

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 <u>Data and information –</u> 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		Skills Build a sequence of commands in steps Combine commands in a program Run a program on a device	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	
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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

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Aut 1 Computing systems and networks – IT around us	Aut 2 Creating media – Digital photography	Spr 1 Programming A – Robot algorithms	Spr 2 <u>Data and information –</u> <u>Pictograms</u>	Sum 1 Creating media – Making <u>music</u>	Sum 2 Programming B – An introduction to guizzes
Knowledge Know information technology beyond school Know how information technology benefits us Skills Use information technology safely			Knowledge Know simple examples of why some information should not be shared Skills To construct (complete) a given comparison question Use a computer to answer comparison questions (graphs, tables)	Skills Use a computer to create, evaluate and improve a musical composition Compare playing music on instruments with making music on a computer	Skills Use logical reasoning to predict the outcome of a program Test a prediction by running the sequence Create, run, and debug a program
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 explain that a sequence of commands has a start and outcome 	 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 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 		



Aut 1 Computing systems and networks – Connecting computers	Aut 2 Creating media – Animation	Spr 1 Programming A – Sequence in music	Spr 2 <u>Unit: Data and information –</u> <u>Branching databases</u>	Sum 1 Creating media – Desktop publishing	Sum 2 Programming B – Events and actions
Knowledge Know the benefits of computer networks Know network devices around us Know how information is passed through multiple connections		Skills Order commands in a program Sequence commands to produce a given outcome	Skills Retrieve information from different levels of the branching database Relate two levels of a branching database using AND Compare the information shown in a pictogram with a branching database		Knowledge Know that the order of commands can affect a program's output Skills Create a sequence of commands to produce a given outcome
		END E	POINTS		

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

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Aut 1 Computing systems and networks – The Internet	Aut 2 Creating media – Audio editing	Spr 1 Programming A – Repetition in shapes	Spr 2 <u>Data and information – Data</u> <u>logging</u>	Sum 1 Creating media – Photo editing	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 Know what indefinite loops and count-controlled loops are Skills To use indefinite and count-controlled loops to produce given outcomes		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
		END P	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

Check Points Check Points	Check Points	Check Points	Check Points	Check Points
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Aut 1 Computing systems and networks – Sharing information	Aut 2 Creating media – Video editing	Spr 1 Programming A – Selection in physical computing	Spr 2 <u>Data and information –</u> <u>Flat-file databases</u>	Sum 1 <u>Creating media – Vector</u> <u>drawing</u>	Sum 2 Programming B – Selection in guizzes
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 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
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

Check Points Aut 1 Computing systems and networks – Communication	Check Points Aut 2 <u>Creating media – 3D</u> <u>Modelling</u>	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			Skills Update a variable with a user input	Knowledge Know why data should be organised in a spreadsheet	Knowledge Know that if you read a variable, the value remains



Know some of the limitations of search engines Skills Evaluate the results of search terms			Use the same variable in more than one location in a program	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	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
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