Curriculum Overview

Curriculum Overview

Year 1

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Computing Strand	COMPUTER SYSTEMS AND NETWORKS	CREATING MEDIA	PROGRAMMING A	DATA AND INFORMATION	CREATING MEDIA	PROGRAMMING B
Unit	1.1 'Technology Around Us'	1.2 'Digital Painting'	1.3 'Moving a Robot'	1.4 'Grouping Data'	1.5 'Digital Writing'	1.6 'Programming Animations'
NC Links	Use technology purposefully to create, organise, store, manipulate, and retrieve digital content. Recognise common uses of information technology beyond school. Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.	Use technology safely and respectfully, keeping personal information private; identify.	Understand what algorithms are, how they are implemented as programs on digital devices, and that programs execute by following precise and unambiguous instructions. Create and debug simple programs. Use logical reasoning to predict the behaviour of simple programs.	Use technology purposefully to create, organise, store, manipulate, and retrieve digital content. Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.	Use technology purposefully to create, organise, store, manipulate, and retrieve digital content. Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.	Understand what algorithms are, how they are implemented as programs on digital devices, and that programs execute by following precise and unambiguous instructions. Create and debug simple programs. Use logical reasoning to predict the behaviour of simple programs.
Hardware	Desktops / laptops	Desktops / laptops	BeeBots or other floor robots.	Desktops / laptops	Desktops / laptops	Desktops, laptops or iPads.
Programs / Software	Paintz.app or Microsoft paint.	Paintz.app, Microsoft paint or Just 2 Easy Write.		Microsoft Powerpoint, Google Slides Jamboard.	Microsoft Word, Google Docs or Just 2 Easy Write.	Scratch Jnr app on ipads or software on desktops.

Curriculum Overview

Year 2

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Computing Strand	COMPUTER SYSTEMS AND NETWORKS	CREATING MEDIA	PROGRAMMING A	DATA AND INFORMATION	CREATING MEDIA	PROGRAMMING B
Unit	2.1 'Information Technology Around Us'	2.2 'Digital Photography'	2.3 'Robot Algorithms'	2.4 'Pictograms'	2.5 'Digital Music'	2.6 'Programming Quizzes'
NC Links	Use technology purposefully to create, organise, store, manipulate, and retrieve digital content. Recognise common uses of information technology beyond school. Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.	Use technology purposefully to create, organise, store, manipulate, and retrieve digital content. Recognise common uses of information technology beyond school. Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.	Understand what algorithms are, how they are implemented as programs on digital devices, and that programs execute by following precise and unambiguous instructions. Create and debug simple programs. Use logical reasoning to predict the behaviour of simple programs.	Use technology purposefully to create, organise, store, manipulate, and retrieve digital content. Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.	Use technology purposefully to create, organise, store, manipulate, and retrieve digital content. Use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about content or contact on the internet or other online technologies.	Understand what algorithms are, how they are implemented as programs on digital devices, and that programs execute by following precise and unambiguous instructions. Create and debug simple programs. Use logical reasoning to predict the behaviour of simple programs.
Hardware	Desktops / laptops	iPad, digital camera, etc.	BeeBots/other floor robots.	Desktops / laptops / iPads	Desktops / laptops / iPads	Desktops/laptops/ iPads
Programs / Software	Microsoft Powerpoint, Popplet, Google Slides Jamboard	Pixlr image editing software/Canva/editing software within ipads.		Just 2 Easy pictogram/purple mash: 2 count.	Chrome music lab/Garage Band app.	Scratch Jnr app on ipads/software on desktops.

Curriculum Overview

Year 3

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Computing Strand	COMPUTER SYSTEMS AND NETWORKS	CREATING MEDIA	PROGRAMMING A	DATA AND INFORMATION	CREATING MEDIA	PROGRAMMING B
Unit	3.1 'Connecting Computers	3.2 'Stop-Frame Animation'	3.3 'Sequencing Sounds'	3.4 'Branching Databases'	3.5 'Desktop Publishing'	3.6 'Events and Actions in Programs'
NC Links	Use sequence, selection, and repetition in programs; work with variables and various forms of input and output. Understand computer networks, including the internet; how they can provide multiple services, such as the World Wide Web, and the opportunities they offer for communication and collaboration. Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.	Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information. Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.	Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. Use sequence, selection, and repetition in programs; work with variables and various forms of input and output. Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs. Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.	Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information. Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.	Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content. Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.	Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. Use sequence, selection, and repetition in programs; work with variables and various forms of input and output. Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs. Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.
Hardware	Desktops / laptops and digital camera/iPad (optional)	iPad or desktop/laptop	Desktops / laptops	Desktops / laptops / iPads	Desktops / laptops / iPads	Desktops/laptops
Programs / Software	Paintz.app/Microsoft paint brushes redux for ipads.	iMotion/Stop Motion Studio (if using desktop)	Scratch (downloaded onto desktop or use browser).	Just 2 Easy: Branch	Adobe creative cloud express / Canva / Microsoft publisher.	Scratch (downloaded onto desktop or use browser).

Curriculum Overview

Year 4

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Computing Strand	COMPUTER SYSTEMS AND NETWORKS	CREATING MEDIA	PROGRAMMING A	DATA AND INFORMATION	CREATING MEDIA	PROGRAMMING B
Unit	4.1 'The Internet'	4.2 'Audio Production'	4.3 'Repetition in Shapes'	4.4 'Data Logging'	4.5 'Photo Editing'	4.6 'Repetition in Games'
NC Links	Understand computer networks, including the internet; how they can provide multiple services, such as the World Wide Web, and the opportunities they offer for communication and collaboration. Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content. Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information. Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.	Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content. Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information. Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.	Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. Use sequence, selection, and repetition in programs; work with variables and various forms of input and output. Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs. Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.	Use sequence, selection, and repetition in programs; work with variables and various forms of input and output. Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.	Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content. Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information. Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.	Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. Use sequence, selection, and repetition in programs; work with variables and various forms of input and output. Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs. Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.
Hardware	Desktops / laptops / iPads	Desktops / laptops / iPads	Desktops / laptops / iPads	Desktops / laptops iPads/ Data Loggers	Desktops / laptops / iPads	Desktops/laptops
Programs / Software	Chrome Music Lab	Audacity / BandLab GarageBand app / Online Voice Recorder Vocaroo.	Turtle Academy Online / FMS Logo	Just 2 Easy: Branch	Adobe creative cloud express / Canva / Microsoft publisher.	Scratch (downloaded onto desktop or use browser).

Curriculum Overview

Year 5

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Computing Strand	COMPUTER SYSTEMS AND NETWORKS	CREATING MEDIA	PROGRAMMING A	DATA AND INFORMATION	CREATING MEDIA	PROGRAMMING B
Unit	5.1 'Systems and Searching'	5.2 'Video Production'	5.3 'Selection in Physical Computing'	5.4 'Flat-File Databases'	5.5 'Introduction to Vector Graphics'	5.6 'Selection in Quizzes'
NC Links	Understand computer networks, including the internet; how they can provide multiple services, such as the World Wide Web, and the opportunities they offer for communication and collaboration. Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information. Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.	Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content. Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information. Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.	Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. Use sequence, selection, and repetition in programs; work with variables and various forms of input and output. Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs. Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.	Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content. Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.	Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.	Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. Use sequence, selection, and repetition in programs; work with variables and various forms of input and output. Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs. Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.
Hardware	Desktops / laptops	iPads / digital cameras / desktop with webcam.	Desktops / laptops / iPads Crumble Starter Kits Geared Motors and Wheels (L2, 5 and 6)	Desktops / laptops	Desktops / laptops	Desktops/laptops
Programs / Software	Google Slides / Microsoft Powerpoint (365)	Windows Movie Maker / Microsoft Photos App / iMovie / Canva	Crumbles software	Just 2 Easy: Database	Google Drawings / Microsoft Publisher / Microsoft Powerpoint / Boxy SVG	Scratch (downloaded onto desktop or use browser).

Curriculum Overview

Year 6

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Computing Strand	COMPUTER SYSTEMS AND NETWORKS	CREATING MEDIA	PROGRAMMING A	DATA AND INFORMATION	CREATING MEDIA	PROGRAMMING B
Unit	6.1 'Communication and Collaboration'	6.2 'Webpage Creation'	6.3 'Variables in Games'	6.4 'Introduction to Spreadsheets'	6.5 '3D modelling'	6.6 'Sensing Movement
NC Links	Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. Understand computer networks, including the internet; how they can provide multiple services, such as the World Wide Web, and the opportunities they offer for communication and collaboration. Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.	Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content. Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information. Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.	Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. Use sequence, selection, and repetition in programs; work with variables and various forms of input and output. Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs. Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information. Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.	Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.	Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information. Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.	Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts. Use sequence, selection, and repetition in programs; work with variables and various forms of input and output. Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs. Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.
Hardware	Desktops / laptops / iPads	Desktops / laptops	Desktops / laptops	Desktops / laptops	Desktops / laptops	Desktops/laptops Micro:bits, micro USB lead, battery pack, 2 x AAA batteries per micro:bit
Programs / Software	Web browsers on chosen hardware	Google Sites / Microsoft Powerpoint / Adobe Creative Cloud Express	Scratch (downloaded onto desktop or use browser).	Google Sheets / Microsoft Excel / Purple Mash: 2 Calculate	Tinkercad / Purple Mash: 2 Design and Make / Sketchup	Micro:bit emulator, MakeCode.