PINNER WOOD COMPUTING LONG TERM PLAN



Autumn 1 Autumn 2 Summer 2 Computing is not required to be taught explicitly in the EYFS curriculum, however, technology and skills are interwoven through the curriculum targeting the statements below. Remember rules without needing and adult to remind them. Apps/technology used: Nursery Personal, Social and (Three and Emotional **Beebots** Four-year-**Development** Tap a Tune **Top Marks – Shapes/Numbers** - Match their developing physical skills to tasks and activities in the olds) **Physical Purple Mash - Art** setting. **Development Reading Eggs** Maths Seeds - Explore how things work. **Understanding the Pic Collage** World **Google Earth** Personal, Social and - Show resilience and perseverance in the face of a challenge **Photography in Roleplay** - Know and talk about the different factors that support their overall **Exploring Ipods/ipads/cameras** Emotional Reception health and wellbeing: sensible amounts of 'screen time' Puppet Edu -> Video creation/Oracy Development - Develop their small motor skills so that they can use a range of tools Physical competently, safely and confidently Development - Explore, use and refine a variety of artistic effects to express their **Expressive Arts and** ideas and feelings. Design - Be confident to try new activities and show Managing Self ELG Personal, Social and independence, resilience and perseverance Emotional in the face of challenge. **Development** - Explain the reasons for rules, know right from wrong and try to behave accordingly. - Safely use and explore a variety of Creating with **Expressive Arts and** Materials materials, tools and techniques, Design experimenting with colour, design, texture, from and function. Additional • I can take a photograph • I can take a photograph and use it in an app lessons -• I can use a painting app and explore the paint and brush tools Photography

PINNER WOOD COMPUTING LONG TERM PLAN





Year 1	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Topic	Programming: Robot Maze Game	Sound: Podcasting	Programming: Animations in Scratch	Animation: Cartoon	Video: Chatterpix	Video: Shadow Puppets
Information Technology I can statements	I understand the sequence of algorithms is important I know how to debug simple algorithms 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	I can write and record a script using a teleprompter tool. • I can record my voice and add different effects.	I understand what algorithms are I know how to write simple algorithms I understand the sequence of algorithms important I know how to debug simple algorithms Coding/Programming 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	I know how to create a simple animation to tell a story including more than one 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.	I know how to animate a simple image to speak in role I know how to add filters and stickers to enhance an animation of a character.	 I know how to select images and record a voiceover. I know how to highlight and zoom into images as I record.
Key vocab	Algorithm, sequence, order, bug, fix, precise, Digital, program, follow, code, bugs, fix, order, ScratchJr	Sequence, instruments, short, long, effects	Columns, category, tally chart, pictograms, explain	Upload, cut out, select, pinch, resize, drag, record, pause, stop, save, export.	Upload, cut out, select, pinch, resize, drag, record, pause, stop, save, export.	Search, select, rearrange, title, text, record, pause, undo, zoom, pan, highlight.
Online safety I can statements	Use technology purposefully to create, organise, store, manipulate and retrieve digital content	Use technology safely and respectfully in the context of searching for appropriate images online.	Use technology safely and respectfully in the context of learning about the SMART rules for Internet safety.	Use technology safely and respectfully in the context of keeping personal information safe.	Recognise common uses of information technology beyond school in the context of sending an email.	Use technology safely and respectfully in the context of guiding others to make the right choices online.
	To create, name and date my digital creative work.	To safely search for images online.	To understand how to communicate safely online.	To understand what personal information I need to keep safe.	To explore how to use email to safely communicate.	To apply my online safety knowledge to help others make good choices online.
Key vocab	Trust, permission, video call, kind, respect, trusted a		n, password, accounts,			
Additional lessons –	I can confidently type words quickly and correctly on a digital device. I can use the space har to make space and to delete letters/words I can make a new line using enter/return I can dictate into a digital device more accurately and with punctuation Data: I know how to sort text into two or more categories on a digital device. I know how to create a tally chart and pictogram.					
	I know how to record myself explaining what I have					
Key vocab	Space Bar, delete, return key, enter, mouse, trackpa	d arrow keys cursor select sort background da	ta emoji image edit shane tahle resize drag s	2//0		



Year 2	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Торіс	Animation: Stop Motion Animation	Presentation: Thinglink	Programming: Knock Knock Joke Scratch Jnr	Photo: Photoshopping	Video Creation: Masking Storytime	Programming: My Robot Helper
Information Technology I can statements	I know how to create a simple stop motion animation. I know how to explain how an animation/flip book works 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	I know how to add voice labels to an image.	I understand decomposition is breaking objects/processes down I know how to debug algorithms 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	I know how to edit a photo with simple tools I know how to begin to cut out an image to layer on another image. I know how to cut images with accuracy to layer on other images.	I know how to use tools to add effects to a video I know how to begin to use green screen techniques and masking with support	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 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
Key vocab	Stop motion, ghosting, timing, cartoon Record, camera, layers, import, image, mask, timeline, erase, resize, trim,	Upload, image, add, tag, label, audio, media, copy, save.	Markers, Augmented Reality, trigger Decomposition, debug, reason, detail, breakdown, task, Precise, logical reasoning, prediction, debug, sequence	Upload image, edit, filter, cutout, add, remove, resize, export	Record, camera, layers, import, image, mask, timeline, erase, resize, trim,	Decomposition, debug, reason, detail, breakdown, task, Precise, logical reasoning, prediction, debug, sequence
Online safety I can statements	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 in the context of looking at how much information we can find out about a person online.	Recognise common uses of information technology beyond school. Use technology safely and respectfully in the context of finding relevant information about a destination using keywords.	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 in the context of identifying appropriate websites for children.	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 in the context of reviewing websites.	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 in the context of identifying cyberbullying.	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 in the context of answering questions about online safety and scenarios to complete a game.
	• To understand that the information I put online leaves a digital footprint.	 To use keywords in an online search to find out about a topic. 	• To recognise whether a website is appropriate for children.	 To rate and review informative websites. 	• To be able to identify kind and unkind behaviour online.	 To apply our knowledge of safe and sensible online activities to different situations.
Key vocab	Online gaming, sharing, pressure, accept, consent, but		ntrue, wellbeing, private, AI, comments,			
Additional lessons –	 I can use the space bar only once between words and use touch to navigate to words letter to edit I can copy and paste images and text I can copy and paste images and text I can add images alongside text in a word processed document. I can dictate longer passages into a digital device with accurate punctuation Data: 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. Cut, copy, paste. Caps Lock, Insert, Image, Save, clipboard, editing, header, highlight 					



Year 3	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Торіс	Coding: Animations in Scratch	Data – Story Graphs	Video: iMovie Voiceover	AR – 360 images	Coding: Crumble powered historical scenes	Presentation: Book Creator
I can statements	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 I know how to create a program I know how to create a sequence of code I know how to evaluate my program	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 create a feelings chart exploring a story or character's feelings.	I know how to sequence clips of mixed media in a timeline and record a voiceover	I know how to create a presentation demonstrating my understanding with a range of media. I know how to create my own digital 360 image and explore it in VR	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 create 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	I know how to create an interactive comic with sounds, formatted text and video.
Key vocab	Abstraction, information, relevant, pattern, same, different, complex, sequence, code, design, programming language, Scratch	Graph, axis, line, shape, background, upload, record, label, pen tool.	Project, media, image, video, timeline, split, record, replay, soundtrack, volume, filter.	Table, column, row, cell, spreadsheet, graph	Abstraction, information, relevant, Sequence, inputs, outputs, code, design, programming language, Crumble	Project, template, layout, multimedia, format, import, media, background, audio recording,
Online safety I can statements Additional lessons –	Use technology safely, respectfully and responsibly; recognise acceptable and unacceptable behaviour; identify a range of ways to report concerns about content and contact in the context of recognising cyberbullying. • To know what cyberbullying is and how to address it	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 in the context of identifying advertisements online. • To understand how websites use advertisements to promote products. use left fingers for a/s/ d/f/g, and use right fingers	Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact in the context of creating passwords and using privacy settings. • To create strong passwords and understand privacy settings.	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 technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact in the context of sending and receiving emails safely. • To safely send and receive emails.	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 technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact in the context of exploring the different ways we communicate online. • To explore different ways children can communicate online.	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 in the context of planning a party online. • To use knowledge about online safety to plan a party online.
Key vocab	I can edit the style and effect of my text and images i I can use cut, copy and paste to quickly duplicate and Computer Networking: Understand that the computers in a school are conne Understand why computers are networked Touch type. Edit, format, font, size, borders, shadow:	to make my document more engaging and eye-cal d organize text ected together in a network	tching. For example, borders and shadows.			



Year 4	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Topic	Coding Crumble Powered Robot Orchestra	Presentation - Posters	Data Handling – Online Questionnaire	Video Creation – Adobe Spark Video	Coding: Makey Makey Games Controller	Sound – Movie Soundtrack
Key Vocab	Logical reasoning, design, algorithmic thinking, selection, repeat, input, output, loop, forever loop, count controlled loop, selection, condition,	Import, resize, font, effects, adjust, layout, opacity, transparent, align, style, spacing	Cut, copy, paste, online, questionnaire, formatting, multiple choice, checkbox, share.	Slide, video, trim, volume, icon, search, record, order, soundtrack, layout, split screen.	Logical reasoning, design, algorithmic thinking, selection, repeat, Repetition, loop, forever loop, count controlled loop, selection, condition, systematic	Record, auto play, chords, count, track, loop, bars, section, export, countdown.
Online safety	Use technology safely, respectfully and	Use search technologies effectively,	Use technology safely, respectfully and	Use technology safely, respectfully and	Use technology safely, respectfully and	Use technology safely, respectfully and
I can statements	responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact in the context of thinking about how online messages can be hurtful. • I can identify how a message can hurt someone's feelings. • I can say how I should respond to a hurtful message online.	appreciate how results are selected and ranked, and be discerning in evaluating digital content in the context of using search engines accurately. • I can use a search engine accurately.	responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact in the context of finding out about online plagiarism. • I understand the term 'plagiarism' and how to avoid it.	responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact in the context of creating their own sample online game account, highlighting information which is acceptable to include. • To create a safe online profile.	responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact in the context of giving examples of how to be a good digital citizen. • To explain how to be a responsible digital citizen.	responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact in the context of creating an online safety character. • To create an online safety superhero character.
Key vocab	Interact, livestream, healthy, unhealthy online behav	viours, analyse, fake news, in-app purchases, pop-	ups, bots, distraction, screen time, geolocation, a	dware, cookies,	•	
Additional lessons –	I can combine digital images from different sources, objects, and text to make a final piece of a variety of tasks: posters, documents, eBooks, scripts, leaflets. Confidently and regularly use text shortcuts such as cut, copy and paste and delete to organise text Use font sizes appropriately for audience and purpose. Use spell check and thesaurus including through Siri and other AI technology Networks: Understand the Internet is a worldwide network Understand the difference between the Internet Understand the difference between the Internet and the world wide web					
	I know how to use confidently use green screen addi	ng animated backgrounds.				
Key vocab	Group, crop, source, object, posters, documents, eBo	ooks, scripts, leaflets. CTRL, spell check, thesaurus	, record, internet, router, data, web page, subma	rine cable		



Year 5	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2	
Торіс	Programming – Platform Game in Scratch	Video Creation – Video Green screen News Report	AR and VR - Eyejack	Programming – Quizzes in Scratch	Animation – Character Interviews	Sound – Four Chord Remix	
Information Technology I can statements	 I know how to use logical reasoning to explain how a variety of algorithms work I know how to evaluate the effectiveness of algorithms 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 use conditions in repetition commands I know how to create programs that control or simulate physical systems I know how to evaluate my work and identify errors 	 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. 	I know how to create an interactive poster using AR	 I know how to solve problems by decomposing them into smaller parts I know how to use selection in algorithms 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 	 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 record animations of different characters and edit them together to create an interview. 	 I know how to create a simple four chord song following the correct rhythm. I know how to create a remix of a popular song. 	
Key vocab	Evaluation, effectiveness, complexity, data, prediction, condition, data, memory, variables, value, initialization, control, simulate, physical system	Cutaway, split screen, chroma key, crop, resize, teleprompter, masking, timeline, import, trim.	Crop, brightness, resize, target image, overlay, upload, import, export, augmented, scan	Evaluation, effectiveness, complexity, data, prediction, condition, Data, memory, variables, value, initialization,	Import, export, trim, clips, media library, subtitles, timeline	Chorus, chords, tempo, compose, record, metronome, BPM (beats per minute), remix, export.	
Online safety I can statements	Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact in the context of identifying and avoiding spam emails. • To identify spam emails and what to do with them.	Use technology safely, respectfully and responsibly; recognise acceptable/ unacceptable behaviour; identify a range of ways to report concerns about content and contact in the context of citing the work of others. • To write citations for the websites I use for research.	Use technology safely, respectfully and responsibly; recognise acceptable/ unacceptable behaviour; identify a range of ways to report concerns about content and contact in the context of following rules to help create strong passwords. • To create strong passwords.	Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content in the context of finding out how photos can be altered and presented as reality online. • To recognise when, why and how photographs we see online may have been edited.	Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact in the context of planning a story about the consequences of not following online safety rules. • To apply online safety rules to real-life scenarios.	Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact in the context of creating a comic strip about the consequences of not following online safety rules. • To apply online safety rules to real-life scenarios.	
Key vocab	Copied, modified, altered, choices, responsible, emoj	i's, memes, social media, perceive, childlike. bloci	k, abusive, sceptical, trustworthy, adverts. validity	, reliability, scams, disinformation, echo chamber.			
Additional lessons –	 I can start to apply other useful effects to my documents such as hyperlinks. I can import sounds to accompany and enhance the text in my document. I can organise and reorganize text on screen to suit a purpose Search Engines Understand that web spiders index the web for search engines Appreciate how pages are ranked in a search engine 						
Key vocab	Import, export, hyperlinks, animate, build in, build ou	it, italics, bold, arrange, bullets, search engine, sp	iders, index, ranked, ranking algorithm, keyword				



Year 6	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Торіс	Programming - 3D Lettering	Presentation – App Prototype	AR and VR – Interactive VR Thinglink - Heart	Programming Game Project in Scratch	Animation – Plotagon Animation -	Video Creation – Green screen Special
					Treason story	Effects - Leavers
Information Technology	 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 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 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 improve. 	I know how to create an interactive VR experience. I know how to explain how VR and AR works.	 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 I know how to use a range of sequence, selection and repetition commands to implement my design I know how to create procedures to hide complexity in programs I know how to critically evaluate my work and suggest improvements 	I know how to plan, script and create a 3D animation to explain a concept or tell a story. I know how to choose and create different types of animations to best explain my learning.	I know how to create videos using a range of media – green screen, animations, film and image.
Key vocab	Evaluation, effectiveness, complexity, data, prediction, data, memory, value, initialization,	Prototype, transition, animation, layout, duplicate, navigation, homepage, instant alpha,	Embed, VR, 360, aspect ratio, upload, trim, record, export,	Generalization, pattern, reuse, modify, remix, critical, procedure, abstraction, conditional loop, logic, operator, implement	Staging, aspect ratio, computer generated imagery (CGI) angles, overlay, cut scene	Layer, trim, edit, export, special effects, voice over, import, soundtrack, chroma key, crop
Online safety	Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable	Use technology safely, respectfully and responsibly; recognise acceptable/	Use technology safely, respectfully and responsibly; recognise	Use technology safely, respectfully and responsibly.	Use technology safely, respectfully and responsibly; recognise	Use technology safely, respectfully and responsibly; recognise acceptable/
l can statements	behaviour; identify a range of ways to report concerns about content and contact in the context of comparing cyberbullying to bullying in person and developing strategies for dealing with online bullying. • I can find similarities and differences between in person and cyberbullying. • I can identify good strategies to deal with cyberbullying.	unacceptable behaviour; identify a range of ways to report concerns about content and contact in the context of identifying secure and unsecure websites. • I can identify secure websites by identifying privacy seals of approval.	acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact in the context of identifying information that is safe and unsafe to share with online friends. • I understand the benefits and pitfalls of online relationships. • I can identify information that I should never share.	Be discerning in evaluating digital content. Children will work in the context of evaluating media aimed at boys and girls. • I can identify how the media play a powerful role in shaping ideas about girls and boys.	acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact in the context of identifying how to behave in a range of online scenarios. • I can apply my online safety knowledge to my online activities.	unacceptable behaviour; identify a range of ways to report concerns about content and contact in the context of creating an online safety quiz. • I can use my knowledge of online safety to create a multiple choice quiz.
Key vocab	Inappropriate, stereotypes, gender, screen grabs, bo	undaries, unintended consequences, inappropria	te images, anonymity, digital personality, URL, pro	ofile, ad targeting, persuasive design, phishing, terms	and conditions, encryption	
Additional lessons –	I can confidently choose the best application to demonstrate my learning. I can format text to suit a purpose. I can publish my documents online regularly and discuss the audience and purpose of my content HTML Networks Understand what HTML is and recognize HTML tags Know a range of HTML tags and remix a web page Create a webpage using HTML					
Key vocab	Alignment, application, tabs, toolbar, build order, lay	out, shift key, PDF, columns, graphics, HTML (Hyp	perText Markup Language), opening tag, closing ta	ag, code		