Tatsfield Primary School
Computing Curriculum Map

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Reception	Completes a simple program on a computer. Uses ICT hardware to interact with age appropriate computer software. Phonics and literacy online games Taking photos – linked to ourselves and our school Barefoot computing; Busy Bodies	Completes a simple program on a computer. Uses ICT hardware to interact with age appropriate computer software. Phonics and literacy online games Mouse skill – firework pictures in paint. Shapes to create a fire engine Barefoot computing; Awesome Autumn	Internet Safety PSHE Tablet – phonics activities Barefoot computing; boats ahoy	Tablet – phonics activities Tiger research (linked to Tiger who came for tea text) Barefoot computing; Springtime	The Foos Codespark Academy Coding: coderpillar/beebots Barefoot computing; Super Space	Keyboard recognition – writing their name on Word Barefoot computing; Summer fun
Year 1	Teach Computing: Unit 1. Computing systems and networks – Technology around us	Teach Computing: Unit 2 creating media – Digital painting	Teach Computing: Unit 3 Programming A	Teach Computing: Unit 4 Data and information – Grouping data	Teach Computing: Unit 5 Digital writing	Teach Computing: Unit 6 Programming B – Programming animations
Year 2	Mighty Heroes: eSafety commissioner (Australian government) Classroom resources | eSafety Commissioner Internet Safety PSHE	Teach Computing: Unit 2. Creating media – Digital photography	Dinosaur PowerPoints: Researching dinosaurs	Google Earth Teach Computing: Unit 1 Computing systems and networks – IT around us	Teach Computing: Unit 4 Data and information – Pictograms	Teach Computing: Unit 3 Robot algorithms and Unit 6 Programming B – Programming quizzes

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 3	Teach Computing: Unit 1 Computing systems and networks – Connecting computers	Teach Computing: Unit 5 Creating media – Desktop publishing	Email	Teach Computing: Unit 4. Data and information – Data logging (Y4) Micro:Bits Scheme of work	Teach Computing: Unit 2 Creating media Stopframe animation	Teach Computing: Unit 3 Programming A – Sequencing Sounds and Teach Computing: Unit 6 Programming B – Events and actions in programs
Year 4	Teach Computing: Unit 1 – The internet	Teach Computing: Unit 5 – Photo editing	Internet Legends: online safety (from Google)	Teach Computing: Unit 2 – Audio production	Teach Computing: Unit 3 – Programming A – Repetition in Shapes	Teach Computing: Unit 4 (Y3) Data and information – Branching databases
Year 5	Teach Computing: Unit 1 Computing systems and networks – Systems and searching	Teach Computing: Unit 2 Creating media – video production	Teach Computing: Unit 3 Programming A – Selection in physical computing	Teach Computing: Unit 4 Data and information – Flatfile databases	Teach Computing: Unit 5 – Creating media – introduction to vector graphics	Teach Computing: Unit 6 Programming B – Selection in quizzes
Year 6	Teach Computing: Unit 4 Data and information – introduction to Spreadsheets	Teach Computing: Unit 1 Computing systems and networks – Communication and collaboration	Teach Computing: Unit 2 Creating media – Web page creation	Teach Computing: Unit 3 Programming A – variables in games	Teach Computing: Unit 5 Creating media – 3D modelling	Teach Computing: Unit 6 Programming B – Sensing movement

Tatsfield Primary School
Computing Curriculum Progression Map

	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Algorithms	Completes a simple program on electronic devices	To explain what a given command will do To act out a given word To plan a simple program To find more than one solution to a problem To use my algorithm to create a program	To describe a series of instructions as a sequence To explain what happens when we change the order of instructions To use logical reasoning to predict the outcome of a program To explain that programming projects can have code and artwork To design an algorithm To create and debug a program that I have written	To create a project from a task description	To identify that accuracy in programming is important To explain what 'repeat' means To decompose a task into small steps	To explain how selection is used in computer programs To relate that a conditional statement connects a condition to an outcome To explain how selection directs the flow of a program	

Computing Systems	Can use the internet with adult supervision to find and retrieve information of interest to them	To identify technology To identify a computer and its main parts To use a mouse in different ways To use a keyboard to type on a computer To use the keyboard to edit text To create rules for using technology responsibly	To recognise the uses and features of information technology To identify the uses of information technology in the school To identify information technology beyond school To explain how information technology helps us To explain how to use information technology safely To recognise that choices are made when using information technology To use a digital device to take a photograph To make choices when taking a photograph	To explain how digital devices function To identify input and output devices To recognise how digital devices can change the way we work To explain how a computer network can be used to share information To explore how digital devices can be connected To recognise the physical components of a network To use a digital device to collect data automatically To explain that a data logger collects 'data points' from sensors over time To identify the data needed to answer questions To use data from sensors to answer questions	To identify that sound can be recorded To explain that audio recordings can be edited	To explain that computers can be connected together to form systems To recognise the role of computer systems in our lives To identify digital devices that can record video To control a simple circuit connected to a computer To write a program that includes count controlled loops To explain that a loop can stop when a condition is met To design a physical project that includes selection To create a program that controls a physical computing project	To create a program to run on a controllable device To explain that selection can control the flow of a program To update a variable with a user input To use a conditional statement to compare a variable to a value To design a project that uses inputs and outputs on a controllable device To develop a program to use inputs and outputs on a controllable device

Creating Media	Can create content such as a video recording, stories, and/or draw a picture on screen	To describe what different freehand tools do To use the shape tool and the line tools To make careful choices when painting a digital picture To explain why I chose the tools I used To use a computer on my own to paint a picture To compare painting a picture on a computer and on paper To use a computer to write To add and remove text on a computer To identify that the look of text can be changed on a computer To make careful choices when changing text To explain why I used the tools that I chose To compare typing on a computer to writing on paper	To use a digital device to take a photograph To make choices when taking a photograph To describe what makes a good photograph To decide how photographs can be improved To use tools to change an image To recognise that photos can be changed	To explain that animation is a sequence of drawings or photographs To relate animated movement with a sequence of images To plan an animation To identify the need to work consistently and carefully To review and improve an animation To evaluate the impact of adding other media to an animation To create a project from a task description To recognise how text and images convey information To recognise that text and layout can be edited To choose appropriate page settings To add content to a desktop publishing publication To consider how different layouts can suit different purposes To consider the benefits of desktop publishing	To describe how content can be added and accessed on the World Wide Web (WWW) To explain that audio recordings can be edited To recognise the different parts of creating a podcast project To apply audio editing skills independently To combine audio to enhance my podcast project To evaluate the effective use of audio To explain that the composition of digital images can be changed To explain that colours can be changed in digital images To explain how cloning can be used in photo editing To explain that images can be combined To combine images for a purpose To evaluate how changes can improve an image	To explain what makes a video effective To identify digital devices that can record video To capture video using a range of techniques To create a storyboard To identify that video can be improved through reshooting and editing To consider the impact of the choices made when making and sharing a video To identify that drawing tools can be used to produce different outcomes To create a vector drawing by combining shapes To use tools to achieve a desired effect To recognise that vector drawings consist of layers To group objects to make them easier to work with To apply what I have learned about vector drawings	To review an existing website and consider its structure To plan the features of a web page To consider the ownership and use of images (copyright) To recognise the need to preview pages To outline the need for a navigation path To recognise the implications of linking to content owned by other people To choose suitable ways to present data To recognise that you can work in three dimensions on a computer To identify that digital 3D objects can be modified To recognise that objects can be combined in a 3D model To create a 3D model for a given purpose To plan my own 3D model To create my own digital 3D model

Data and Information		To label objects To identify that objects can be counted To describe objects in different ways To count objects with the same properties To compare groups of objects To answer questions about groups of objects	To recognise that we can count and compare objects using tally charts To recognise that objects can be represented as pictures To create a pictogram To select objects by attribute and make comparisons To recognise that people can be described by attributes To explain that we can present information using a computer	To explain that data gathered over time can be used to answer questions To use a digital device to collect data automatically To explain that a data logger collects 'data points' from sensors over time To recognise how a computer can help us analyse data To identify the data needed to answer questions To use data from sensors to answer questions	To create questions with yes/no answers To identify the attributes needed to collect data about an object To create a branching database To explain why it is helpful for a database to be well structured To plan the structure of a branching database To independently create an identification tool To identify that sound can be recorded To recognise the different parts of creating a podcast project	To use a form to record information To compare paper and computer-based databases To outline how you can answer questions by grouping and then sorting data To explain that tools can be used to select specific data To explain that computer programs can be used to compare data visually To use a real-world database to answer questions To identify that drawing tools can be used to produce different outcomes	To create a data set in a spreadsheet To build a data set in a spreadsheet To explain that formulas can be used to produce calculated data To apply formulas to data To create a spreadsheet to plan an event To choose suitable ways to present data

Design and Development		To explain why I chose the tools I used To compare painting a picture on a computer and on paper To plan a simple program To explain why I used the tools that I chose To design the parts of a project To use my algorithm to create a program	To describe what makes a good photograph To decide how photographs can be improved To explain that programming projects can have code and artwork To design an algorithm To create and debug a program that I have written To create a program using a given design To change a given design To create a program using my own design To decide how my project can be improved	To plan an animation To identify the need to work consistently and carefully To review and improve an animation To evaluate the impact of adding other media to an animation To change the appearance of my project To create a project from a task description To consider how different layouts can suit different purposes To consider the benefits of desktop publishing To identify and fix bugs in a program To design and create a maze-based challenge	To explain why it is helpful for a database to be well structured To independently create an identification tool To explain that audio recordings can be edited To recognise the different parts of creating a podcast project To evaluate the effective use of audio To explain how cloning can be used in photo editing To evaluate how changes can improve an image	To recognise why the order of results is important, and to whom To explain what makes a video effective To create a storyboard To consider the impact of the choices made when making and sharing a video To design a physical project that includes selection To create a program that controls a physical computing project To compare paper and computer-based databases To apply what I have learned about vector drawings To design a program which uses selection To create a program which uses selection To evaluate my program	To evaluate different methods of online communication To review an existing website and consider its structure To plan the features of a web page To consider the ownership and use of images (copyright) To recognise the need to preview pages To outline the need for a navigation path To recognise the implications of linking to content owned by other people To choose how to improve a game by using variables To design a project that builds on a given example To use my design to create a project To evaluate my project To plan my own 3D model To create my own digital 3D model To design a project that uses inputs and outputs on a controllable device To develop a program to use inputs and outputs on a

							controllable device

Effective Use of Tools	Uses ICT hardware to interact with age appropriate computer software	To use a mouse in different ways To use a keyboard to type on a computer To use the keyboard to edit text To create rules for using technology responsibly To describe what different freehand tools do To use the shape tool and the line tools To make careful choices when painting a digital picture To explain why I chose the tools I used To use a computer on my own to paint a picture To compare painting a picture on a computer and on paper To use a computer to write To add and remove text on a computer To identify that the look of text can be changed on a computer To make careful choices when changing text To explain why I used the tools that I chose To compare typing on a computer to writing on paper	To make choices when taking a photograph To decide how photographs can be improved To use tools to change an image To recognise that photos can be changed To recognise that objects can be represented as pictures To create a pictogram To select objects by attribute and make comparisons To recognise that people can be described by attributes To explain that we can present information using a computer	To explain that animation is a sequence of drawings or photographs To relate animated movement with a sequence of images To identify the need to work consistently and carefully To review and improve an animation To evaluate the impact of adding other media to an animation To explore a new programming environment To recognise that text and layout can be edited To choose appropriate page settings To add content to a desktop publishing publication To consider how different layouts can suit different purposes To consider the benefits of desktop publishing To explain how a sprite moves in an existing project To create a program to move a sprite in four directions To use a digital device to collect data automatically To explain that a data logger collects 'data	To create a branching database To explain why it is helpful for a database to be well structured To plan the structure of a branching database To explain that audio recordings can be edited To recognise the different parts of creating a podcast project To apply audio editing skills independently To combine audio to enhance my podcast project To create a program in a text-based language To explain that the composition of digital images can be changed To explain that colours can be changed in digital images To explain how cloning can be used in photo editing To explain that images can be combined To combine images for a purpose To evaluate how changes can improve an image	To explain how search results are ranked To recognise why the order of results is important, and to whom To create a storyboard To identify that video can be improved through reshooting and editing To consider the impact of the choices made when making and sharing a video To use a form to record information To explain that tools can be used to select specific data To explain that computer programs can be used to compare data visually To use a real-world database to answer questions To identify that drawing tools can be used to produce different outcomes To create a vector	To explain the importance of internet addresses To recognise how data is transferred across the internet To explain how sharing information online can help people to work together To evaluate different ways of working together online To recognise how we communicate using technology To evaluate different methods of online communication To recognise the need to preview pages To outline the need for a navigation path To recognise the implications of linking to content owned by other people To explain that formulas can be used to produce calculated data To apply formulas to data To create a spreadsheet to plan an event

				points' from sensors over time To recognise how a computer can help us analyse data To identify the data needed to answer questions		drawing by combining shapes To use tools to achieve a desired effect To recognise that vector drawings consist of layers To group objects to make them easier to work with	To choose suitable ways to present data To recognise that you can work in three dimensions on a computer To identify that digital 3D objects can be modified To recognise that objects can be combined in a 3D model To create a 3D model for a given purpose To plan my own 3D model To create my own digital 3D model
Impact of Technology	Shows an interest in technological toys with knobs or pulleys, real objects such as cameras, and touchscreen devices such as mobile phones and tablets	To identify technology To act out a given word	To identify the uses of information technology in the school To identify information technology beyond school To explain how information technology helps us To recognise that choices are made when using information technology	To recognise how digital devices can change the way we work To consider the benefits of desktop publishing	To evaluate the consequences of unreliable content To explain that colours can be changed in digital images	To recognise the role of computer systems in our lives To describe how search engines select results	To evaluate different ways of working together online To recognise the implications of linking to content owned by other people
Networks			To recognise the uses and features of information technology To identify the uses of information technology in the school To identify information technology beyond school To explain how information	To explain how a computer network can be used to share information To explore how digital devices can be connected To recognise the physical components of a network	To describe how networks physically connect to other networks To recognise how networked devices make up the internet To outline how websites can be shared via the	To experiment with search engines To describe how search engines select results To explain how search results are ranked To recognise why	To explain the importance of internet addresses To recognise how data is transferred across the internet To explain how sharing information online can help

			technology helps us To explain how to use information technology safely To recognise that choices are made when using information technology		World Wide Web (WWW) To describe how content can be added and accessed on the World Wide Web (WWW) To recognise how the content of the WWW is created by people To evaluate the consequences of unreliable content	the order of results is important, and to whom	people to work together To evaluate different ways of working together online To recognise how we communicate using technology To evaluate different methods of online communication To review an existing website and consider its structure To outline the need for a navigation path To recognise the implications of linking to content owned by other people
Programming	Completes a simple program on electronic devices	To combine forwards and backwards commands to make a sequence To combine four direction commands to make sequences To choose a command for a given purpose To show that a series of commands can be joined together To identify the effect of changing a value To explain that each sprite has its own instructions To design the parts of a project To use my algorithm to	To use logical reasoning to predict the outcome of a program To explain that programming projects can have code and artwork To create and debug a program that I have written To explain that a sequence of commands has a start To explain that a sequence of commands has an outcome To create a program using a given design To change a given design To create a program using my own design To decide how my project can be improved	To explore a new programming environment To identify that commands have an outcome To explain that a program has a start To recognise that a sequence of commands can have an order To change the appearance of my project To create a project from a task description To explain how a sprite moves in an existing project To create a program to move a sprite in four directions To adapt a program to a	To identify that accuracy in programming is important To create a program in a text-based language To explain what 'repeat' means To modify a count-controlled loop to produce a given outcome To decompose a task into small steps To create a program that uses count-controlled loops to produce a given outcome	To control a simple circuit connected to a computer To write a program that includes count-controlled loops To explain that a loop can stop when a condition is met To explain that a loop can be used to repeatedly check whether a condition has been met To design a physical project that includes selection To create a program that	To define a 'variable' as something that is changeable To explain why a variable is used in a program To choose how to improve a game by using variables To design a project that builds on a given example To use my design to create a project To evaluate my project To explain that formulas can be used to produce calculated data

		create a program		new context To develop my program by adding features To identify and fix bugs in a program To design and create a maze-based challenge		controls a physical computing project To explain how selection is used in computer programs To relate that a conditional statement connects a condition to an outcome To explain how selection directs the flow of a program To design a program which uses selection To create a program which uses selection To evaluate my program	To apply formulas to data To create a program to run on a controllable device To explain that selection can control the flow of a program To update a variable with a user input To use a conditional statement to compare a variable to a value To design a project that uses inputs and outputs on a controllable device To develop a program to use inputs and outputs on a controllable device
Safety and Security	???	To create rules for using technology responsibly	To recognise the uses and features of information technology To explain how to use information technology safely To recognise that choices are made when using information technology To explain that we can present information using a computer		To describe how networks physically connect to other networks To evaluate the consequences of unreliable content To combine images for a purpose	To capture video using a range of techniques	To consider the ownership and use of images (copyright)