

	Computing Systems and Networks	Creating Media		Data and Information	Programming	
Year 1	<u>Technology around us</u> • I can identify technology • I can identify a computer and its main parts • I can use a mouse in different ways • I can use a keyboard to type on a computer • I can use a keyboard to edit text • I can create rules for using technology responsibly.	<u>Digital Painting</u> • I can describe what different freehand tools do • I can use the shape tool and the line tools • I can make careful choices when painting a digital picture • I can explain why I chose the tools I used • I can use a computer on my own to paint a picture • I can compare painting a picture on a computer and on paper.	<u>Digital Writing</u> • I can use a computer to write • I can add and remove text on a computer • I can identify that the look of text can be changed on a computer • I can make careful choices when changing a text • I can explain why I used the tools that I chose • I can compare typing on a computer to writing on paper.	<u>Grouping Data</u> • I can label objects • I can identify objects can be counted • I can describe objects in different ways • I can count objects with the same properties • I can compare groups of objects • I can answer questions about groups of objects.	<u>Moving a Robot</u> • I can explain what a given command will do • I can act out a given word • I can combine forwards and backwards commands to make a sequence • I can combine four direction commands to make sequences • I can plan a simple program • I can find more than one solution to a problem	<u>Introduction to animation</u> • I can choose a command for a given purpose • I can show that a series of commands can be joined together • I can identify the effects of changing a value • I can explain that each sprite has its own instructions • I can design parts of a project • I can use my algorithm to create a program
Year 2	<u>IT around us</u> • I can recognise the uses and features of information technology • I can identify the uses of IT in the school • I can identify IT beyond school • I can explain how IT helps us • I can explain how to use IT safely • I can recognise that choices are made when using IT	<u>Digital Photography</u> • I can use a digital device to take a photograph • I can make choices when taking a photograph • I can describe what makes a good photograph • I can decide how photographs can be improved • I can use tools to change an image • I can recognise that photos can be changed.	<u>Making Music</u> • I can say how music can make us feel • I can identify that there are patterns in music • I can show how music is made from a series of notes • I can create music for a purpose • I can review and refine my computer work	<u>Pictograms</u> • I can recognise that we can count and compare objects using tally charts • I can recognise that objects can be represented as pictures • I can create a pictogram • I can select objects by attribute and make comparisons • I can recognise that people can be described by attributes • I can explain that we can present information using a computer.	<u>Robot Algorithms</u> • I can describe a series of instructions as a sequence • I can explain what happens when we change the order of instructions • I can use logical reasoning to predict the outcome of a program (series of commands) • I can explain that programming projects can have code and artwork • I can design an algorithm • I can create and debug a program that I have written.	<u>An introduction to quizzes</u> • I can explain that a sequence of commands has a start • I can explain that a sequence of commands has an outcome • I can create a program using a given design • I can create a program using my own design • I can decide how my project can be improved.
Year 3	<u>Connecting Computers</u> • I can explain how digital devices function • I can identify input and output devices • I can recognise how digital devices can change the way we work • I can explain how a computer network can be used to share information • I can explore how digital devices can be connected I can recognise the physical components of a network.	<u>Animation</u> • I can explain that animation is a sequence of drawings or photographs • I can relate animated movement with a sequence of images • I can plan an animation • I can identify the need to work consistently and carefully • I can review and improve an animation • I can evaluate the impact of adding other media to an animation	<u>Desktop Publishing</u> • I can recognise how text and images convey information • I can recognise that text and layout can be edited • I can choose appropriate page settings • I can add content to a desktop publishing publication • I can consider how different layouts can suit different purposes • I can consider the benefits of desktop publishing	<u>Branching Databases</u> • I can create questions with yes/no answers • I can identify the object attributes needed to collect relevant data • I can create a branching database • I can explain why it is helpful for a database to be well structured • I can identify objects using a branching database • I can compare the information shown in a pictogram with a branching database.	<u>Sequence in music</u> • I can explore a new programming environment • I can identify that commands have an outcome • I can explain that a program has a start • I can recognise that a sequence of commands can have an order • I can change the appearance of my project • I can create a project from a task description	<u>Events and Actions</u> • I can explain how a sprite moves in an existing project • I can create a program to move a sprite in four directions • I can adapt a program to a new context • I can develop my program by adding features • I can identify and fix bugs in a program • I can design and create a maze-based challenge.

Year 4	<u>The Internet</u> • I can describe how networks physically connect to other networks • I can recognise how networked devices make up the internet • I can outline how websites can be shared via the World Wide Web (WWW) • I can describe how content can be added and accessed on the WWW • I can recognise how the content of the WWW is created by people • I can evaluate the consequences of unreliable content	<u>Audio</u> • I can identify that sound can be digitally recorded • I can use a digital device to record sound • I can explain that a digital recording is stored as a file • I can explain that audio can be changed through editing • I can show that different types of audio can be combined and played together • I can evaluate the editing choices I have made.	<u>Photo Editing</u> • I can explain that digital images can be changed • I can change the composition of an image • I can describe how images can be changed for different uses • I can make good choices when selecting different tools • I can recognise that not all images are real • I can evaluate how changes can improve an image.	<u>Data Logging</u> • I can explain that data gathered over time can be used to answer questions • I can use a digital device to collect data automatically • I can explain that a data logger collects 'data points' from sensors over time • I can use data collected over a long duration to find information. • I can identify the data needed to answer questions • I can use collected data to answer questions.	<u>Repetition in Shapes</u> • I can identify that accuracy in programming is important • I can create a program in text-based language • I can explain what 'repeat' means • I can modify a count-controlled loop to produce a given outcome. • I can decompose a task into small steps • I can create a program that used count-controlled loops to produce a given outcome.	<u>Repetition in Games</u> • I can develop the use of count-controlled loops in a different programming environment • I can explain that in programming there are infinite loops and count controlled loops • I can develop a design that includes two or more loops which run at the same time • I can modify an infinite loop in a given program • I can design a project that includes repetition • I can create a project that includes repetition.
Year 5	<u>Sharing Information</u> • I can explain that computers can be connected together to form systems • I can recognise the role of computer systems in our lives • I can recognise how information is transferred over the internet • I can explain how sharing information online lets people in different places work together • I can contribute to a shared project online • I can evaluate different ways of working together online.	<u>Video Editing</u> • I can explain what makes a video effective • I can identify digital devices that can record video • I can capture video using a range of techniques • I can create a storyboard • I can identify that video can be improved through reshooting and editing. • I can consider the impact of the choices made when making and sharing a video.	<u>Vector Drawing</u> • I can identify that drawing tools can be used to produce different outcomes • I can create a vector drawing by combining shapes • I can use tools to achieve a desired effect • I can recognise that vector drawings consist of layers • I can group objects to make them easier to work with • I can evaluate my vector drawing.	<u>Flat-File Databases</u> • I can use a form to record information • I can compare paper and computer based databases • I can outline how grouping and then sorting data allows us to answer questions • I can explain that tools can be used to select specific data • I can explain that computer programs can be used to compare data visually • I can apply my knowledge of a database to ask and answer real world questions.	<u>Selection in physical computing</u> • I can control a simple circuit connected to a computer • I can write a program that includes count-controlled loops • I can explain that a loop can stop when a condition is met • I can explain that a loop can be used to repeatedly check whether a condition has been met • I can design a physical project that includes selection • I can create a program that controls a physical computing project.	<u>Selection in Quizzes</u> • I can explain how selection is used in computer programs • I can relate that a conditional statement connects a condition to an outcome • I can explain how selection directs the flow of a program • I can design a program which uses selection • I can create a program which uses selection • I can evaluate my program.
Year 6	<u>Communication</u> • I can identify how to use a search engine • I can describe how search engines select results • I can explain how search results are ranked • I can recognise why the order of results is important, and to whom • I can recognise how we communicate using technology • I can evaluate different methods of online communication.	<u>Web Page Creation</u> • I can review an existing website and consider its structure • I can plan the features of a web page • I can consider the ownership and use of images (copyright) • I can recognise the need to preview pages • I can outline the need for a navigation path • I can recognise the implications of linking content owned by other people.	<u>3D modelling</u> • I can use a computer to create and manipulate 3D digital objects • I can compare working digitally with 2D and 3D graphics • I can construct a digital 3D model of a physical object • I can identify that physical objects can be broken down into a collection of 3D shapes • I can design a digital model by combining 3D objects • I can develop and improve a digital 3D model	<u>Spreadsheets</u> • I can identify questions which can be answered using data • I can explain that objects can be described using data • I can explain that formulas can be used to produce calculated data • I can apply formulas to data, including duplicating. • To create a spreadsheet to plan an event. • To choose suitable ways to present data.	<u>Variables in Games</u> • I can define 'variable' as something that is changeable • I can explain why a variable is used in a program • I can choose how to improve a game by using variables • I can design a project that builds on a given example • I can use my design to create a project • I can evaluate my project.	<u>Sensing</u> • I can create a program to run on a controllable device • I can explain that selection can control the flow of a program • I can update a variable with a user input • I can use a conditional statement to compare a variable to a value • I can design a project that uses inputs and outputs on a controllable device • I can develop a program to use inputs and outputs on a controllable device.

