

YEAR 1

| Check Points Aut 1 <u>Computing systems and networks – Technology around us</u> | Check Points Aut 2 <u>Creating media – Digital painting</u> | Check Points Spr 1 <u>Programming A – Moving a robot</u> | Check Points Spr 2 <u>Data and information – Grouping data</u> | Check Points Sum 1 <u>Creating media – Digital writing</u> | Check Points Sum 2 <u>Programming B – Introduction to animation</u> |
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| <p>Knowledge Know why rules are needed when using technology</p> <p>Skills Use a keyboard and mouse/pointing device in different ways</p> <p>Use technology safely</p> | | <p>Skills Build a sequence of commands in steps Combine commands in a program Run a program on a device</p> | <p>Knowledge Know that objects can be grouped by similarities (attribute) Know that information can be presented in different ways</p> <p>Skills Describe a group of objects (based on commonality)</p> | <p>Knowledge Know that text can be edited</p> <p>Skills Change the appearance of text on a computer Consider the impact of choices made</p> | |
| END POINTS | | | | | |

| Knowledge | Skills |
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| <ul style="list-style-type: none"> - 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 | <ul style="list-style-type: none"> - 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 | Check Points | Check Points | Check Points | Check Points | Check Points |
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| Aut 1 <u>Computing systems and networks – IT around us</u> | Aut 2 <u>Creating media – Digital photography</u> | Spr 1 <u>Programming A – Robot algorithms</u> | Spr 2 <u>Data and information – Pictograms</u> | Sum 1 <u>Creating media – Making music</u> | Sum 2 <u>Programming B – An introduction to quizzes</u> |
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| <p>Knowledge Know information technology beyond school Know how information technology benefits us</p> <p>Skills Use information technology safely</p> | | | <p>Knowledge Know simple examples of why some information should not be shared</p> <p>Skills To construct (complete) a given comparison question Use a computer to answer comparison questions (graphs, tables)</p> | <p>Skills Use a computer to create, evaluate and improve a musical composition Compare playing music on instruments with making music on a computer</p> | <p>Skills Use logical reasoning to predict the outcome of a program Test a prediction by running the sequence Create, run, and debug a program</p> |
| END POINTS | | | | | |

| Knowledge | Skills |
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| <ul style="list-style-type: none"> - 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 | <ul style="list-style-type: none"> - 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 |

YEAR 3

| Check Points | Check Points | Check Points | Check Points | Check Points | Check Points |
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| Aut 1 <u>Computing systems and networks – Sharing information</u> | Aut 2 <u>Creating media – Video editing</u> | Spr 1 <u>Programming A – Selection in physical computing</u> | Spr 2 <u>Data and information – Flat-file databases</u> | Sum 1 <u>Creating media – Vector drawing</u> | Sum 2 <u>Programming B – Selection in quizzes</u> |
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| <p>Knowledge Know how search engines make money by selling targeted advertising space Know some of the limitations of search engines</p> <p>Skills Evaluate the results of search terms</p> | | | <p>Knowledge Know that computer programs can be used to compare data visually</p> <p>Skills Select an appropriate graph to visually compare data Choose suitable ways to present information to other people</p> | <p>Knowledge Know that vector images can be scaled without impact on quality Know that objects can be modified in groups</p> <p>Skills Move objects between the layers of a drawing Create a vector drawing for a given purpose</p> | <p>Knowledge Know the importance of instruction order in 'if... then... else...' statements</p> <p>Skills Use 'if... then... else...' to switch program flow in one of two ways</p> |
| END POINTS | | | | | |

| Knowledge | Skills |
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| <ul style="list-style-type: none"> - 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 | <ul style="list-style-type: none"> - 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 <u>Computing systems and networks – Communication</u> | Check Points Aut 2 <u>Creating media – 3D Modelling</u> | Check Points Spr 1 <u>Creating media – Web page creation</u> | Check Points Spr 2 <u>Programming A – Variables in games</u> | Check Points Sum 1 <u>Data and information – Spreadsheets</u> | Check Points Sum 2 <u>Programming B – Sensing</u> |
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| <p>Knowledge Know how search engines make money by selling targeted advertising space</p> | | | <p>Skills Update a variable with a user input</p> | <p>Knowledge Know why data should be organised in a spreadsheet</p> | <p>Knowledge Know that if you read a variable, the value remains</p> |

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| <p>Know some of the limitations of search engines</p> <p>Skills</p> <p>Evaluate the results of search terms</p> | | | <p>Use the same variable in more than one location in a program</p> | <p>Know that a cell's value automatically updates when the value in a linked cell is changed</p> <p>Skills</p> <p>Choose suitable ways to present spreadsheet data</p> | <p>Skills</p> <p>Use a variable in a conditional statement to control the flow of a program</p> <p>Use the same variable in more than one location in a program</p> |
| END POINTS | | | | | |

| Knowledge | Skills |
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| <ul style="list-style-type: none"> - 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 | <ul style="list-style-type: none"> - 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 |