Computing at Pensans School

EYFS			
Themes	**Autumn**	**Spring**	**Summer**
Barefoot Computing resources	Online Safety and Winter Warmers	Online Safety and Springtime	Online Safety and Summer Fun

Within the revised EYFS statutory framework, the Technology strand within Understanding the World has been removed. However, there are opportunities within each area of the framework to enable practitioners to effectively prepare children for studying the computing curriculum.

Despite computing not being explicitly mentioned within the Early Years Foundation Stage (EYFS) statutory framework, we provide many opportunities for young children to use technology to solve problems and produce creative outcomes. In particular, many areas of the framework provide opportunities for pupils to develop their ability to use computational thinking effectively. This is built upon through undertaking projects involving the concepts and approaches suggested by Computing at School's (CAS) Barefoot Computing resources.

As the children take part in a variety of tasks with digital devices, they will already be familiar with the device before being asked to undertake tasks related to the key stage one computing curriculum, such as writing and testing a simple program. Not only will children be keen to again use a device they had previously enjoyed using, their cognitive load will also be reduced, meaning they are more likely to succeed when undertaking activities linked to the next stage in their learning.

Year 1/2 Year A			
	Autumn term	**Spring term**	**Summer Term**
1st half term	Technology around us	Digital painting	Moving a Robot
Sequence of lessons	1. Technology in our classroom 2. Using Technology 3. Developing Mouse Skills 4. Using a computer keyboard 5. Developing Keyboard skills 6. Using a computer responsibly	1. How can we paint using computers? 2. Using shapes and lines 3. Making careful choices 4. Why did I choose that? 5. Painting all by myself 6. Comparing computer art and painting	1. Buttons 2. Directions 3. Forwards and backwards 4. Four directions 5. Getting there 6. Routes
Vocabulary	Computer, mouse/trackpad, keyboard, screen, click and drag, draw, input device, shift, space bar, safely, responsibly, computer, technology	Painting, primary colours, brush, size, shape tool, fill, line, undo, colour	Forwards, backwards, turn, clear, go, commands, instructions directions, left, right, plan, algorithm, program, route,
Learning objectives and Skills	• To identify a computer and its main parts • To use a mouse in different ways • To use a keyboard to type • To use the keyboard to edit text • To create rules for using technology responsibly	• To describe what the 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 explain what a command will do • To act out a given word • To combine forwards and backwards commands to make a sequence • To combine of our direction commands to make a sequence • To plan a simple program • To find more than one solution to a problem
2nd half term	Information technology around us	Digital photography	Robot algorithms
Sequence of lessons	1. What is IT? 2. IT in school 3. IT in the world 4. The benefits of IT 5. Using IT safely 6. Using IT in different ways	1. Taking photographs 2. Landscape or portrait 3. What makes a good photograph? 4. Lighting 5. Effects 6. Is it real?	1. Giving instructions 2. Same but different 3. Making predictions 4. Mats and routes 5. Algorithm design 6. Debugging
Vocabulary	Information technology, computer, barcode, scanner/scan,	Device, camera, photograph, capture, image, digital, landscape, portrait,	Instruction, sequence, clear, unambiguous, algorithm, program, order commands,

		horizontal, vertical, field of view, narrow, wide, format, framing, focal point, subject matter, field of view, compose, natural lighting, artificial lighting, flash, focus, background, foreground, editing, tools, colour, filter, images, Pixlr, format, lighting, changed, real.	prediction, program, artwork, design, route, debugging
Skills	• To recognise the uses and features of information technology • To identify information technology in the home • To identify information technology beyond school • To explain how information technology benefits us • To show how to use information technology safely • To recognise that choices are made when using information technology	• To know what devices can be used to take photographs • To use a digital device to take 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 images can be changed	• 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

KS1 National Curriculum Requirements

Computer science units:

Co2/1.1 understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions

Co2/1.2 create and debug simple programs

Co2/1.3 use logical reasoning to predict the behaviour of simple programs

Information technology units:

Co2/1.4 use technology purposefully to create, organise, store, manipulate and retrieve digital content

Co2/1.5 recognise common uses of information technology beyond school

Co2/1.6 use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about material on the internet or other online technologies

Year 1/2 Year B			
	Autumn term	Spring term	Summer Term
1st half term	Grouping data	Digital writing	Programming animation
Sequence of lessons	1. Computer systems and networks- Technology around us 2. Creating media- digital painting 3. Programming A – moving a robot 4. Data and information – Grouping data 5. Creating Media – digital writing 6. Programming B – programming animations	1. Exploring the keyboard 2. Adding and removing text 3. Exploring the toolbar 4. Making changes to text 5. Explaining my choices 6. Pencil or keyboard	1. Comparing Tools 2. Joining blocks 3. Make a change 4. Adding sprites 5. Project design 6. Following my design
Vocabulary	Object, label, group, search, image, property, colour, size, shape, value, more, less, most, least, fewest, the same, data set.	Word processor, keyboard, keys, letters, numbers, space, backspace, Google docs, text cursor, capital letter, underline, bold, italic, toolbar, font, undo,	Scratch JR, Bee-bot, command, sprite, compare, programming, block, joining, run, program, area, background, delete, reset, algorithm, predict, effect, change, value, instructions, design.
Learning objectives and Skills	• 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 use a computer to write • To add and remove text on a computer • To identify that the look of the text can be changed on a computer • To make careful choices when changing txt • To explain why I used the tools that I chose • To compare writing on a computer with writing on paper	• 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 create a program
2nd half term	Pictograms	Making music	An introduction to quizzes
Sequence of lessons	1. Counting and comparing 2. Enter the data 3. Creating pictograms 4. What is an attribute? 5. Comparing people 6. Presenting information	1. How music makes us feel 2. Rhythms and patterns 3. How music can be used 4. Notes and tempo 5. Creating digital music 6. Reviewing and editing music	1. ScratchJr recap 2. Outcomes 3. Using a design 4. Changing a design 5. Designing and creating a programme 6. Evaluating

Vocabulary	Data, more than, less than, most, least, organise, object, tally chart, votes, total, pictogram, enter, compare, count, explain, more common/least common, attribute, different, conclusion, most/least popular, block diagram, sharing,	Music, war, peace, quiet, loud, feelings, emotions, pattern, rhythm, pitch, tempo, notes, create, pulse/beat, open, edit	Sequence, command, program, run, start, outcome, predict, blocks, sprite, algorithm, design, modify, change, features, evaluate, match, build, actions, project, compare.
Skills	• 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 describes by attributes • To explain that we can present information using a computer	• To say how music can make us feel • To identify that there are patterns in music • To describe how music can be used indifferent ways • To show how music is made from a series of notes • To create music for a purpose • To review and refine our computer work	• 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

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Information technology units:

Co2/1.4 use technology purposefully to create, organise, store, manipulate and retrieve digital content

Co2/1.5 recognise common uses of information technology beyond school

Co2/1.6 use technology safely and respectfully, keeping personal information private; identify where to go for help and support when they have concerns about material on the internet or other online technologies

Year 3/4 Year A

	Autumn term	Spring term	Summer Term
1st half term	Connecting computers	Sequence in music	Desktop publishing
Sequence of lessons	1. How does a digital device work? 2. What parts make up a digital device? 3. How do digital devices help us? 4. How am I connected? 5. How are computers connected? 6. What does our school network look like?	1. Introduction to Scratch 2. Programming sprites 3. Sequences 4. Ordering commands 5. Looking good 6. Making an instrument	1. Words and pictures 2. Can you edit it? 3. Great template 4. Can you add content? 5. Lay it out 6. Why desktop publishing?
Vocabulary	Digital device, input, output, process, program, connection, network, switch, server, Wireless Access Point (WAP),	Scratch, programming blocks, commands, code, sprite, costume, stage, backdrop, motion, turn, point in direction, go to , glide, event, sequence, task, design, run the code, order, note, chord, algorithm, bug, debug	Text, images, advantages, disadvantages, communicate, font, style, template, landscape, portrait, orientation, placeholder, desktop publishing, copy, paste, layout, purpose, benefits
Learning objectives and Skills	● 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 explore a new programming environment ● To identify that each sprite is controlled by the commands I choose ● 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 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
2nd half term	Stop frame animation	Branching databases	Events and actions
Sequence of lessons	1. Can a picture move? 2. Frame by Frame 3. What's the story? 4. Picture perfect 5. Evaluate and make it great! 6. Lights, camera, action	1. Yes or no questions 2. Making groups 3. Creating a branching database 4. Structuring a branching database 5. Using a branching database 6. Two ways of presenting information	1. Moving a sprite 2. Maze movement 3. Drawing lines 4. Adding features 5. Debugging movement 6. Making a project
Vocabulary	Animation, flipbook, stop frame animation, frame, sequence, image, photograph, setting, character, events, onion skinning,	Branching database, attribute, value, questions, table, objects, equal, even, separate, compare, order, organise,	Motion, event, sprite, algorithm, logic, move, resize, extension block, pen up, set

	consistency delete, evaluation, media, import, transition	structure, J2 data, selecting, pictogram information, decision tree	up, design, event, actions, debugging, errors, setup, code, test,
Learning objectives and Skills	• To explain that animation is a sequence of drawings of 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 evaluation the impact of adding other media to an animation	• To create questions with yes/no answers • To identify the object attributes needed to collect relevant data • To create a branching database • To identify objects using a branching data base • To explain why it is helpful for a database to be well structured • To compare the information shown in a pictogram with a branching database	• 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 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

KS2 National Curriculum Requirements

Computer science units:

Co2/1.1 design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts

Co2/1.2 use sequence, selection, and repetition in programs; work with variables and various forms of input and output

Co2/1.3 use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs

Information technology units:

Co2/1.4 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

Co2/1.5 use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content

Co2/1.6 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.

Co2/1.7 use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact

Year 3/4 Year B

	Autumn term	Spring term	Summer Term
1st half term	The internet	Repetition in shapes	Photo editing
Sequence of lessons	1. Connecting devices 2. What is the internet made of? 3. Sharing information 4. What is a website? 5. Who owns the web? 6. Can I believe what I read?	1. Programming a screen turtle 2. Programming letters 3. Patterns and repeats 4. Using loops to create shapes 5. Breaking things down 6. Creating a program	1. Changing digital images 2. Changing the composition of images 3. Changing images for different uses 4. Retouching images 5. Fake images 6. Making and evaluating a publication
Vocabulary	Internet, network, router, network security, network switch, server wireless access pint (WAP), website, web page, web address, routing, route tracing browser, world wide web, links, files, content, information sharing, accurate honest, adverts.	Program, turtle, Pattern, repeat, repetition, count-controlled loop, algorithm, value, commands, code, snippet, design, debug, Logo commands, trace, decompose, procedure,	Image, edit, arrange, select, digital, crop, undo, save, image, search, save, copyright, composition, pixels, rotate, flip, Image, adjustments, effects, colours, hue/saturation, sepia, version, illustrator, vignette, retouch, clone, recolour, magic wand, select, adjust, sharpen, brighten, , fake, real, composite, cut, copy, paste, alter, background, foreground, publication, elements, original, font style, shapes, border, layer
Learning objectives and Skills	• 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 World Wide Web • To describe how content can be added and accessed on the World Wide Web • To recognise how the content of the WWW is created by people • To evaluate the consequences of unreliable content	• 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 program into parts • To create a program that uses count-controlled loops to produce a given outcome	• To explain that digital images can be changed • To change the composition of an image • To describe how images can be changed for different uses • To make good choices when selecting different tools • To recognise that not all images are real • To evaluate how changes can improve an image
2nd half term	Audio editing	Data logging	Repetition in games
Sequence of lessons	1. Digital recording 2. Recording sounds 3. Creating a podcast 4. Editing digital recordings 5. Combining audio 6. Evaluating podcasts	1. Answering questions 2. Data collection 3. Logging 4. Analysing data 5. Data for answers 6. Answering my question	1. Using loops to create shapes 2. Different loops 3. Animate your name 4. Modifying a game 5. Designing a game

			6. Creating our games
Vocabulary	Audio, record, playback, microphone, speaker, headphones, input, output, sound, playback, start, pause, stop, podcast, edit, open, selection, save, file, mixing, tie shift, export, MP3, evaluate, feedback.	Data logger, data, table, layout, input device, sensor, logging, data point, interval, analyse, data set, import, export, logged, collection, analyse, review, conclusion.	Scratch, programming, algorithm, sprite, blocks, code, loop, repeat, value, repeat, forever, infinite loop, count controlled loop, costume, repetition, animate, event block, duplicate, design, modify, refine, evaluate,
Learning objectives and Skills	• To identify that sound can be digitally recorded • To use a digital device to record sound • To explain that a digital recording is stored as a file • To explain that audio can be changed through editing • To show that different types of audio can be combined and played together • To evaluate editing choices made	• 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 use data collected over a long duration to find information • To identify the data needed to answer questions • To use collected data to answer questions	• develop the use of count-controlled loops in a different programming environment • To explain that in programming there are infinite loops and count controlled loops • To develop a design which includes two or more loops which run at the same time • To modify an infinite loop in a given program • To design a project that includes repetition • To create a project that includes repetition

KS2 National Curriculum Requirements

Computer science units:

Co2/1.1 design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts

Co2/1.2 use sequence, selection, and repetition in programs; work with variables and various forms of input and output

Co2/1.3 use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs

Information technology units:

Co2/1.4 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

Co2/1.5 use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content

Co2/1.6 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.

Co2/1.7 use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact

Year 5/6 Year A			
	Autumn term	Spring term	Summer Term
1st half term	Sharing information – systems and searching	Selection in physical computing	Vector drawing
Sequence of lessons	1. Systems 2. Computer systems and us 3. Searching the web 4. Selecting search results 5. How search results are ranked 6. How are searches influenced	1. Connecting Crumbles 2. Combing output components 3. Controlling with conditions 4. Starting with selection 5. Drawing designs 6. Writing and testing algorithms	1. The drawing tools 2. Creating images 3. Making effective drawings 4. Layers and objects 5. Manipulating objects 6. Creating a vector drawing
Vocabulary	system, connections, digital, input, process, output, protocol, address, packet, chat, explore, slide deck, reuse, remix, collaboration	Microcontroller, Crumble controller, components, LED, Sparkle, crocodile clips, connect, battery box, program, repetition, infinite loop, output devices, motor, count-controlled loop, condition, true, false, input , selection, action Task, design, algorithm, debug, evaluate	Vector, drawing tools, shapes, object, icons, toolbar, move, resize, colour, rotate, duplicate/copy, organise, zoom, select, rotate, alignment grid, resize, handles, consistency, modify, layers, front, back, order, Copy, paste, group, ungroup, duplicate, vector drawing, reuse, Improvement, evaluate, alternatives,
Learning objectives and Skills	• To explain that computers can be connected together to form systems • To recognise the role of computer systems in our lives • To recognise how information is transferred over the internet • To explain how sharing information online lets people in different places work together • To contribute to a shared project online • To evaluate different ways of working together online	• 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, eg number of times • To conclude 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 controllable system that includes selection	• 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 evaluate my vector drawing
2nd half term	Video editing	Flat-file databases	Selection in quizzes

Sequence of lessons	1. What is a video? 2. Filming techniques 3. Using a storyboard 4. Planning a video 5. Importing and editing video 6. Video evaluation	1. Creating a paper-based database 2. Computer databases 3. Using a database 4. Using search tools 5. Comparing data visually 6. Databases in real life	1. Exploring conditions 2. Selecting outcomes 3. Asking questions 4. Planning a quiz 5. Testing a quiz 6. Evaluating a quiz
Vocabulary	Video, audio, AV (audio-visual), recording, storyboard, dialogue, capture, tape, digital, save, videographer, lighting, setting, Youtuber, content, soundtrack, retake/reshoot, special effects, title screen, end credits, export, constructive feedback, Video techniques: zoom, pan, tilt, angle	Database, data, information, record, field, sort, order, group, search, value, criteria, graph, chart, axis, compare, filter, presentation	Selection, condition, true, false, outcomes, count controlled loop, conditional statement - the linking together of a condition and outcomes- algorithm, program, debug, questions, answer, implement, design, test, run, setup, share, evaluate, constructive
Learning objectives and Skills	● To identify digital devices that can record video ● To capture video using a digital device ● To recognise the features of an effective video ● 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 compare paper and computer-based databases ● To outline how grouping and then sorting data allows us to answer questions ● To explain that tools can be used to select specific data ● To explain that computer programs can be used to compare data visually ● To apply my knowledge of a database to ask and answer real-world questions	● 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

KS2 National Curriculum Requirements

Computer science units:

Co2/1.1 design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts

Co2/1.2 use sequence, selection, and repetition in programs; work with variables and various forms of input and output

Co2/1.3 use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs

Information technology units:

Co2/1.4 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

Co2/1.5 use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content

Co2/1.6 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. Co2/1.7 use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact

Year 5/6 Year B			
	Autumn term	**Spring term**	**Summer Term**
1st half term	Communication	Variable in games	3D modelling
Sequence of lessons	1. Internet addresses 2. Data packets 3. Working together 4. Shared working 5. How we communicate 6. Communicating responsibly	1. Introducing variables 2. Variables in programming 3. Improving a game 4. Designing a game 5. Design to code 6. Improving and sharing	1. Introduction to 3D modelling 2. Modifying 3D objects 3. Make your own name badge 4. Making a desk tidy 5. Planning a 3D model 6. Make your own 3D model
Vocabulary	Index, crawler, bot, search engine, Ranking, search engine optimisation, links, web crawlers, content creator communication, internet, public, private, one-way, two-way, one-to-one, one-to-many, SMS, email, WhatsApp, blog, Website, web page, browser, media, Hypertext markup Language (HTML) logo, layout, header, media, purpose	Variable, name, value, set, change, design, event, Design, algorithm, code, task, algorithm, artwork, program, project, code, test, debug, Improve, evaluate, share	2D, 3D, 3D object, 3D space, view, resize, colour, lift, rotate, position, select, duplicate, dimensions, placeholder, hole, group, ungroup, design , modify, evaluate, improve
Learning objectives and Skills	• To describe how search engines select results • To explain how search results are ranked • To recognise why the order of results is important, and to whom • To recognise how we communicate using technology • To evaluate different methods of online communication	• 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 use a computer to create and manipulate three-dimensional (3D) digital objects • To compare working digitally with 2D and 3D graphics • To construct a digital 3D model of a physical object • To identify that physical objects can be broken down into a collection of 3D shapes • To design a digital model by combining 3D objects

			• To develop and improve a digital 3D model
2nd half term	Web page creation	Introduction to spreadsheets	Sensing Movement
Sequence of lessons	1. What makes a good website? 2. How would you layout your web page? 3. Copyright or copyWRONG? 4. How does it look? 5. Follow the breadcrumbs 6. Think before you link!	1. Collecting data 2. Formatting a spreadsheet 3. What's the formula? 4. Calculate and duplicate 5. Event planning 6. Presenting data	1. The micro:bit 2. Go with the flow 3. Sensing inputs 4. Finding your way 5. Designing a step counter 6. Making a step counter
Vocabulary	Website, web page, browser, media, Hypertext Markup Language (HTML) logo, layout, header, media, purpose, Copyright, fair use, home page, preview, evaluate, device, Google Sites, breadcrumb trail, navigation, hyperlink, subpage, Hyperlink, evaluate, implication, external link, embed	Spreadsheet, data, data item, data set, data heading, cells, columns and rows, object, spreadsheet application, format, common attribute, formula, calculation, input, output, cell reference, calculate, operation, formula, range, duplicate, sigma, propose, question, organised graph, chart, evaluate, results, comparison, questions, software, tools	Micro:bit, MakeCode, input, process, output, flashing, USB, Selection, condition, if… then… else, variable, random, variable, sensing, accelerometer, Compass, direction, navigation, Micro:bit, design, task, algorithm, variable, step counter, Plan, create, code, test, debug
Learning objectives and Skills	• 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 identify questions which can be answered using data • To explain that objects can be described using data • To explain that formula can be used to produce calculated data • To apply formulas to data, including duplicating • To create a spreadsheet to plan an event • To choose suitable ways to present 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 an 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

KS1 National Curriculum Requirements

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Co2/1.3 use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs

Information technology units:

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Co2/1.5 use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content
Co2/1.6 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.
Co2/1.7 use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact