

Computing- Progression in skills. Cycle A/ B

	Nursery			Reception			Year One			Year Two		
	Skills	Vocabulary	Experiences	Skills	Vocabulary	Experiences	Skills	Vocabulary	Experiences	Skills	Vocabulary	Experiences
Computer Science (Programming)	1.Can operate mechanical toys and understand the correct buttons to press to make things happen/move. 2. Can use pulley toys and understand how they can control the movements. 3. Can listen to and follow a two-step sequence. 4. Can think of a process/ route to take to get from one point to another. 5. Begins to experiment with toys that are programmable/ tinkerable.	Phone, Computer, Tablet, Push, Pull, Button, Open, Close, On, Off, Camera, Keyboard, Treasure hunt, following, steps, instructions, coding. Twister, Colours, red, yellow, blue, green. Sequence, algorithm, instructions. Little tin robot, Tin foil bowl, algorithm, instructions.	Treasure Hunt Twister Game Little Tin Robot	1.Can listen to and follow a 3 step sequence of instructions. 2. Can use positional language to give instructions for peers to follow. 3. Understand that an algorithm is a set of instructions. 4. Begins to understand that coding is making an algorithm of instructions. 5. Can investigate a beebot and knows that the different buttons move forwards, backwards and turn the beebot left and right. 6. Can start the beebot by inputting an algorithm and uses the 'X' to erase previous code.	Beebot Floor robot Buttons Forwards, backwards, turn, clear, go, Left Right, Algorithm, Program, Code	Beebots	1.Understand and use the language: algorithm, command, sequence. 2. Can listen to and follow a 4 step sequence of instructions. 3. Can give a sequence of directions for others to follow. 4. Understand that the beebot needs precise instructions to go to a specific destination. 5. Understands that the error in coding is from the coder and not the beebot. 6. Begins to debug a program by improving/ changing their sequence of commands. 7. Can explain the steps they	Forwards, backwards, turn, clear, go, commands, Instructions, directions, left, right, plan, algorithm, program, route, sequence	Beebots	1.Understand and use the language: sequence, command, sprite, program, algorithm, debug, coding and programming. 2. Can use programs to create and write algorithms. 3. Can confidently code, debug and program sprites using algorithms. 4. Be confident in predicting the behaviour of devices and programs due to algorithm inputted. 5. Can add backgrounds and sprites to a new design. 6. Can add words such as questions to a new design. 7. Be confident in how to debug a program if it is unsuccessful.	Sequence, command, program, run, start, outcome, predict, blocks Sprite, algorithm, design, actions, modify, change, match, compare, debug, features, evaluate	Scratch Jr.

							have used in an algorithm. 8. Can predict the outcome of a command on a device. 9. Can choose the order of commands in a sequence. 10. Can use two different programs to get to the same place.			8. Can explain why debugging is useful. 9. Can evaluate their projects and make improvements.		
Online Safety	1.Can talk about staying safe online. 2. Understands how to follow rules. 3. Understands what personal information is and knows not to share it. 4. Knows who to go to for support if worried or upset about something they have seen online. 5. Can name 1 trusted adult.	Online, tablet, video, funny tummy, tell someone, name, private, internet, trusted adult, mummy, daddy, teacher, doctor, police.	Smartie the Penguin. Jesse & Friends Chickin Clicking story book.	1.Knows why it is important to be safe on the internet. 2. Can recognise that a range of technology is used in places such as homes and schools. 3.Begins to understand that online activity can be monitored. 4.Talk about their own and others behaviours and its consequences. 5. Understands how to follow rules. 6. Understands what personal information is and knows not to share it. 7. Knows who to go to for	Internet, Online, Connects, Technology, Games, Apps, Websites, E-safety, Online safety, Feelings, Sad, Upset, Worries, Personal Information , e-safety.	Digiducks big decision story book.	1. Make decisions about whether or not statements found on the internet are true or not. 2. Identify devices that can be used to search the internet. 3. Identify what things count as personal information. 4. Identify when inappropriate content is accessed and act appropriately. 5. Recognise that a variety of devices can be used to connect a	Devices, Internet, Technology, Phone, Tablet, IPad, Computer, True. False, Facts, Trusted Adult, Apps, Games, Digital Footprint, Personal Information, D.O.B, Address, Full Name, School, Telephone Number,	Detective Digiduck story book.	1. Make decisions about whether or not statements found on the internet are true or not. 2. Identify devices that can be used to search the internet. 3. Identify what things count as personal information. 4. Identify when inappropriate content is accessed and act appropriately. 5. Recognise that a variety of devices can be used to connect a number of people. 6. Consider other people's	Internet, facts, true, false, information Computer , i-Pad, laptop, phone, tablet. Name, address, phone number, School name. Report, dislike, block, tell a grown up. Message, inbox, contact, video chat	Digiducks Famous Friend story book.

				support if worried or upset about something they have seen online. 8. Knows that a password is a type of personal information which they should only share with trusted adults.			number of people. 6. Consider other people's feelings on the internet.			feelings on the internet.		
Digital Literacy (Animation)										1.Understands and use the language: animation, onion-skinning, 2. Can use appropriate resources to make an effective flip-book or stop-frame animation. 3. Explains how an animation/ flip-book words. 4. Can predict the outcome of what an animation will look like. 5. Can plan an animation to break down a story into settings, characters and events. 6. Can evaluate their projects and make improvements.	Animation , Onion skinning, frame, delete, evaluation , stop-frame animation , events, setting, characters , sequence, image, photograph, flip book, thumatrope,	Jit5 animation

Information Technology (Technology in our lives)	1.Can name some examples of technology. 2. Can use technology appropriately in role play. 3. Understands that computers help us in school and at home and also in our future lives. 4. Can talk about different technological gadgets that they use at school and at home. 5. Can name and use a keyboard and a mouse with increasing control. 6. Can select and use technology for a purpose.	Information Technology (IT), Computer, Screen/ Monitor, Keyboard, Mouse, Phones, Laptops, Walkie-Talkies.	Kim's Game I-spy Naming parts of a computer	1.Children recognise that a range of technology is used in places such as homes and schools. 2. Knows what the word 'information' means. 3. I know what 'online' means 4. Understands that information put online can be seen by others. 5. Can talk about how we can use the internet to find things out. 6. Can identify devices I could use to access information on the internet. 7. Can talk about technology in school and at home. 8. Understands that the internet can be used to communicate. 9. Can give example of how to use a variety of technology to communicate with people you know. 10. Can name	Internet, Online, Connects, Technology, Games, Apps, Internet, Tablet, Smart Phone, Computer, Smart Speaker, Communication, Video Chat, Message, Game, Sing, Play, Conversation, Text, Laptop, Personal Information .		1.Talks about the uses of technology. 2. Can explain how technology helps us. 3. Can name examples of technology we use on a daily basis both at school and at home. 4. Can name parts of a computer e.g. monitor, tower, screen, mouse, keyboard, speakers. 5. Can effectively control a mouse to click and drag objects on a screen. 6. Can turn a computer on. 7.Can log onto a computer using username and password. 8. Can use keyboard skills to add and edit text. 9. Can use mouse and keyboard skills to make an online/	Information Technology, Keyboards, Screen/ Monitor, Mouse, Desktop, Capital letters, Space bar, Letters,		1.Can list different uses of information technology. 2. Talks about different rules to use when using IT. 3. Can say how rules can help keep me safe. 4. Identifies a range of technology used in school and beyond school 5. Understands that technology can be used in more than one way. 6. Talk about the uses of information technology 7. Can explain why computers are better at completing some tasks rather than others. 8. Understands that computers can save, edit, retrieve, open and organise files.	Information Technology (IT), Computer ,	

				parts of a computer e.g. monitor, tower, screen, mouse, keyboard, speakers. 11. Can use keyboard skills to add text. 12. Can log on to a computer using a username and password.			interactive book. 10. Can add images and voice recordings to an online/ interactive book.					
Digital Literacy (Photography)										1.Can name devices that can be used to take photographs 2. Can take photographs using digital devices e.g. iPad/ camera. 3. Can talk and explain how to take a digital photo. 4. Knows what a good photograph looks like and can take a good photo. 5. Can take photos in both landscape and portrait. 6. Can review, evaluate and discuss photos taken.	Device, camera, photograph, capture, image, digital, landscape, portrait, framing, subject, compose, light sources, flash, focus, background, editing, filter,	Cameras/ iPad's Pixlr

										7. Knows how to improve a photograph 8. Can use tools to edit an image.		
Digital Literacy (Digital Art)	1.Beginning to create a picture using a paint program. 2. Can use the mouse cursor to make marks. 3. Can change the colour of the painting tool. 4. Can use the digital eraser to rub out any errors.	Paint, colours, brush, rubber, pen, draw, click	Purple Mash.	1. Can use paint programs to make marks on a screen. 2. Can explain the tools used to create a certain effect. 3. Can use the line tool to draw lines on the screen. 4. Can use the fill colour tool in my painting. 5. Can clear their drawings.	paint program, tool, paintbrush, erase, fill, undo, music, sound	https://paintz.app/	1.Knows that different paint tools do different jobs. 2. Can use shape and line tools in their digital artwork. 3. Can use colour and paint tools appropriately. 4. Can explain which tools were helpful and why. 5. Can use shapes in their digital artwork.	colours, shape tools, line tool, fill tool, undo tool (eraser), Henri Matisse, Wassily Kandinsky, tools, feelings, colour, brush style	Tate paint, Purple Mash			
Data Handling							1.Can compare groups of objects. 2. Can group and describe objects with the same properties 3. Can record and talk about objects in groups. 4. Can describe objects in different ways	Group, object, property, label, colour, size, shape value, label, data set, more, less, most, fewest		1.Can compare groups of objects. 2. Can group and describe objects with the same properties 3. Can record and talk about objects in groups. 4. Can describe objects in different ways 5. Can compare data that they see on a pictogram	Group, object, property, label, colour, size, shape value, label, data set, more, less, most, fewest	Pictograms

										(through maths sessions)		
Self-Image and Identify (Education for a Connected World)	1. I can recognise that I can say 'no' / 'please stop' / 'I'll tell' / 'I'll ask' to somebody who asks me to do something that makes me feel sad, embarrassed or upset. 2. I can explain how this could be either in real life or online.	Sad, angry, happy, embarrassed, stop, I don't like that.		1. I can recognise that I can say 'no' / 'please stop' / 'I'll tell' / 'I'll ask' to somebody who asks me to do something that makes me feel sad, embarrassed or upset. 2. I can explain how this could be either in real life or online.	No, please stop, I'll tell, I'll ask, sad, upset, embarrassed.		1. I can recognise that there may be people online who could make me feel sad, embarrassed or upset. 2. If something happens that makes me feel sad, worried, uncomfortable or frightened I can give examples of when and how to speak to an adult I can trust.	Online, people, unkind, report, grown up, teacher, parent, block, delete, stop.		1. I can explain how other people's identity online can be different to their identity in real life. I can describe ways in which people might make themselves look different online. 2. I can give examples of issues online that might make me feel sad, worried, uncomfortable or frightened; I can give examples of how I might get help.	Online, appearance, picture, communicate, avatar, change, different.	
Online relationships (Education for a Connected World)	1. I can recognise some ways in which the internet can be used to communicate. 2. I can give examples of how I (might) use technology to communicate with people I know.	Internet, face time, phone call, text, message.		1. I can recognise some ways in which the internet can be used to communicate. 2. I can give examples of how I (might) use technology to communicate with people I know.	Internet, talk, message, face-time, text.		1. I can use the internet with adult support to communicate with people I know. 2. I can explain why it is important to be considerate and kind to people online	Technology, communicate, people, contact, friends, information, name, address, parents, School		1. I can use the internet to communicate with people I don't know well. 2. I can give examples of how I might use technology to communicate with others I don't know well.	Message, technology, communicate, people, talk, chat, video.	
Online reputation	I can identify	Website, personal		I can identify ways that I can	Website, personal		1. I can recognise that	Technology, communicate		1. I can explain how	Information,	

(Education for a Connected World)	ways that I can put information on the internet.	information, name, address, School		put information on the internet.	information, name, address, School.		information can stay online and could be copied. 2. I can describe what information I should not put online without asking a trusted adult first.	e, people, contact, friends, information, name, address, parents, School		information put online about me can last for a long time. 2. I know who to talk to if I think someone has made a mistake about putting something online.	internet, name, images, address, School, mistake, report, trusted person	
Online Bullying (Education for a Connected World)	1. I can describe ways that some people can be unkind online. 2. I can offer examples of how this can make others feel.	Unkind, internet, report, tell someone.		1. I can describe ways that some people can be unkind online. 2. I can offer examples of how this can make others feel.	Unkind words, not playing in a nice way, blocking, ignoring, deleting, sad, worried, scared.		I can describe how to behave online in ways that do not upset others and can give examples.	Online, behave, kind, careful, don't talk to strangers.		1. I can give examples of bullying behaviour and how it could look online. 2. I understand how bullying can make someone feel. 3. I can talk about how someone can/would get help about being bullied online or offline.	Bullying, unkind, cyber bullying, chat rooms, block, delete, message, help	
Managing Online Information (Education for a Connected World)	1. I can talk about how I can use the internet to find things out. 2. I can identify devices I could use to access information on the internet.	Search, information, laptop, tablet, phone, i-pad, computer, netbook, siri, alexa.		1. I can talk about how I can use the internet to find things out. 2. I can identify devices I could use to access information on the internet. 3. I can give simple examples of how to find information	Search, information, laptop, tablet, phone, i-pad, computer, netbook, siri, alexa.		1. I can use the internet to find things out. 2. I can use simple keywords in search engines. 3. I can describe and demonstrate how to get help from a trusted adult	Search, research, information, internet, find, Google, report, tell an adult.		I can use keywords in search engines I can demonstrate how to navigate a simple webpage to get to information I need (e.g. home, forward, back buttons; links, tabs and sections).	Search, research, type, cursor, scroll, link, return, tabs, sections, voice activated, Google, internet explorer, facts.	

	3. I can give simple examples of how to find information (e.g. search engine, voice activated searching).			(e.g. search engine, voice activated searching).			or helpline if I find content that makes me feel sad, uncomfortable or worried or frightened.			I can explain what voice activated searching is and how it might be used (e.g. Alexa, Google Now, Siri). I can explain the difference between things that are imaginary, 'made up' or 'make believe' and things that are 'true' or 'real'. I can explain why some information I find online may not be true		
Health, wellbeing and lifestyle (Education for a Connected World)	I can identify rules that help keep us safe and healthy in and beyond the home when using technology. I can give some simple examples	Rules, computer, tablet, time, grown-up, internet		I can identify rules that help keep us safe and healthy in and beyond the home when using technology. I can give some simple examples	Rules, computer, tablet, time, grown-up, internet		I can explain rules to keep us safe when we are using technology both in and beyond the home. I can give examples of some of these rules.	Rules, safe, internet, computer, safe, appropriate.		I can explain simple guidance for using technology in different environments and settings. I can say how those rules/guides can help me	Safe, School, home, laptop, access, appropriate, rules, screen time.	
Privacy and Security (Education for a Connected World)	I can identify some simple examples of my personal information (e.g. name). I can describe the	Name, private, internet, trusted adult, mummy, daddy, teacher, doctor, police.		I can identify some simple examples of my personal information (e.g. name, address, birthday, age, location).	Personal information, name, address, birthday, age, location, trust, grown-up.		1. I can recognise more detailed examples of information that is personal to me (e.g. where I live, my family's	Personal information, name, address, School, private, trust, grown-up, share, passwords, protect.		I can describe how online information about me could be seen by others I can describe and explain some rules for keeping my	Private, passwords, , username, account, device, connect, internet, Wi-Fi,	

	people I can trust and can share this with; I can explain why I can trust them.			I can describe the people I can trust and can share this with; I can explain why I can trust them.			names, where I go to school). 2. I can explain why I should always ask a trusted adult before I share any information about myself online. 3. I can explain how passwords can be used to protect information and devices.			information private. I can explain what passwords are and can use passwords for my accounts and devices. I can explain how many devices in my home could be connected to the internet and can list some of those devices.	connected .	
Copyright and ownership (Education for a Connected World)	1. I know that work I create belongs to me. 2. I can name my work so that others know it belongs to me.	Name, belong, my work.		1. I know that work I create belongs to me. 2. I can name my work so that others know it belongs to me.	Work, belong, personal, private, own, save.		1. I can explain why work I create using technology belongs to me. 2. I can say why it belongs to me (e.g. 'it is my idea' or 'I designed it'). 3. I can save my work so that others know it belongs to me (e.g. filename, name on content).	Personal belongings, safe, protected, personal information.		1. I can describe why other people's work belongs to them. 2. I can recognise that content on the internet may belong to other people.	Personal belongings, safe, protected, personal information.	