MANLEY PARK PRIMARY SCHOOL
GROWING TOGETHER

ASSESSING

YEAR 1

Check Points **Aut 1** Computing systems and networks – Technology around us	**Check Points** **Aut 2** Creating media – Digital painting	**Check Points** **Spr 1** Programming A – Moving a robot	**Check Points** **Spr 2** Data and information – Grouping data	**Check Points** **Sum 1** Creating media – Digital writing	**Check Points** **Sum 2** Programming B – Introduction to animation
Knowledge Know why rules are needed when using technology **Skills** Use a keyboard and mouse/pointing device in different ways Use technology safely	**Knowledge** Know the function of different freehand tools in a programme such as 'Paint' **Skills** Use the shape tool and the line tools Make careful choices when painting a digital picture Explain why I chose the tools I used Use a computer on my own to paint a picture Compare painting a picture on a computer and on paper	**Knowledge** Know and respond to verbal and written instruction (command) vocabulary - forward, backward, turn, right, left Know that algorithms are a set of clear, precise, and ordered instructions. Know that a computer program is the implementation of an algorithm on a digital device. Know that reading 'code' can be used to predict what a program will do. **Skills** Explain what a given command will do Build a sequence of commands in steps - Combine 'forwards' and 'backwards' commands to make a sequence - Combine four	**Knowledge** Know that objects can be grouped by similarities (attribute) Know that information can be presented in different ways **Skills** Describe a group of objects (based on commonality)	**Knowledge** Know that text can be edited **Skills** Change the appearance of text on a computer Consider the impact of choices made	**Knowledge** Know the 'four levels that can help describe a project, known as levels of abstraction. Use the four levels to understand how to create a program and how it works: • Task – what is needed • Design – what it should do • Code – how it is done • Running the code – what it does **Skills** Choose a command for a given purpose Show that a series of commands can be joined together Identify the effect of changing a value (numbers - how this changes what the

		direction commands to make sequences Plan a simple program - floor robots Run a program on a device - floor robots Find more than one solution to a problem			sprite does) Explain that each sprite has its own instructions Design the parts of a project Use an algorithm to create a program (Scratch Jnr)
END POINTS					

Knowledge	Skills
- To identify technology and the parts of a computer - To explain why I used the tools I chose when painting a picture - To compare writing on a computer with writing on paper - To identify that objects can be labelled, grouped, counted, and named in different ways. - To explain what a given programming command will do	- To use the keyboard to edit text - To use a computer on own to paint a picture - To use a computer to write - To count objects with the same properties - To use an algorithm to create a program

YEAR 2

Check Points Aut 1 Computing systems and networks – IT around us	**Check Points Aut 2** Creating media – Digital photography	**Check Points Spr 1** Programming A – Robot algorithms	**Check Points Spr 2** Data and information – Pictograms	**Check Points Sum 1** Creating media – Making music	**Check Points Sum 2** Programming B – An introduction to quizzes
Knowledge Know information technology beyond school	**Knowledge** Describe what makes a good	**Knowledge** Describe a series of	**Knowledge** Know simple examples of why some information should not be shared	**Knowledge** Say how music can make us	**Knowledge** Explain that a sequence of

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Know how information technology benefits us **Skills** Use information technology safely	photograph Recognise that photos can be changed **Skills** Use a digital device to take a photograph Decide how photographs can be improved Use tools to change an image	instructions as a sequence Explain what happens when we change the order of instructions Explain that programming projects can have code and artwork **Skills** Use logical reasoning to predict the outcome of a program Design an algorithm Create and debug a program	**Skills** Construct (complete) a given comparison question Use a computer to answer comparison questions (graphs, tables)	feel Identify that there are patterns in music **Skills** Use a computer to create, evaluate and improve a musical composition • Experiment with sound using a computer • Use a computer to create a musical pattern • Create music for a purpose • Review and refine computer work Compare playing music on instruments with making music on a computer	commands has a start Explain that a sequence of commands has an outcome **Skills** Use logical reasoning to predict the outcome of a program Create a program using a given design Test a prediction by running the sequence Create, run, and debug a program Decide how my project can be improved
END POINTS					

Knowledge	Skills
- To recognise information technology and explain how it benefits us - To recognise that photos can be changed - To recognise that people/objects can be described by attributes - To explain what happens when we change the order of instructions	- To show how to use information technology safely - To use a digital device to take a photograph - To use tools to change an image - To create music for a purpose

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- To explain that a sequence of commands has a start and outcome	- To select objects by attribute and make comparisons - To use logical reasoning to predict the outcome of a program (series of commands) - To create a program using a given design

YEAR 3

Check Points **Aut 1** Computing systems and networks – Connecting computers	**Check Points** **Aut 2** Creating media – Animation	**Check Points** **Spr 1** Programming A – Sequence in music	**Check Points** **Spr 2** Unit: Data and information – Branching databases	**Check Points** **Sum 1** Creating media – Desktop publishing	**Check Points** **Sum 2** Programming B – Events and actions
Knowledge Identify input and output devices Recognise the physical components of a network Know network devices around us Know that information is passed through multiple connections Know the benefits of computer networks **Skills** Explain how digital devices function Recognise how digital devices can change the way that we work Explain how a computer network can be used to share	**Knowledge** Know and explain that animation is a sequence of drawings or photographs **Skills** Relate animated movement with a sequence of images Plan an animation Identify the need to work consistently and carefully Review and improve an animation Evaluate the impact of adding other media to an animation	**Knowledge** Explain that a program has a start Identify that commands have an outcome Recognise that a sequence of commands can have an order **Skills** Explore a new programming environment (Scratch) Order commands in a program Sequence commands to produce a given outcome Change the appearance of a project Create a project from a task description	**Knowledge** Identify the attributes needed to collect data about an object Explain why it is helpful for a database to be well structured **Skills** Retrieve information from different levels of a branching database Relate two levels of a branching database using AND Compare the information shown in a pictogram with a branching database Create questions with yes/no answers Plan the structure of a branching database Create a branching database	**Knowledge** Recognise how text and images convey information Recognise that text and layout can be edited **Skills** Choose appropriate page settings Add content to a desktop publishing publication Consider how different layouts can suit different purposes Consider the benefits of desktop publishing	**Knowledge** Know that the order of commands can affect a program's output Explain how a sprite moves in an existing project **Skills** Create a sequence of commands to produce a given outcome Create a program to move a sprite in four directions Adapt a program to a new context Develop own program by adding features Identify and fix bugs in a program Design and create a maze-based challenge

information Explore how digital devices can be connected			Independently create an identification tool		
END POINTS					

Knowledge	Skills
- To identify input and output devices - To explain how a computer network can be used to share information - To relate animated movement with a sequence of images - To recognise how text and images convey information - To explain why it is helpful for a database to be well structured - To explain that a program has a start and an order	- To explore how digital devices can be connected - To add content to a desktop publishing publication - To plan, review and improve an animation - To create a branching database - To identify and fix bugs in a program - To create a programming project from a task description

YEAR 4

Check Points **Aut 1** Computing systems and networks – The Internet	**Check Points** **Aut 2** Creating media – Audio editing	**Check Points** **Spr 1** Programming A – Repetition in shapes	**Check Points** **Spr 2** Data and information – Data logging	**Check Points** **Sum 1** Creating media – Photo editing	**Check Points** **Sum 2** Programming B – Repetition in games
Knowledge Know the current limitations of World Wide Web media Know the benefits of the World Wide Web **Skills** Evaluate the reliability of content and the consequences of unreliable content	**Knowledge** **Skills** use a device to record audio inspect the soundwave view to know where to trim my recording Plan and record podcast content arrange multiple sounds to layer podcast audio	**Knowledge** Know what indefinite loops and count-controlled loops are **Skills** To use indefinite and count-controlled loops to produce given outcomes	**Knowledge** Know that a data logger collects 'data points' from sensors over time Know data is gathered over time and can be used to answer questions **Skills** use a digital device to collect	**Knowledge** Know that not all images are real **Skills** To use the most appropriate tool for a particular purpose Consider the impact of changes made on the quality of the image	**Knowledge** Know when to use a loop and when not to Know the importance of instruction order in a loop **Skills** Create two or more sequences that run at the same time

			data sort data to find information draw conclusions from the data that I have collected		
END POINTS					

Knowledge	Skills
- To recognise how networked devices make up the internet - To describe how content can be added and accessed on the World Wide Web - To identify that sound can be digitally recorded, stored and edited - To describe how images can be changed for different uses - To explain that data gathered over time can be used to answer questions - To explain that in programming there are infinite loops and count-controlled loops	- To evaluate the consequences of unreliable content - To show that different types of audio can be combined and played together: - To edit images and evaluate how changes make improvements - To create a program in a text-based language - To create a project that uses count-controlled/infinite loops

YEAR 5

Check Points **Aut 1** Computing systems and networks – Sharing information	**Check Points** **Aut 2** Creating media – Video editing	**Check Points** **Spr 1** Programming A – Selection in physical computing	**Check Points** **Spr 2** Data and information – Flat-file databases	**Check Points** **Sum 1** Creating media – Vector drawing	**Check Points** **Sum 2** Programming B – Selection in quizzes
Knowledge Know how search engines make money by selling targeted advertising space Know some of the limitations of search engines **Skills** Evaluate the results of search terms	**Knowledge** Know and explain that video is a visual media format **Skills** capture video using a range of filming techniques select the correct tools to	**Knowledge** Know and explain what an infinite loop does **Skills** create a simple circuit and connect it to a microcontroller program a microcontroller to make an LED	**Knowledge** Know that computer programs can be used to compare data visually **Skills** Select an appropriate graph to visually compare data Choose suitable ways to present information to other people	**Knowledge** Know that vector images can be scaled without impact on quality Know that objects can be modified in groups **Skills** Move objects between the layers of a drawing Create a vector drawing for a given purpose	**Knowledge** Know the importance of instruction order in 'if... then... else...' statements **Skills** Use 'if... then... else...' to switch program flow in one of two ways

	make edits to video	switch on program a microcontroller to respond to an input write an algorithm that describes what my model will do			
END POINTS					

Knowledge	Skills
- To explain how sharing information online lets people in different places work together - To recognise that vector drawings consist of layers and shapes - To identify that video can be improved through reshooting and editing - To outline how grouping and sorting data allows us to answer questions - To explain how selection is used in computer programs	- To contribute to a shared project online - To create a vector drawing by combining shapes - To capture video using a digital device - To apply my knowledge of a database to ask and answer real-world questions - To control a simple circuit connected to a computer - To design and create a program which uses selection

YEAR 6

Check Points **Aut 1** Computing systems and networks – Communication	**Check Points** **Aut 2** Creating media – 3D Modelling	**Check Points** **Spr 1** Creating media – Web page creation	**Check Points** **Spr 2** Programming A – Variables in games	**Check Points** **Sum 1** Data and information – Spreadsheets	**Check Points** **Sum 2** Programming B – Sensing
Knowledge Know how search engines make money by selling targeted advertising space Know some of the limitations of search engines **Skills** Evaluate the results of search terms	**Skills** add 3D shapes to a project duplicate 3D objects construct a 3D model based on a design	**Knowledge** Know the common features of a web page describe what is meant by the term 'fair use' **Skills** add content to own web page create hyperlinks to link to	**Skills** Update a variable with a user input Use the same variable in more than one location in a program	**Knowledge** Know why data should be organised in a spreadsheet Know that a cell's value automatically updates when the value in a linked cell is changed **Skills** Choose suitable ways to present spreadsheet data	**Knowledge** Know that if you read a variable, the value remains **Skills** Use a variable in a conditional statement to control the flow of a program Use the same variable in more than one location in a program

		other people's work			
END POINTS					

Knowledge	Skills
- To explain how search results are ranked - To identify that a physical object can be broken down into a collection of 3D shapes - To recognise the ownership and use of images (copyright) - To explain that formulas can be used to produce calculated data - To explain why a variable is used in a program	- To evaluate different methods of online communication - To design a digital model by combining 3D objects - To plan the features of a web page - To apply formulas to data, including duplicating - To design and create a project that uses a variable - To design and develop a project that uses inputs and outputs on a controllable device