MrPICT.com Computing Progression Document

Computational Thinking		
Year Group	**Key Vocabulary**	**Apps and Links**
EYFS	Instruction, follow, first, next,	Resources from MrPICT.com, Barefoot Computing
1	Algorithm, sequence, order, bug, fix, precise	Resources from MrPICT.com, Barefoot Computing
2	Decomposition, debug, reason, detail, breakdown, task	Resources from MrPICT.com, Barefoot Computing
3	Abstraction, information, relevant, pattern, same, different, complex	Resources from MrPICT.com, Barefoot Computing
4	Logical reasoning, design, algorithmic thinking, selection, repeat	Resources from MrPICT.com, Barefoot Computing
5	Evaluation, effectiveness, complexity, data, prediction, condition	Resources from MrPICT.com, Barefoot Computing
6	Generalisation, pattern, reuse, modify, remix, critical	Resources from MrPICT.com, Barefoot Computing

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Computational Thinking

Year Group	NC Objectives	Knowledge Statements
EYFS	Creative and critical thinking Active learning (through unplugged activities)	• I begin to understand an algorithm is a sequence of instructions or set of rules to get things done. (Algorithms) • I can follow a simple algorithm by responding to oral instructions. (Algorithms) • I can begin to make my own simple algorithms by sequencing actions. (Algorithms) • I can start to explain my thought process and justify my decisions. (Logical reasoning) • I can explain what is the same and what is different (Pattern)
1	• 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	• I understand what algorithms are • I know how to write simple algorithms • I understand the sequence of algorithms is important • I know how to debug simple algorithms
2		• I know how to write algorithms for everyday tasks • I know how to use logical reasoning to predict the outcome of algorithms • I understand decomposition is breaking objects/processes down • I know how to debug algorithms

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Computational Thinking

Year Group	NC Objectives	Knowledge Statements
3	• 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 • 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	• I know how to create algorithms for my programming projects • I know how to decompose projects (such as an animation) into steps to create an algorithm • I understand abstraction is focusing on important information • I know how to identify patterns in an algorithm
4		• I know how to use abstraction to focus on what's important in my design • I know how to write more precise algorithms for use when programming • I know how to use simple selection and repetition in algorithms • I know how to use logical reasoning to detect and correct errors in programs
5		• I know how to solve problems by decomposing them into smaller parts • I know how to use selection in algorithms • I know how to use logical reasoning to explain how a variety of algorithms work • I know how to evaluate the effectiveness of algorithms
6		• I know how to decompose a design or code to focus on specific parts • I know how to use abstraction to hide complexity in my design or code • I know how to recognise and make use of patterns in my design and code • I know how to critically evaluate my work and suggest improvements

MrPICT.com Computing Progression Document

Coding and Programming

Year Group	Key Vocabulary	Apps and Links
EYFS	Mouse, touch screen, move, command, device	Beebot, Daisy The Dinosaur
1	Digital, program, follow, code, bugs, fix, order, ScratchJr	Beebot, Scratch Jnr, Kodable,
2	Precise, logical reasoning, prediction, debug, sequence	Beebot, Scratch Jnr, Kodable, Tynker,
3	Sequence, inputs, outputs, code, design, programming language, Scratch	Beebot, Scratch Jnr, Kodable, Tynker, Scratch 3, Hopscotch, Swift Playgrounds,
4	Repetition, loop, forever loop, count controlled loop, selection, condition, systematic	Beebot, Scratch Jnr, Kodable, Tynker, Scratch 3, Hopscotch, Swift Playgrounds,
5	Data, memory, variables, value, initialisation, control, simulate, physical system	Beebot, Scratch Jnr, Kodable, Tynker, Scratch 3, Hopscotch, Swift Playgrounds,
6	Procedure, abstraction, conditional loop, logic, operator, implement	Beebot, Scratch Jnr, Kodable, Tynker, Scratch 3, Hopscotch, Swift Playgrounds,

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Coding and Programming

Year Group	NC Objectives	Knowledge Statements
EYFS	Playing and Exploring Creative and critical thinking	• I can learn how digital toys and apps work through exploration (Tinkering) • I can input more than one command into a programmable toy or simple app • I can input a sequence of commands into a programmable toy or simple app • I fix things through trial and error (Debugging) • I can fix things and explain my approach (Debugging)
1	• 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	• I know how to create a simple program on a digital device e.g. Bee Bot or tablet • I know how to use sequence in programs • I know how to locate and fix bugs in my program
2		• I understand programs follow precise instructions • I know how to create programs using different digital devices E.g. Bee Bot or ScratchJr on a tablet • I know how to debug programs of increasing complexity • I know how to use logical reasoning to predict the outcome of simple programs

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Coding and Programming

Year Group	NC Objectives	Knowledge Statements
3	• 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 • 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	• I know how to design a program • I know how to create a program using a design • I know how to create a sequence of code • I know how to work with a variety of inputs and outputs • I know how to evaluate my program
4		• I know how to use repetition in programs • I know how to use simple selection in programs • I know how to work with a variety of inputs and outputs • I know how to use logical reasoning to systematically detect and correct errors in programs
5		• I know how to create programs by decomposing them into smaller parts • I know how to use a variety of selection commands in programs • I know how to use conditions in repetition commands • I know how to work with variables • I know how to create programs that control or simulate physical systems • I know how to evaluate my work and identify errors
6		• I know how to use a range of sequence, selection and repetition commands to implement my design • I know how to identify the need for, and work with, variables • I know how to create procedures to hide complexity in programs • I know how to critically evaluate my work and suggest improvements

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Computer Networks (KS2 only)		
Year Group	**Key Vocabulary**	**Apps and Links**
3	Network, server, client, LAN (Local Area Network), switch	Resources from MrPICT.com, Barefoot Computing
4	Internet, router, data, web page, submarine cable	Resources from MrPICT.com, Barefoot Computing
5	Search engine, spiders, index, ranked, ranking algorithm, keyword	Resources from MrPICT.com, Barefoot Computing
6	HTML (HyperText Markup Language), opening tag, closing tag, code	Resources from MrPICT.com, Barefoot Computing

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Computer Networks (KS2 only)

Year Group	NC Objectives	Knowledge Statements
3	• 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	• I understand that the computers in a school are connected together in a network • I understand why computers are networked
4		• I understand that servers on the Internet are located across the planet • I understand the difference between the Internet and WWW • I understand how web pages are viewed across the internet
5		• I know how to use search technologies effectively • I understand that web spiders index the web for search engines • I appreciate how pages are ranked in a search engine
6		• I understand what HTML is and recognize HTML tags • I know a range of HTML tags and can remix a web page • I know how to create a webpage using HTML

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Artificial Intelligence		
Year Group	**Vocabulary**	**Apps and Links**
EYFS	Machine, Computer, Robot,	MrPICT.com/ai
1	Program, algorithm, data, AI, technology, voice assistant, text, recognise	MrPICT.com/ai
2	Input, output, artificial intelligence, voice assistant, text, recognise	MrPICT.com/ai
3	Machine learning, expert system, bias, data, class, pattern	MrPICT.com/ai
4	Neural network, deep learning, big data, data, train, model, image, class, pattern	MrPICT.com/ai
5	Cloud computing, cognitive computing, robotics	MrPICT.com/ai,
6	Internet of Things (IoT), chatbot, computer vision, voice recognition, pattern, selection, condition	MrPICT.com/ai

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Artificial Intelligence

Year Group	Knowledge Statements
EYFS	• I know that machines and computers can be used to perform tasks. • I know interact with simple AI such as Siri and dictation.
1	• I know how to use simple AI technology and can talk about what it does • I know that data is used by computers to store and process information.
2	• I can explain some advantages and disadvantages of using simple AI technology • I know that artificial intelligence can be used to simulate human-like abilities in a computer.
3	• I understand data is used to train AI technology • I know the basics of machine learning and how computers can be trained to perform tasks using data and algorithms.
4	• I can train an AI model and investigate how more data can make it more accurate • I know about big data and how it can be used to inform decision-making and improve machine learning algorithms.
5	• I can can create and train an AI invention using image recognition • I know about computer vision and how computers can be trained to recognize and interpret images.
6	• I can train an AI model and use it within a program • I know about chatbots and how they can be used to simulate conversation with a computer.

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Word Processing/Typing

Year Group	Key Vocabulary	Apps and Links
EYFS	Computer, Keyboard, Device, Tablet, Dictate, type	Seesaw, Word, Pages Google Docs Pic Collage,
1	Space Bar, Delete, Return Key, Enter, Mouse, Trackpad, arrow keys,cursor, select,	Seesaw, Word, Pages Google Docs Pic Collage, Book Creator,
2	Cut, copy, paste. Caps Lock, Insert, Image, Save, clipboard, editing, header, highlight	Seesaw, Word, Pages Google Docs Pic Collage, Keynote Book Creator, Popplet
3	Touch type. Edit, format, font, size, borders, shadows, duplicate, organise, undo, redo, autocorrect, clipart	Seesaw, Word, Pages, Google Docs Keynote Book Creator, Popplet
4	Group, crop, source, object, posters, documents, eBooks, scripts, leaflets. CTRL, spell check, thesaurus, record,	Seesaw, Word, Pages Google Docs Keynote Book Creator, Popplet
5	Import, export, hyperlinks, animate, build in, build out, italics, bold, arrange, bullets,	Seesaw, Word, PagesGoogle Docs Keynote Book Creator, Popplet
6	Alignnment, application, tabs, toolbar, build order, layout, shift key, PDF, columns, graphics,	Seesaw, Word, Pages Google Docs Keynote Book Creator, Popplet

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Word Processing/Typing

Year Group	NC Objectives	Knowledge Statements
EYFS	Children recognise that a range of technology is used in places such as homes and schools. They select and use technology for particular purposes.	• I know how to play on a touch screen game and use computers/keyboards/mouse in role play • I know how to type letters with increasing confidence using a keyboard and tablet. • I know how to dictate short, clear sentences into a digital device.
1	Co2/1.4 use technology purposefully to create, organise, store, manipulate and retrieve digital content	• I know how to confidently type words quickly and correctly on a digital device. • I know how to .use the space bar to make space and delete to delete letters/ words • I know how to make a new line using enter/return • I know how to dictate into a digital device more accurately and with punctuation.
2		• I know how to use the space bar only once between words and use touch to navigate to words letter to edit • I know how to copy and paste images and text • I know how to use caps locks for capital letters. • I know how to add images alongside text in a word processed document. • I know how to dictate longer passages into a digital device with accurate punctuation.

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Word Processing/Typing

Year Group	NC Objectives	Knowledge Statements
3	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.	• I know how to use index fingers on keyboard home keys (f/j), use left fingers for a/s/d/f/g, and use right fingers for h/j/k/l • I know how to edit the style and effect of my text and images to make my document more engaging and eye-catching. For example, borders and shadows. • I know how to use cut, copy and paste to quickly duplicate and organise text.
4		• I know how to combine digital images from different sources, objects, and text to make a final piece of a variety of tasks: posters, documents, eBooks, scripts, leaflets. • I know how to confidently and regularly use text shortcuts such as cut, copy and paste and delete to organise text • I know how to use font sizes appropriately for audience and purpose. Use spell check and thesaurus including through Siri and other AI technology
5		• I know how to apply other useful effects to my documents such as hyperlinks. • I know how to import sounds to accompany and enhance the text in my document. • I know how to organise and reorganise text on screen to suit a purpose
6		• I know how to confidently choose the best application to demonstrate my learning. • I know how to format text to suit a purpose. • I know how to publish my documents online regularly and discuss the audience and purpose of my content.

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Data Handling

Year Group	Key Vocabulary	Apps and Links
EYFS	Chart, sort, data, count, list	Seesaw,
1	Columns, category, tally chart, pictograms, explain,	Seesaw, Pic Collage
2	Venn diagrams, carroll diagrams, bar charts, database, table	Seesaw, Pic Collage, Plickers Google Sheets, Google Forms, Excel, Numbers,
3	Table, column, row, cell, spreadsheet, graph,	Google Sheets, Google Forms, Excel, Numbers,
4	Formatting, questionnaire, Active Cell, Autofit, multiple choice, checkbox,	Google Sheets, Google Forms, Excel, Numbers, Kahoot, Blooket
5	Formula bar, Autosum, Autofill, value	Google Sheets, Google Forms, Excel, Numbers, Mentimeter
6	Range, =, fill, conditional formatting,	Google Sheets, Google Forms, Excel, Numbers,

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Data Handling		
Year Group	**NC Objectives**	**Knowledge Statements**
EYFS	Children recognise that a range of technology is used in places such as homes and schools. They select and use technology for particular purposes.	• I know how to identify a chart. • I know how to sort physical objects, take a picture and discuss what I have done. • I know how to present simple data on a digital device.
1	Co2/1.4 use technology purposefully to create, organise, store, manipulate and retrieve digital content.	• I know how to sort images or text into two or more categories on a digital device. • I know how to collect data on a topic. • I know how to create a tally chart and pictogram. • I know how to record myself explaining what I have done and what it shows me.
2		• I know how to sort digital objects into a range of charts such as Venn diagrams, carroll diagrams and bar charts using different apps and software. • I know how to orally record myself explaining what the data shows me. • I know how to create a branching database using questions

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Data Handling

Year Group	NC Objectives	Knowledge Statements
3	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.	• I know how to create my own sorting diagram and complete a data handling activity with it using images and text. • I know how to start to input simple data into a spreadsheet. • I know how to create a feelings chart exploring a story or character's feelings.
4		• I know how to create my own online multiple choice questionnaire. • I know how to input data into a spreadsheet and export the data in a variety of ways: charts, bar charts, pie charts. • I understand how data is collected.
5		• I know how to create and publish my own online questionnaire and analyse the results. • I know how to use simple formulae to solve calculations including =sum and other statistical functions • I know how to edit and format difference cells in a spreadsheet.
6		• I know how to write spreadsheet formula to solve more challenging maths problems. • I know how to create and publish my own online quiz with a range of media (images and video)

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Presentations, web design and eBook Creation

Year Group	Key Vocabulary	Apps and Links
EYFS	Record, image, digital, collage, move, resize, pinch	Seesaw
1	Labels, order, storyboard, sequence, spider diagram, text box, style	Seesaw, Pic Collage
2	Voice labels, import, tag, add to, right click, layout, format,	Seesaw, Pic Collage, Balloon Stickies +, Thinglink, Book Creator,
3	Media, interactive, audio, annotate, background, clip art, prototype, web page, timeline,	Balloon Stickies +, Google Sites, Book Creator, Keynote, Adobe Spark Page, Thinglink, Marvel,
4	Animation, design template, effects, multimedia, eBook, ePub, export, hyperlinks	Google Sites, Book Creator, Keynote, Powerpoint, Adobe Spark Page, Thinglink,
5	Blog, collaboration, share, , slide layout, slide show, transitions, embed, publish, instant alpha	Google Sites, Book Creator, Keynote, Powerpoint, Wakelet, Adobe Spark Page, Thinglink,
6	Placeholder, dropdown, navigation, homepage, footer, sidebar, HTML, URL, design, application	Google Sites, Book Creator, Keynote, Powerpoint, Wakelet, Adobe Spark Page, Thinglink,

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Presentations, web design and eBook Creation		
Year Group	**NC Objectives**	**Knowledge Statements**
EYFS	Children recognise that a range of technology is used in places such as homes and schools. They select and use technology for particular purposes.	• I know how to record my voice over a picture. • I know how to create a simple digital collage. • I know how to move and resize images with my fingers or mouse.
1	Co2/1.4 use technology purposefully to create, organise, store, manipulate and retrieve digital content.	• I know how to add labels to an image • I know how to order images to create a simple storyboard. • I know how to create a simple spider diagram. • I know how to sequence a series of pictures to explain my understanding of a topic.
2		• I know how to add voice labels to an image. • I know how to add a voice recording to a storyboard. • I know how to add speech bubbles to an image to show what a character thinks. • I know how to import images to a project from the web and camera roll • I know how to use some build in animations in presentation software

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Presentations, web design and eBook Creation		
Year Group	**NC Objectives**	**Knowledge Statements**
3	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.	• I know how to create an interactive comic with sounds, formatted text and video. • I know how to annotate an image with videos • I know how to create a simple web page. • I know how to design a simple app prototype. • I know how to create a simple digital timeline/mindmap
4		• I know how to create an interactive quiz eBook introducing hyperlinks. • I know how to create an eBook with text, images and sound. • I know how to create a presentation demonstrating my understanding with a range of media. • I know how to create a digital timeline/mindmap and include different media - sound and video.
5		• I know how to collaborate with peers using online tools, e.g. blogs, Google Drive, Office 365 • I know how to create and export an interactive presentation including a variety of media, animations, transitions and other effects. • I know how to create an interactive guide to a image by embedding digital content and publishing it online. • I know how to create a webpage and embed video.
6		• I know how to create a web site which includes a variety of media. • I know how to design an app prototype that links multimedia pages together with hyperlinks. • I know how to choose applications to communicate to a specific audience. • I know how to evaluate my own content and consider ways to improvements.

MrPICT.com Computing Progression Document

Animation		
Year Group	**Key Vocabulary**	**Apps and Links**
EYFS	Animation, character, record	Puppetpals, ChatterPix Kids,
1	Filters, stickers, scene	Puppetpals, ChatterPix Kids, I Can Animate, Seesaw,
2	Stop motion, ghosting, timing, cartoon	Puppetpals, ChatterPix Kids, I Can Animate, Seesaw,
3	Frame, framerate, layout, onion skinning, trim	Puppetpals, ChatterPix Kids, Animate Anything, Talkr, I Can Animate, iFunFace, Seesaw, Puppetmaster, Toontastic
4	3D, line draw, build in, build out, exposure, dynamic	Puppetpals, ChatterPix Kids, Animate Anything, Talkr, I Can Animate, iFunFace, Seesaw, Puppetmaster, Toontastic
5	Chroma Key, Flipbook, export, GIF, publish,	Puppetpals, ChatterPix Kids, Animate Anything, Talkr I Can Animate, iFunFace, Seesaw, Plotagon, Toontastic
6	Staging, aspect ratio, computer generated imagery (CGI) angles, overlay, claymation, cut scene	Puppetpals, ChatterPix Kids, Animate Anything, Talkr I Can Animate, iFunFace, Seesaw, Plotagon, Toontastic

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Animation		
Year Group	**NC Objectives**	**Knowledge Statements**
EYFS	Children recognise that a range of technology is used in places such as homes and schools. They select and use technology for particular purposes.	• I know how to animate a simple image to speak in role • I know how to create a simple animation to tell a story including more than one character.
1	Co2/1.4 use technology purposefully to create, organise, store, manipulate and retrieve digital content.	• I know how to add filters and stickers to enhance an animation of a character. • I know how to create an animation to tell a story with more than one scene. • I know how to add my own pictures to my story animation.
2		• I know how to create multiple animations of an image and edit these together. • I know how to create a simple stop motion animation. • I know how to explain how an animation/flip book works

MrPICT.com Computing Progression Document

Animation

Year Group	NC Objectives	Knowledge Statements
3	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.	• I know how to create animations of faces to speak in role with more life-like realistic outcomes. • I know how to improve stop motion animation clips with techniques like onion skinning. • I know how to code a simple animation
4		• I know how to take multiple animations of a character I have created and edit them together for a longer video. • I know how to use software to create a 3D animated story. • I know how to create flip book animation using digital drawings and export as a GIF or video • I know how to use line draw tool to create animations.
5		• I know how to record animations of different characters and edit them together to create an interview. • I know how to effectively use animation tools in presenting software to create animations. • I know how to add green screen effects to a stop motion animation.
6		• I know how to mix animations and videos recordings of myself to create video interviews. • I know how to plan, script and create a 3D animation to explain a concept or tell a story. • I can make an animated talking GIF of a cartoon character. • I know how to choose and create different types of animations to best explain my learning.

MrPICT.com Computing Progression Document

Video Creation		
Year Group	**Key Vocabulary**	**Apps and Links**
EYFS	Photography, video, record, camera roll, play, pause, microphone	Camera App Shadow Puppets Edu,
1	Voiceover, highlight, zoom, countdown, playback, delete, pause, rewind, fast forward.	Doink Greenscreen, Shadow Puppets Edu,
2	Teleprompter, pace, rate, effects, titles, Greenscreen, layer, masking, drag	Doink Greenscreen, iMovie, Shadow Puppets Edu, Adobe Spark Video,
3	Sequence, trim, cut, transition, trailer, close up, action shot, timeline	Doink Greenscreen, iMovie, Shadow Puppets Edu, Videorama, Apple Clips Explain Everything
4	Clips, media library, import, ken burns, subtitles, crop, overlay, adjust, playback, pan, tilt	Doink Greenscreen, iMovie, Shadow Puppets Edu, Videorama, Apple Clips Explain Everything
5	Split screen, cutaway, montage, fade,	Doink Greenscreen, iMovie, Shadow Puppets Edu, Videorama, Apple Clips Explain Everything
6	Picture in Picture,	Doink Greenscreen, iMovie, Shadow Puppets Edu, Videorama, Apple Clips Explain Everything

MrPICT.com Computing Progression Document

Video Creation		
Year Group	**NC Objectives**	**Knowledge Statements**
EYFS	Children recognise that a range of technology is used in places such as homes and schools. They select and use technology for particular purposes.	• I know the difference between a photography and video. • I know how to record a short film using the camera • I know how to record and play a film • I know how to watch films back
1	Co2/1.4 use technology purposefully to create, organise, store, manipulate and retrieve digital content.	• I know how to record a film using the camera app. • I know how to select images and record a voiceover. • I know how to highlight and zoom into images as I record.
2		• I know how to write and record a script using a teleprompter tool. • I know how to use tools to add effects to a video • I know how to begin to use green screen techniques with support

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Video Creation		
Year Group	**NC Objectives**	**Knowledge Statements**
3	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.	• I know how to sequence clips of mixed media in a timeline and record a voiceover • I know how to trim and cut film clips and add titles and transitions • I know how to independently create a green screen clip. • I know how to create my own movie trailer.
4		• I know how to add music and sound effects to my films • I know how to add animated titles and transitions • I know how to add simple subtitles to a video clip. • I know how to use confidently use green screen adding animated backgrounds.
5		• I know how to use cutaway and split screen tools in iMovie. • I know how to evaluate and improve the best video tools to best explain my understanding. • I know how to further improve green screen clips using crop and resize and explore more creative ways to use the tool - wearing green clothes and the masking tool.
6		• I know how to use the green screen masking tool with more than one character. • I know how to use picture in picture tools in iMovie. • I know how to add animated subtitles to my film to further enhance my creation. • I know how to create videos using a range of media - green screen, animations, film and image.

MrPICT.com Computing Progression Document

Photography and Digital Art

Year Group	Key Vocabulary	Apps and Links
EYFS	Photograph, digital, paint, capture	Camera, Mark up, Photo booth, Seesaw, Draw & Tell
1	Edit, drawing, cut, layer, mark up, erase,	Camera Mark up, Photobooth, Seesaw, Keynote, Pic Collage, Notes
2	Crop, filters, fill, export, JPEG, zoom, flash, undo	Camera, Mark up, Photobooth, Seesaw, Keynote, Pic Collage, Notes
3	Manipulate, brush size, transparent, instant alpha, PNG, framing,	Camera and Mark up, Notes, Seesaw, Keynote, Pic Collage, Sketches Pro, Paper
4	Brightness, contrast, resize, digital shapes, focus, artificial, natural, lighting	Camera and Mark up, Notes, Seesaw, Keynote Pic Collage, Sketches Pro, Paper
5	Photoshop, landscape, portrait,	Camera and Mark up, Notes, Seesaw, Keynote Pic Collage, Sketches Pro, Paper
6	Exposure,	Camera and Mark up, Notes, Seesaw, Keynote, Pic Collage, Sketches Pro Paper

MrPICT.com Computing Progression Document

Photography and Digital Art

Year Group	NC Objectives	Knowledge Statements
EYFS	Children recognise that a range of technology is used in places such as homes and schools. They select and use technology for particular purposes.	• I know how to take a photograph • I know how to take a photograph and use it in an app • I know how to use a painting app and explore the paint and brush tools
1	Co2/1.4 use technology purposefully to create, organise, store, manipulate and retrieve digital content.	• I know how to edit a photo with simple tools • I know how to use a paint/drawing app to create a digital image • I know how to begin to cut out an image to layer on another image.
2		• I know how to edit a photo (crop, filters, mark up etc) • I know how to select and use tools to create digital imagery - controlling the pen and using the fill tool • I know how to cut images with accuarcy to layer on other images.

MrPICT.com Computing Progression Document

Photography and Digital Art

Year Group	NC Objectives	Knowledge Statements
3	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.	• I know how to confidently take and manipulate photos • I know how to create a digital image using a range of tools, pens, brushes and effects • I know how to create transparent images with Instant Alpha
4		• I know how to enhance digital images and photographs using crop, brightness, contrast & resize • I know how to use shapes and drawing tools to create digital art. • I know how to draw a series of images and export as an animated GIF
5		• I know how to make a digital photo using camera settings • I know how to enhance digital photos and images using crop, brightness and resize tools • I know how to link and explain how to photoshop images and how this is used in the media • I know how to manipulate shapes to create more detailed digital art.
6		• I know how to edit a picture to remove items, add backgrounds, merge 2 photos • I know how to evaluate and discuss images explaining effects and filters that have been used to enhance the media. • I know how to use a 3D drawing app to create a realistic representation of world objects

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Augmented Reality and Virtual Reality

Year Group	Key Vocabulary	Apps and Links
EYFS	Scan, image, 360, digital image,	AR Makr, LEO AR Camera
1	Surroundings, objects, interact,	AR Makr, LEO AR Camera
2	Markers, Augmented Reality, trigger,	AR Makr, Thinglink, Keynote,
3	Field of view, Holograms, Virtual Reality, explore, slide size,	AR Makr, Thinglink, Keynote, EyeJack, Halo AR, AR Portal
4	Target image, recognition, panoramic,	AR Makr, Thinglink, Keynote, EyeJack, Halo AR, AR Portal
5	Markup,	AR Makr, Adobe Aero, Thinglink, Keynote, EyeJack, Merge Cube, AR Portal
6	ARKit and ARCore,	AR Makr, Adobe Aero, Thinglink, Keynote, EyeJack, Merge Cube, AR Portal

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Augmented Reality and Virtual Reality

Year Group	NC Objectives	Knowledge Statements
EYFS	Children recognise that a range of technology is used in places such as homes and schools. They select and use technology for particular purposes.	• I know how to scan a QR code. • I know how to explore a 360 image. • I know how to talk about AR objects in my class
1	Co2/1.4 use technology purposefully to create, organise, store, manipulate and retrieve digital content.	• I know how to explore an interactive 360 image. • I know how to scan a trigger image to begin a AR experience. • I know how to pretend to interact with AR objects.
2		• I know how to draw my own 360 image and explore it in VR. • I know how to bring objects into my surroundings using Augmented Reality. • I know how to create my own QR code.
3	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.	• I know how to create my own digital 360 image and explore it in VR • I know how to create my own images and bring it into my surroundings
4		• I know how to create my own 360 video. • I know how to use the camera to create a 360 image. • I know how to add multiple objects into my surroundings through AR to explain a concept.
5		• I know how to create an animated object and bring it into my surroundings through AR • I know how to create an AR experience using objects I have created to explain a concept.
6		• I know how to create an interactive VR experience. • I know how to create an interactive poster using AR • I know how to explain how VR and AR works.

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Sound		
Year Group	**Key Vocabulary**	**Apps and Links**
EYFS	Record, sound, microphone, echo,	Seesaw, Voice Memos, Keezy,
1	Sequence, instruments, short, long, effects	Seesaw, Voice Memos, Keezy,
2	Sound effects, loops,	Seesaw, Voice Memos, Garageband, Anchor, Keezy,
3	Input, output, selection, mix	Seesaw, Voice Memos, Garageband, Anchor, Keezy,
4	Podcast, clipping, crossfade, fade, gain,	Seesaw, Voice Memos, Garageband, Anchor, Keezy,
5	Channel, feedback, chorus, compose	Seesaw, Voice Memos, Garageband, Anchor, Keezy,
6	Compression, reverb, BPM,	Seesaw, Voice Memos, Garageband, Anchor, Keezy,

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Sound

Year	NC Objectives	Knowledge Statements
EYFS	Children recognise that a range of technology is used in places such as homes and schools. They select and use technology for particular purposes.	• I know how to record sounds with different resources • I know how to find ways to change your voice (tube, tin can, shouting to create an echo) • I know how to record sounds/voices in storytelling and explanations
1	Co2/1.4 use technology purposefully to create, organise, store, manipulate and retrieve digital content.	• I know how to create a sequence of sounds (instruments, apps/software) • I know how to explore short and long sounds. • I know how to record my voice and add different effects.
2		• I know how to create a musical composition using software • I know how to record my own sound effects. • I know how to record my voice over a compositions to perform a song.
3	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.	• I know how to create and edit purposeful compositions using music software to create mood or a certain style • I know how to experiment with live loops to create a song.
4		• I know how to edit sound effects for a purpose. • I know how to create a simple four chord song following the correct rhythm. • I know how to record a radio broadcast or audiobook.
5		• I know how to add voice over and edit sound clips (volume, pitch, fade, effect) to create a podcast. • I know how to create a remix of a popular song.
6		• I know how to add voice over and edit sound clips (volume, pitch, fade, effect) to use in a film or radio broadcast (podcast) • I know how to compose a soundtrack that can be added to a film project.

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Digital Literacy/ESafety - Education For a Connected World Objectives EYFS and KS1

Year Group	Key Vocabulary	Apps and Links
EYFS	Online, offline, communicate, internet, information, feelings, rules	ProjectEvolve.com MrPICT.com
1	Trust, permission, video call, kind, respect, trusted adult, search engines, Google, personal information, password, accounts,	ProjectEvolve.com MrPICT.com
2	Online gaming, sharing, pressure, accept, consent, bullying, home, forward, links, tabs, sections, Siri, untrue, wellbeing, private, AI, comments,	ProjectEvolve.com MrPICT.com
3	Identify, represent, avatar, likes, trusting, uncomfortable, cyberbullying, accurate, autocomplete, belief, opinion, fact, mood, engaged, age restrictions, data, copyright, digital footprint,	ProjectEvolve.com MrPICT.com
4	Interact, livestream, healthy, unhealthy online behaviours, analyse, fake news, in-app purchases, pop-ups, bots, distraction, screen time, geolocation, adware, cookies,	ProjectEvolve.com MrPICT.com
5	Copied, modified, altered, choices, responsible, emojis, memes, social media, perceive, childlike, block, abusive, sceptical, trustworthy, adverts, validity, reliability, scams, disinformation, echo chamber,	ProjectEvolve.com MrPICT.com
6	Inappropriate, stereotypes, gender, screen grabs, boundaries, unintended consequences, inappropriate images, anonymity, digital personality, URL, profile, ad targeting, persuasive design, phishing, terms and conditions, encryption	ProjectEvolve.com MrPICT.com