Reception: Early Learning Goal Statement (Old EYFS framework)

Children recognise that a range of technology is used in places such as homes and schools. They select and use technology for particular purposes.

Term	Unit	Skills to be covered What should the children be able to do?	Knowledge to be covered What should the children know?	Suggested activities and resources
Autumn	Technology in our lives.	• I can operate simple equipment (camera, microphone, phone, cd player). • I can take photographs of things in the environment that I find interesting.	• I am beginning to recognise how technology is used in different jobs e.g. walkie talkies, phones, computers. • I am beginning to know how technology helps us with our learning.	Technology in continuous provision – computer, phone, till, hoover, washing machine, camera, video camera, tablets, microwave. Naughty Bus photographs – Taking photographs of Naughty Bus on an adventure – can they open the app, frame and look back at their photo?
	Handling data	• I can use technology to collect information, including photos, video and sound.	• I know that data can be shown in different ways.	
Spring	E-Safety	• I can follow simple E-Safety rules. • I can talk to a trusted grown-up if I am worried when I am using technology.	• I know why I need to stay safe when I am using technology • I know what to do and who to talk to if I am feeling worried when I am using technology.	Smartie the penguin Hector's world CEOP resources
	Programming	• I can follow simple instructions. • I can give simple instructions. • I can press the correct buttons on a beebot to make it move forwards and backwards.	• I understand cause and effect e.g. the result of giving an instruction.	Beebots Daisy the dino
Summer	Multi-media	• I can use a simple computer program to draw a picture. • I can use a simple computer program to label a picture. • I can use a keyboard to enter text.	• I know how to open a simple program. • I know which keys to press to write simple words and sentences.	2Simple – 2Publish – drawing and writing a simple sentence about visit to the farm.

	Technology in our lives.	• I can operate simple equipment (camera, microphone, phone, cd player). • I can take photographs of things in the environment that I find interesting. • I can record a video.	• I know how to locate a photograph I have taken. • I know how to find the program to record a video. • I know how to watch a video I have recorded.	Photographs of life cycle – frogs, chicks, butterflies. Transition video – recording all about Year 1 for transition. Recording all about Reception for new starters.

Year 1

Term	Unit	Skills to be covered What should the children be able to do?	Knowledge to be covered What should the children know?	Vocabulary	Mastery
Autumn	E-Safety	• I can identify rules to keep myself safe and healthy when using technology in and beyond the home • I can recognise an age-appropriate website. • I can tell an adult when I see something unexpected or worrying online.	• I know why I need a private password. • I know what personal information is. • I know why it is important to be kind and polite.	*Safely, responsibly, computer, technology*	***Task:*** *list some of the things that they use the internet for and write a short set of rules for when they are accessing them outside of school.* ***Task:*** *Can incorporate top tips for staying safe online into a roleplay*
	Coding	• I can give instructions to my friend and follow their instructions to move around. • I can describe what happens when I press buttons on a beebot. • I can press the buttons in the correct order to make a beebot do what I want. • I can begin to predict what will happen for a short sequence of instructions.	• I know and use the term debug.	*Bee-Bot, Forwards, backwards, turn, clear, go,* commands, *Instructions, directions, left, right, plan, algorithm, program, route*	***Task:*** *Challenge by starting the Bee-Bot child facing away from the goal* ***Task:*** *Explain the shortest route? What about the longest route possible?*

		• I can identify rules to keep us safe and healthy when we are using technology in and beyond the home			
Spring	Handling data	• I can sort different kinds of information. • I can describe objects using labels • I can add information to a pictograph and talk about what I have found out.	• I know that data can be shown in different ways.	*Object, label, group, search, image, property, colour, size, shape, data set, value, more, less, most, fewest, same*	***Task:*** *Should be encouraged to use many animals in their database, sorting the data in the most efficient way possible (i.e., using the fewest number of questions).*
	Multi-media	• I can be creative with different technology tools. • I can recognise keys on a keyboard • I can identify the toolbar and use bold, italic, and underline	• I know how to save information and that it is stored on the computer.	*Word processor, keyboard, keys, letters, type, numbers, space, backspace, text cursor, capital letters, toolbar, bold, italic, underline Mouse, select, Undo, redo, font, format*	***Task:*** *Use multiple Clipart files and investigate the other tools available in paintz.app*
Summer	Coding	• I can predict what will happen for a short sequence of instructions. • I can use software/apps to create movement and patterns on a screen. • I can spot mistakes in an algorithm.	• I know and use the term debug. • I know which commands move a sprite	*ScratchJr, Mouse-Bot, command, sprite, compare, programming, programming area, block, joining, start block, run, program, programming area, background, delete, reset, algorithm, predict*	***Task:*** *Child to create their own buggy algorithms (and the correct answer)*
	Technology in our lives	• I can use the keyboard or a word bank on a device to enter text. • I can use an input device	• I can recognise the ways we use technology in our classroom. • I can recognise the ways that technology is used in my home and community. • I can begin to identify some of the benefits of using technology. • I can identify a computer and its main parts	*Technology, Computer, mouse/trackpad, keyboard, screen, click, double-click, drag, draw, shift, space bar, capital letter, full stop*	***Knowledge:*** *Recognise the difference between technology and information technology, explaining in detail the differences.* ***Questioning:*** *Explain how a piece of*

					technology changes the way we live our lives.

Year 2

Term	Unit	Skills to be covered What should the children be able to do?	Knowledge to be covered What should the children know?	Vocabulary	Mastery
Autumn	E-Safety	• I can use rules and guides to help use information technology responsibly	• I know why I need to keep my password and personal information private. • I can describe the things that happen online that I must tell an adult about. • I can talk about why I should go online for a short amount of time. • I can talk about why it is important to be kind and polite online and in real life. • I know that not everyone is who he or she says they are on the Internet.	*Cyber bully, password, personal, private, netiquette*	***Role:*** *E-Safety class monitor. Member(s) of the class who is an e-safety expert(s)* ***Task:*** *Independently generate a child friendly guide of how to use the internet safely.*
	Coding	• I can give instructions to a peer (Forwards, backwards, turn, etc.) and physically follow their instructions. • I can program a beebot/probot to do a particular task. • I can look at an algorithm and predict what will happen. • I can watch a program execute and spot where it goes wrong so that I can debug it.		*Instruction, sequence, clear, unambiguous, algorithm, program, sequence, order, command, prediction, design, route*	***Task:*** *Explain their code choices as they progress through the tasks and to use loops in their code.*
Spring	Handling data	• I can record data in a tally chart • I can make and save a chart or graph using the data I collect. • I can talk about the data that is shown in my chart or graph.	• I know about the different ways I use technology to collect information, including a camera, microscope or sound recorder. • I am starting to understand a branching database. • I could tell you what kind of information I could use to help me investigate a question	*More than, less than, most, least, organise, data, object, tally chart, votes, total, Pictogram, enter, count, common, explain, attribute, same, different*	***Task:*** *Child to independently complete their own data set and use technology to analyise. This may be completed in a cross curriculuar manner.*

	Multi-media	• I can use technology to organise and present my ideas in different ways. • I can recognise what devices can be used to take photographs • I can save and open files on the devices I use.	• I can tell you about information technology that will help me to share my work with others.	*Device, camera, photograph, capture, image, digital, format*	***Questioning:*** *Why did they take the photo from that angle? Is this one better than another? Could they look at three photos of the same object and suggest which one they liked more?*
Summer	Coding	• I can look at an algorithm and predict what will happen. • I can watch a program execute and spot where it goes wrong so that I can debug it. • I can program Scratch Jr to do a particular task. • I can use Scratch Jr to make objects move.		*Sequence, command, program, run, start, outcome, blocks, predict, sprite, algorithm, design, build, match, evaluate*	***Knowledge:*** *Child can efficiently read and write an algorithm and explain the affects of each block.* ***Task:*** *Rewrite a piece of code to have the same outcome. Child should be able to independently sequence a range of blocks to achieve the same outcome. They should recognise the most efficient sequence.*
	Technology in our lives	• I can identify the benefits of using technology, including finding information, creating and communicating. • I can talk about the differences between the Internet and things in the physical world.	• I can tell you why I use technology in the classroom. • I can tell you why I use technology in my home and community. • I am starting to understand that other people have created the information that I see and use on the internet.	*Technology, Information technology, computer, barcode, scanner/scan*	***Knowledge:*** *Child should be able to comment on the benefits of a range of technology including less familiar systems.* ***Task:*** *Independently explain the benefits and disadvanatges of a piece of technology and comment how it affects our way of seeing and experiencing the world.*

Year 3

Term	Unit	Skills to be covered What should the children be able to do?	Knowledge to be covered What should the children know?	Vocabulary	Mastery
Autumn	E-Safety	• How to create a secure password to protect my personal information. • Recognising how to use the safety features of websites and how to report concerns. • Recognise age-appropriate websites and games and how to choose the amount of time spent on the internet. • Use search tools to find and use appropriate websites.	• Understand why protecting my identify is important and the risk of oversharing. • Children should be able to recall the steps required should an unexpected, worrying, or distressing event take place online. • Children should know age classification. E.g. PEGI, BBFC etc.	*Cyber bully, password, personal, private, netiquette, appropriate, concern*	***Role:*** *E-Safety class monitor. Member(s) of the class who is an e-safety expert(s)* ***Task:*** *Can list online incidents that have affected their emotions and can begin to suggest strategies to deal with such issues* ***Questioning:*** *Can include more than four top tips to stay safe on social media platforms.*
	Coding	• Using repeat commands to simplify a program. • Detect problems with an algorithm which could result in unsuccessful programming. • To start a program in different ways	• Children should how to login into Scratch, access their and others work and how to connect coding blocks. • Know how to navigate Scratch and begin to recognise where to find coding blocks based on categories. • I can identify the objects in a Scratch project (sprites, backdrops)	*Scratch, programming, blocks, commands, code, sprite, costume, stage, backdrop, motion, sequence, design, algorithm, bug, debug*	***Knowledge:*** *independently access Scratch and recognise where and how to locate required coding blocks* ***Skill:*** *child creates efficient algorithms using repeat blocks.* ***Skill:*** *child can identify and correct errors in code, explaining the bug.*
Spring	Handling data	• Understand how to search ready-made databases to answer questions. • Understand how to add data to a database. • Understand how to create a branching database. • Compare the information shown in a pictogram with a branching database	• Know when databases are useful and give suggestions as to how else they could be used.	*Attribute, value, questions, table, objects, Branching database, database, attribute, value, questions, objects, equal, even, separate*	***Task:*** *child to create their own list showing the advantages and disadvantages of paper vs. computerised databases.*

	Multi-media	• Combine a mixture of text, graphics, and sound within an animation	• To explain that animation is a sequence of drawings or photographs	*Animation, flip book, Setting, character, events, stop-frame animation, onion skinning, consistency*	***Task:*** *child should incorporate music and sound effects into their video.* ***Task:*** *child should include lots of transitions and text on screen*
Summer	Coding	• I can program movement • Recognise and debug errors in code • Using efficient methods to code ('repeat') to simplify a program • I can identify a way to improve a program	• Children should how to login into Scratch, access their and others work and how to connect coding blocks. • Know how to navigate Scratch and begin to recognise where to find coding blocks based on categories. • I can identify the objects in a Scratch project (sprites, backdrops)	*Logic, resize, error, Scratch, programming, blocks, commands, code, sprite, costume, stage, backdrop, motion, sequence, design, algorithm, bug, debug*	***Knowledge:*** *independently access Scratch and recognise where and how to locate required coding blocks* ***Skill:*** *child creates efficient algorithms using repeat blocks.* ***Skill:*** *child can identify and correct errors in code, explaining the bug.*
	Technology in our lives		• Understand how information technology functions and briefly explain its purpose. • Know how a computer network can be used to share information • To identify input and output devices • To recognise how digital devices can change the way we work • To recognise that a computer network is made up of several devices	*Digital device, input, output, process, program, Connection, network, network switch, server, WAP*	***Task/knowledge:*** *Explain clearly what a network is and why they are useful, supported using appropriate images and layout.*

Year 4

Term	Unit	Skills to be covered What should the children be able to do?	Knowledge to be covered What should the children know?	Vocabulary	Mastery
Autumn	E-Safety	• How to comment positively and respectfully online • Children should question the reliability of information from the internet and develop strategies to test the reliability. • Understand how to create a secure password to protect personal information.	• Recognise the dangers of downloading files from the Internet. • Recognise how a digital footprint may affect them online and offline • Children should be able to recall the steps required should an unexpected, worrying or distressing event take place online.	*Digital footprint, download, respect, reliable, Cyber bully, password, personal, private, netiquette, appropriate, concern*	***Role:*** *E-Safety class monitor. Member(s) of the class who is an e-safety expert(s)* ***Task:*** *Create video scripts or guides to showcase examples of safe and respectful behaviour.*
	Coding	• Use an efficient procedure to simplify a program. • Recognise and correct errors in a piece of code. • Children should access Scratch coding and accurately use 'repeat' blocks to simplify a piece of code.	• Know how to navigate Scratch and begin to recognise where to find coding blocks based on categories.	*Scratch, programming, sprite, blocks, code, loop, repeat, value, forever, costume, modify, algorithm, duplicate, debug, refine, evaluate*	***Knowledge/task:*** *child should have a greater understanding of how the sprites interact with one another. Ask them to open up a blank Scratch project and try out different blocks to see if they can get a similar response.*
Spring	Handling data	• Organise data in different ways. • Plan, create and search a database to answer a question. • To use a digital device to collect data automatically • I can talk about the data that I have captured	• I know how to accurately input data into a database and why this is useful. • I can explain the benefits of using a data logger	*Data, Input device, sensor, data logger, analyse, import, export, conclusion*	***Knowledge:*** *independent collection, evaluation and presenting of data and information*
	Multi-media	• I can identify digital devices that can record video and sound and play it back • I can use editing tools to arrange sections of audio • Use a combination of media to create a podcast	• I can explain that digital recordings need to be exported to share them.	*Audio, record, playback, microphone, speaker, headphones, input, output, record, playback, start, pause, stop, podcast, selection, open,*	***Knowledge:*** *Child should confidently grasp video/audio editing program based on knowledge of other programs.*

				save, mixing, time shift, export, green screen	***Task:*** *Child will seamlessly integrate audio and video, including graphics to support their report.*
Summer	Coding	• Use an efficient procedure to simplify a program. • Recognise and correct errors in a piece of code. • Children should access Scratch coding and accurately use 'repeat' blocks to simplify a piece of code.	• Know how to navigate Scratch and begin to recognise where to find coding blocks based on categories.	*Scratch, programming, sprite, blocks, code, loop, repeat, value, forever, costume, modify, algorithm, duplicate, debug, refine, evaluate*	***Task:*** *Independently plans, codes, and debugs their game, going beyond the lesson expectations.* ***Task:*** *encourage child to think about how they might incorporate a 'random' block for effect in their code.*
	Technology in our lives	• Understand how to create a hyperlink • Understand how to check who owns photos, text or clip art.	• Know that the internet is a network of networks • I know if a resource I am using is on the internet, the school network, or my own device. • I can describe where websites are stored when uploaded to the world wide web	*Internet, network, router, network security, network switch, server, WAP, Website, web page, web address, router, routing, route tracing, browser*	***Knowledge/task:*** *Child understands and can explain the opportunities computer networks offer for communication and collaboration.*

Year 5					
Term	**Unit**	**Skills to be covered** **What should the children be able to do?**	**Knowledge to be covered** **What should the children know?**	**Vocabulary**	**Mastery**
Autumn	E-Safety	• How to create a secure password and screen name to protect my personal information • Recognising how best to protect myself and others, including reporting concerns to an adult • I understand how to communicate kindly and respectfully online.	• Know that anything I post online can be seen, used and may affect others. • I know the consequences of spending too long online or playing videogames. • I can explain why I need to protect my computer or device from harm.	*Digital footprint, download, respect, reliable, Cyber bully, password, personal, private, netiquette, appropriate, concern, social media*	***Task:*** *Child to consider negative scenarios which they can then turn into positives so they can gain further insight into the differences and the way a phrase can be turned from negative to positive.* ***Task:*** *Can discuss 'mindfulness' in relation to online behaviour, which they can present to the class/whole school* ***Role:*** *E-Safety class monitor. Member of the class who is an e-safety expert.*

	Coding	• I can deconstruct a problem into smaller steps. • I can recognise when a variable would be appropriate to achieve a desired output. • I can use variables and operators to stop a program. • I can use different inputs to control a device or onscreen action and predict what might happen. • I can use logical reasoning to detect and correct errors in algorithms and programs.	• I can explain each on the steps in my algorithm • I know why a variable is used in a program •	*Variable, change, value, set, change, design, algorithm, code, test, debug, project, evaluate*	***Knowledge:*** *Decomposes programs without support, selecting appropriate blocks and understanding different forms of input.* ***Task:*** *Challenge child with sets of 'what if' questions to do with the program they create.* .
Spring	Handling data	• I can use a spreadsheet and database to collect and record data. • I can choose an appropriate method to help the collection of data. • I can search a database using different operators.	• I can talk about mistakes in data and suggest how it could be checked. • I can explain how information can be grouped • I can explain the benefits of using a computer to create graphs	*Database, data, information, record, field, sort, order, group*	***Task:*** *Child to independently complete their own data set and use technology to analyse. This may be completed in a cross curricular manner.*

	Coding	• I can use a variable, if, then statements and repeat commands in a single piece of code. • I can use logical reasoning to detect and debug mistakes in a program. • I can use logical thinking, imagination, and creativity to extend a program.		*Selection, condition, true, false, outcomes, algorithm, program, debug, implement, design*	***Knowledge:*** *Decomposes programs without support, selecting appropriate blocks and understanding different forms of input.* ***Task:*** *Challenge child with sets of 'what if' questions to do with the program they create.*
Summer	Multi-media	• I can use text, photo, sound and video editing within a video project • I can select, use and combine the appropriate tools to create impactful work.	• Understand how to import media across into and across applications. • I know how to save and share work in an appropriate location so others can access what I have created. • I can explain that a video can include both visual and audio media	*Video, audio, recording, storyboard, script, soundtrack, dialogue, capture, zoom, pan, tilt, angle, storage, digital, tape, lighting, videographer, credits, export*	***Skill:*** *Should constantly review the animation to identify any frames that need to be deleted and should include multiple sets or characters in their animation.* ***Task:*** *Child should utilise all the skills taught within their completed animation*
	Technology in our lives	• I can use different online communication tools. • I can send information over the internet in different ways	• I can describe different parts of the system. • I can identify tasks that are managed by computer systems • I can explain how the internet enables effective collaboration	*System, connection, digital, input, process, output, protocol, address, packet, explore, reuse, remix, collaboration,*	***Task:*** *Suggesting ways in which systems could work more efficiently or designing a system for a set problem.*

Year 6					
Term	**Unit**	**Skills to be covered** **What should the children be able to do?**	**Knowledge to be covered** **What should the children know?**	**Vocabulary**	**Mastery**
Autumn	Multi-media	• I can combine a range of media, recognising the contribution of each to achieve an outcome. • I can discuss the different types of media used on websites • I can create hyperlinks to link to other people's work	• I can talk about audience, atmosphere and structure when planning a particular outcome • I can recognise the common features of a web page • I consider the ownership and use of images (copyright)	*Website, web page, browser, media, Hypertext Markup Language (HTML), logo, purpose, copyright, preview, navigation, hyperlink*	***Task:*** *Children to complete a video editing task to support the presentations of peers.*
	Coding	• I can build a simple circuit to connect a Micro: bit to a computer • I can program a Micro: bit to respond to an input • I can use logical reasoning to detect and debug mistakes in a problem	I know how to decompose a problem into smaller parts to aid writing a program.	*Micro: bit, LED, program, repetition, infinite loop, switch, algorithm, debug, evaluate*	***Questioning:*** *Can you get the same result with a different type of block? If you change the order of the block, does it have the same result?* ***Task:*** *What happens if you change… task. Explain the effect of each block and how it might alter the outcome.*
Spring	Technology in our lives.	• I can efficiently use a search engine	• I can explain why we need tools to find things online • I can talk about the way search results are selected and ranked. • I can talk about copyright and acknowledge the sources of information that I find online. • I know that websites use my data and make money and target their advertising.	*search, search engine, refine, Index, crawler, bot, ranking optimisation, links, selection, content creator*	***Task:*** *What rules would you give a crawler to make the internet easier to navigate and safer?*

	E-Safety	• I can protect my password and other personal information. • I can protect my computer or device from harm on the internet.	• I can explain the consequences of sharing too much about myself online • I can explain the consequences of spending too much time online or on a game. • I can explain the consequences to myself and others of not communicating kindly and respectively. • I can explain that communication on the internet may not be private	*Communicate, public, private, one-way, two-way, one-to-one, one-to-many, SMS, email, WhatsApp, blog, YouTube, Twitter, BBC Newsround*	***Questioning:*** *The internet has an amazing range of information and opportunities online, but how do we separate fact from fiction?* ***Task:*** *What suggestions might you give to peers to improve their online safety? What tools could you make to support e-safety of children across the school?* ***Role:*** *E-Safety class monitor. Member of the class who is an e-safety expert.*
Summer	Coding	• I can recognise when a variable would be appropriate to achieve a desired output. • I can use logical reasoning to detect and correct errors in algorithms and programs. • I can evaluate the effectiveness of efficiency of my algorithm while I continually test the programming of that algorithm. • I can create a program to run on a controllable device	• I can apply my knowledge of programming to a new environment	*Micro:bit, MakeCode, input, process, output, flashing, USB, Selection, condition, if then else, variable, random, input, sensing, accelerometer, compass, navigation, debug*	***Knowledge:*** *Child can efficiently read and write an algorithm and explain the effects of each block.* ***Task:*** *Rewrite a piece of code to have the same outcome. Child should be able to independently sequence a range*

					of blocks to achieve the same outcome. They should recognise the most efficient sequence.
	Handling data	• I can plan the process needed to investigate the world around me • I can construct a formula in a spreadsheet • I can select the most effective tool to collect data for my investigation • I can check data I collect for accuracy and plausibility • I can interpret the data I collect	• I know how to present data in an appropriate way.	*Spreadsheet, data, data heading, data set, cells, columns and rows, format, formula, calculation, graph, chart, evaluate, results, comparison*	***Task:*** *Child to independently complete their own data set and use technology to analyse. This may be completed in a cross curricular manner.*