

Computing Medium-term Plan

Year 1	Autumn1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
	<i>Online Safety (Project Evolve)</i>	<i>Computing Systems and Networks- Technology around us</i>	<i>Creating Media- Digital Painting</i>	<i>Data and Information- Grouping Data</i>	<i>Programming- Moving a robot</i>	<i>Programming- Introduction to animation</i>
Lesson 1	Bespoke sessions based on pupils' baseline assessment	-To identify technology	-To describe what different freehand tools do	-To label objects	-To explain what a given command will do	-To choose a command for a given purpose
Lesson 2		-To identify a computer and its main parts	-To use the shape tool and the line tools	-To identify that objects can be counted	-To act out a given word	-To show that a series of commands can be joined together
Lesson 3		-To use a mouse in different ways	-To make careful choices when painting a digital picture	-To describe objects in different ways	-To combine forwards and backwards commands to make a sequence	-To identify the effect of changing a value
Lesson 4		-To use a keyboard to type on a computer	-To explain why I chose the tools I used	-To count objects with the same properties	-To combine four direction commands to make sequences	-To explain that each sprite has its own instructions
Lesson 5		-To use the keyboard to edit text	-To use a computer on my own to paint a picture	-To compare groups of objects	-To plan a simple program	-To design the parts of a project
Lesson 6		-To create rules for using technology responsibly	-To compare painting a picture on a computer and on paper	-To answer questions about groups of objects	-To find more than one solution to a problem	-To use my algorithm to create a program

Year 2	Autumn1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
	<i>Online Safety (Project Evolve)</i>	<i>Computing systems and networks – IT around us</i>	<i>Creating media – Digital photography</i>	<i>Data and Information- Pictograms</i>	<i>Programming- Robot Algorithms</i>	<i>Programming-An introduction to quizzes</i>
Lesson 1	Bespoke sessions based on pupils' baseline assessment	-To recognise the uses and features of information technology	-To use a digital device to take a photograph	-To recognise that we can count and compare objects using tally charts	-To describe a series of instructions as a sequence	-To explain that a sequence of commands has a start
Lesson 2		-To identify the uses of information technology in the school	-To make choices when taking a photograph	-To recognise that objects can be represented as pictures	-To explain what happens when we change the order of instructions	-To explain that a sequence of commands has an outcome
Lesson 3		-To identify information technology beyond school	-To describe what makes a good photograph	-To create a pictogram	-To use logical reasoning to predict the outcome of a program	-To create a program using a given design
Lesson 4		-To explain how information technology helps us	-To decide how photographs can be improved	-To select objects by attribute and make comparisons	-To explain that programming projects can have code and artwork	-To change a given design
Lesson 5		-To explain how to use information technology safely	-To use tools to change an image	-To recognise that people can be described by attributes	-To design an algorithm	-To create a program using my own design
Lesson 6		-To recognise that choices are made when using information technology	-To recognise that photos can be changed	-To explain that we can present information using a computer	-To create and debug a program that I have written	-To decide how my project can be improved

Year 3	Autumn1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
	<i>Online Safety (Project Evolve)</i>	<i>Computing systems and networks – Connecting Computers</i>	<i>Creating media – Animation</i>	<i>Data and Information- Branching Databases</i>	<i>Programming- Sequencing Sounds</i>	<i>Programming-Events and Actions</i>
Lesson 1	Bespoke sessions based on pupils' baseline assessment	-To explain how digital devices function	-To explain that animation is a sequence of drawings or photographs	-To create questions with yes/no answers	-To explore a new programming environment	-To explain how a sprite moves in an existing project
Lesson 2		-To identify input and output devices	-To relate animated movement with a sequence of images	-To identify the attributes needed to collect data about an object	-To identify that commands have an outcome	-To create a program to move a sprite in four directions
Lesson 3		-To recognise how digital devices can change the way we work	-To plan an animation	-To create a branching database	-To explain that a program has a start	-To adapt a program to a new context
Lesson 4		-To explain how a computer network can be used to share information	-To identify the need to work consistently and carefully	-To explain why it is helpful for a database to be well structured	-To recognise that a sequence of commands can have an order	-To develop my program by adding features
Lesson 5		-To explore how digital devices can be connected	-To review and improve an animation	-To plan the structure of a branching database	-To change the appearance of my project	-To identify and fix bugs in a program
Lesson 6		-To recognise the physical components of a network	-To evaluate the impact of adding other media to an animation	-To independently create an identification tool	-To create a project from a task description	-To design and create a maze-based challenge

Year 4	Autumn1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
	<i>Online Safety (Project Evolve)</i>	<i>Computing systems and networks – The Internet</i>	<i>Creating media – Audio Editing</i>	<i>Data and Information-Data Logging</i>	<i>Programming- Repetition in Shapes</i>	<i>Programming- Repetition in Games</i>
Lesson 1	Bespoke sessions based on pupils' baseline assessment	-To describe how networks physically connect to other networks	-To identify that sound can be recorded	-To explain that data gathered over time can be used to answer questions	-To identify that accuracy in programming is important	-To develop the use of count-controlled loops in a different programming environment
Lesson 2		-To recognise how networked devices make up the internet	-To explain that audio recordings can be edited	-To use a digital device to collect data automatically	-To create a program in a text-based language	-To explain that in programming there are infinite loops and count controlled loops
Lesson 3		-To outline how websites can be shared via the World Wide Web (WWW)	-To recognise the different parts of creating a podcast project	-To explain that a data logger collects 'data points' from sensors over time	-To explain what 'repeat' means	-To develop a design that includes two or more loops which run at the same time
Lesson 4		-To describe how content can be added and accessed on the World Wide Web (WWW)	-To apply audio editing skills independently	-To recognise how a computer can help us analyse data	-To modify a count-controlled loop to produce a given outcome	-To modify an infinite loop in a given program
Lesson 5		-To recognise how the content of the WWW is created by people	-To combine audio to enhance my podcast project	-To identify the data needed to answer questions	-To decompose a task into small steps	-To design a project that includes repetition
Lesson 6		-To evaluate the consequences of unreliable content	-To evaluate the effective use of audio	-To use data from sensors to answer questions	-To create a program that uses count-controlled loops to produce a given outcome	-To create a project that includes repetition

Year 5	Autumn1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
	<i>Online Safety (Project Evolve)</i>	<i>Computing systems and networks – Sharing Information</i>	<i>Creating media – Video Production</i>	<i>Data and Information-Flat- file databases</i>	<i>Programming- Selection in physical computing</i>	<i>Programming- Selection in quizzes</i>
Lesson 1	Bespoke sessions based on pupils' baseline assessment	-To explain that computers can be connected together to form systems	-To explain what makes a video effective	-To use a form to record information	-To control a simple circuit connected to a computer	-To explain how selection is used in computer programs
Lesson 2		-To recognise the role of computer systems in our lives	-To identify digital devices that can record video	-To compare paper and computer-based databases	-To write a program that includes count-controlled loops	-To relate that a conditional statement connects a condition to an outcome
Lesson 3		-To experiment with search engines	-To capture video using a range of techniques	-To outline how you can answer questions by grouping and then sorting data	-To explain that a loop can stop when a condition is met	-To explain how selection directs the flow of a program
Lesson 4		-To describe how search engines select results	-To create a storyboard	-To explain that tools can be used to select specific data	-To explain that a loop can be used to repeatedly check whether a condition has been met	-To design a program which uses selection
Lesson 5		-To explain how search results are ranked	-To identify that video can be improved through reshooting and editing	-To explain that computer programs can be used to compare data visually	-To design a physical project that includes selection	-To create a program which uses selection
Lesson 6		-To recognise why the order of results is important, and to whom	-To consider the impact of the choices made when making and sharing a video	-To use a real-world database to answer questions	-To create a program that controls a physical computing project	-To evaluate my program

Year 6	Autumn1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
	<i>Online Safety (Project Evolve)</i>	<i>Computing systems and networks – Communication and collaboration</i>	<i>Creating media – Webpage creation</i>	<i>Data and Information- Spreadsheets</i>	<i>Programming- Variables in games</i>	<i>Programming- Selection in quizzes</i>
Lesson 1	Bespoke sessions based on pupils' baseline assessment	-To explain the importance of internet addresses	-To review an existing website and consider its structure	-To create a data set in a spreadsheet	-To define a 'variable' as something that is changeable	-To create a program to run on a controllable device
Lesson 2		-To recognise how data is transferred across the internet	-To plan the features of a web page	-To build a data set in a spreadsheet	-To explain why a variable is used in a program	-To explain that selection can control the flow of a program
Lesson 3		-To explain how sharing information online can help people to work together	-To consider the ownership and use of images (copyright)	-To explain that formulas can be used to produce calculated data	-To choose how to improve a game by using variables	-To update a variable with a user input
Lesson 4		-To evaluate different ways of working together online	-To recognise the need to preview pages	-To apply formulas to data	-To design a project that builds on a given example	-To use a conditional statement to compare a variable to a value
Lesson 5		-To recognise how we communicate using technology	-To outline the need for a navigation path	-To create a spreadsheet to plan an event	-To use my design to create a project	-To design a project that uses inputs and outputs on a controllable device
Lesson 6		-To evaluate different methods of online communication	-To recognise the implications of linking to content owned by other people	-To choose suitable ways to present data	-To evaluate my project	-To develop a program to use inputs and outputs on a controllable device