoning to predict the outcome of a program • I can follow a sequence • I can predict the outcome of a sequence • I can compare my prediction to the program outcome •	To create a pictogram • I can organise data in a tally chart • I can use a tally chart to create a pictogram • I can explain what the pictogram shows
4	To explain that programming projects can have code and artwork • I can explain the choices that I made for my mat design • I can identify different routes around my mat • I can test my mat to make sure that it is usable	To select objects by attribute and make comparisons • I can tally objects using a common attribute • I can create a pictogram to arrange objects by an attribute • I can answer more than/less than, most/least questions about an attribute
5	To design an algorithm • I can explain what my algorithm should achieve • I can create an algorithm to meet my goal • I can use my algorithm to create a program	To recognise that people can be described by attributes • I can choose a suitable attribute to compare people • I can collect the data I need • I can create a pictogram and draw conclusions from it
6	To create and debug a program that I have written • I can test and debug each part of the program • I can plan algorithms for different parts of a task • I can put together the different parts of my program	To explain that we can present information using a computer • I can use a computer program to present information is different ways • I can share what I have found out using a computer • I can give simple examples of why information should not be shared

	Summer 1 – Making Music	Summer 2 Programming Quizzes
1	To say how music can make us feel • I can identify simple differences in pieces of music • I can describe music using adjectives • I can say what I do and don't like about a piece of music	To explain that a sequence of commands has a start • I can identify the start of a sequence • I can identify that a program needs to be started • I can show how to run my program
2	To identify that there are patterns in music • I can create a rhythm pattern • I can play an instrument following a rhythm pattern • I can explain that music is created and played by humans	To explain that a sequence of commands has an outcome • I can predict the outcome of a sequence of commands • I can match two sequences with the same outcome • I can change the outcome of a sequence of commands
3	To experiment with sound using a computer • I can connect images with sounds • I can use a computer to experiment with pitch • I can relate an idea to a piece of music	To create a program using a given design • I can work out the actions of a sprite in an algorithm • I can decide which blocks to use to meet the design • I can build the sequences of blocks I need
4	To use a computer to create a musical pattern • I can identify that music is a sequence of notes • I can explain how my music can be played in different ways • I can refine my musical pattern on a computer	To change a given design • I can choose backgrounds for the design • I can choose characters for the design • I can create a program based on the new design
5	To create music for a purpose • I can create a rhythm which represents an animal I've chosen • I can create my animal's rhythm on a computer • I can add a sequence of notes to my rhythm	To create a program using my own design • I can choose the images for my own design • I can create an algorithm • I can build sequences of blocks to match my design
6	To review and refine our computer work • I can review my work • I can explain how I changed my work • I can listen to music and describe how it makes me feel	To decide how my project can be improved • I can compare my project to my design • I can improve my project by adding features • I can debug my program