

P4 – Pupils intentionally make selections to achieve a familiar outcome. They know that certain actions produce predictable results and that technology can be used to control objects, events and their environment.

Digital Literacy	Information Technology	Computer Science
Pupils: • Access online content. • Make an intentional choice between a limited selection of digital resources.	Pupils: • Intentionally explore digital devices. • Make something happen intentionally on a digital device.	Pupils: • Can control a specific element of their environment. • Recognise that an action produces a predictable result. • Can follow a single instruction to operate a digital device.

P5 – Pupils make selections in order to explore and access content. They make connections between their actions and what happens on the screen or device.

Digital Literacy	Information Technology	Computer Science
Pupils: • Identify and access online content. • Make an intentional choice between a selection of digital resources or devices.	Pupils: • Use technology to explore and access content. • Select basic options within a familiar application. • Respond to on-screen cues to make something happen.	Pupils: • Know they can use technology to control things around them. • Follow an instruction when operating a range of digital devices. • Recognise the success or failure of an action.

P6 – Pupils identify and operate digital devices independently for familiar tasks. They show they understand that digital information and media can be accessed repeatedly. They can give and respond to simple instructions to control digital devices.

Digital Literacy	Information Technology	Computer Science
Pupils: • Understand that they can access the same content on different devices. • Recognise that there are different technologies that serve different purposes. • Identify the appropriate technology from a limited selection to fulfil a task.	Pupils: • Independently operate a digital device to fulfil a familiar task. • Create their own simple digital content. • Choose media from a selection for a given purpose.	Pupils: • Can follow simple instructions in order to operate digital devices. • Give an instruction to control a digital device. • Try another approach if the first doesn't succeed.

P7 – Pupils find/capture and present information in digital formats. They begin to choose and use digital resources for a given activity. They show they understand that digital information and media can be saved and retrieved. They have an emerging awareness of eSafety.

Digital Literacy	Information Technology	Computer Science
Pupils: - Can find information on familiar websites. - Understand that they can create digital content. - Choose the appropriate technology to fulfil a given task. - Are aware that some online content is inappropriate. - Are aware that information can be private or public.	Pupils: - Use a range of technologies in and out of school. - Select media to convey information. - Present information by combining media, with support. - Demonstrate understanding that information and media can be stored on a digital device.	Pupils: - Follow a short sequence of instructions to operate a digital device. - Give simple instructions to control a range of digital devices. - Understand that digital devices can be controlled in different ways. - Appreciate that changing instructions can change outcomes. - Can identify the steps of a known task. - Try alternative approaches in order to achieve a goal.

P8 – Pupils use digital technology to present their ideas. They search for information and media. Pupils understand how to stay safe online. They can sequence instructions.

Digital Literacy	Information Technology	Computer Science
Pupils: - Can find information on the internet using a basic search. - Recognise simple examples of when and why people use technology. - Understand they can share digital content. - Understand that digital content can be edited. - Recognise inappropriate content and know they should tell an appropriate adult. - Recognise what information should be kept private.	Pupils: - Independently use a range of technologies for different purposes. - Present information and ideas by combining media independently.	Pupils: - Understand that we control digital devices by giving them instructions. - Independently follow a short sequence of instructions to achieve a specific outcome. - Can list the steps of a known task in order. - Creates a short sequence of instructions to control a digital device. - Change instructions to achieve a different outcome. - Recognise a problem and attempts to solve it.

EYFS	Computing
	Green-ipads Orange- laptops/computers Purple—both
Vocabulary tier 3	Computer, iPad, keyboard, mouse, monitor, screen, apps
Vocabulary tier 2	Remote control, simple, complete, program, equipment, access, appropriate
Knowledge	⇒ Know two different digital devices e.g. iPad, laptop (Basic Skill) ⇒ Recognise that you can access content of digital devices ⇒ Know that you can use a mouse, touch screen or appropriate access device to target and select options on a screen. ⇒ Know the basic parts of a computer e.g. mouse and screen ⇒ Know how to select a specific device to complete a task e.g. iPad to take a photo ⇒ Know that information can be retrieved from computers (Using) ⇒ Know a range of formats e.g. video, audio, image ⇒ Know how to create digital content e.g. digital art ⇒ Know media to convey information e.g. image for a poster ⇒ Know how to repeat an action with technology to trigger a specific outcome (Computer Science—Algorithms and Programming) ⇒ Recognise the success or failure of an action ⇒ Know that simple instructions can control a digital device ⇒ Know that we control computers ⇒ Know to tell an appropriate adult if they see something on a device that upsets them (Digital Literacy) ⇒ Know that some online content is inappropriate ⇒ Know that information can be public or private

EYFS	Computing Green-ipads Orange- laptops/computers Purple—both
Equipment/resources	CD player, remote control, cameras, iPads, computer, 2simple, beebots, RC toys, headphones
Apps	Dojo, reading eggs, letter joins, BeeBot
Skills (End point)	(Computing Science- Algorithms) Make toys work using a remote control (Computing Science- Create programs) Complete a simple program on a computer (Information technology- Using) Use simple equipment to access child appropriate programs

Year 1	Computing
	Green-ipads Orange- laptops/computers Purple—both
Vocabulary tier 3	Algorithm , digital, website, IT, chrome, internet, explore, command, safari, kiddle, decomposition , logic , patterns . programming , tinkering , collaborating
Vocabulary tier 2	Program, create, series, instructions, plan, journey, programmable, predict, outcome, technology, purposefully, store, retrieve, content.
Knowledge	⇒ Know what a computer is (input-> process -> output) (Basic Skills) ⇒ Know three digital devices e.g. laptop, phone, games console ⇒ Know how to logon to the school computer/ unlock school iPad with support ⇒ Know the basic parts of a computer e.g. mouse, screen, keyboard ⇒ Know how to open key applications independently ⇒ Know how to add an image to a document from a given folder/ source with support ⇒ Know how to take a picture on an iPad ⇒ Know how to zoom in and out on an iPad using their fingers ⇒ Know how to swipe and select on the screen ⇒ Know where the power/ lock button, volume buttons and home button is on the iPad. ⇒ Know what technology they can use in and out of school (Information technology- Using) ⇒ Know what the internet is and its uses (Information technology- Using) ⇒ Know which media to select to present information about a topic e.g. video, images, sound ⇒ Know how to collect simple data on a topic (e.g. likes and dislikes) ⇒ Know how to present simple data using images e.g. animals ⇒ Know that you can find out information from a website ⇒ Know that you can edit digital content to change its appearance ⇒ Know how to select basic tools/ options to change the appearance e.g. filter on an image

Year 1	Computing
	Green-ipads Orange- laptops/computers Purple—both
Knowledge	⇒ Know what algorithms are (Computing Science- Algorithms) Click here for lesson resources ⇒ Know that computers do not have a brain ⇒ Know and explain that we control computers by giving them instructions ⇒ Know how to create a simple program e.g. control a Beebot ⇒ Know how to create a two step algorithm ⇒ Know that an algorithm is a sequence of instructions to make something happen ⇒ Know that the order of instructions in an algorithm is important ⇒ Know how to debug an error in a simple program e.g. a Beebot going the wrong way ⇒ Know it is important to keep personal information private (EYFS) PSHE (Digital Literacy) ⇒ Know who to tell if we are concerned about content or contact online ⇒ Know how to create a simple password when logging on ⇒ Know why we use passwords
Equipment/resources	Beebots and mats, batteries, iPads, headphones, laptops
Apps	Hopscotch, beebot, Daisy the Dinosaur
Skills (End point)	• (Computing Science- Algorithms) Create a series of 2 instructions and plan a journey for a programmable toy (EYFS) ipads, BeeBots • (Computing Science- Create programs) Create a simple programme. Click here for lesson resources • (Computing Science- Reasoning) Predict what the outcome of a simple program will be. Beebots • (Digital Literacy) Use technology and a website safely PSHE (EYFS) • (Information technology- Using) Use technology purposefully to create, store and retrieve digital content E.g. use a camera to take a photo, store on the camera’s memory and retrieve it from the memory.

Year 2	Computing Green-ipads Orange- laptops/computers Purple—both
Vocabulary tier 3	Devices, content, manipulate, debug, decomposition , logic , patterns , programming , tinkering , collaborating , Algorithm
Vocabulary tier 2	Create, series, instructions, plan, journey, programmable, simple, program, test, necessary, predict, outcome, complex, reporting, function, or- ganise, retrieve, manipulate, content.
Knowledge	⇒ Know that a range of devices contain computers e.g. phone, games console, Smart speaker (Basic Skills) ⇒ Know what the basic parts of a computer are used for ⇒ Know different input devices e.g. mouse/ keyboard ⇒ Know output devices ⇒ Know how to save and open files from a given folder ⇒ Know how to highlight text and use arrow ⇒ Know how to capture media independently e,g. take photos or record audio ⇒ Know how to take a video on an iPad ⇒ Know how to open and close app and search for them by swiping left ⇒ Powerpoint– know how to name and save a presentation - know how to select a design template - know how to input a new slide - know how to copy and paste ⇒ Know that we can use technology and record playback audio or take and view new photographs ⇒ Know that we can search for information ⇒ Know how to plan out digital content e.g. simple sketch/ story board ⇒ Understand that programs require precise instructions (Information technology- Using) (Y1) Click here for lesson resources

Year 2	Computing Green-ipads Orange- laptops/computers Purple—both
Knowledge	⇒ Know how to debug simple programmes (Computing Science- Create programs) Click here for lesson resources ⇒ Understand algorithms are used on digital devices as programmes (Computing Science- Algorithms) Click here for lesson resources ⇒ Know that computers have no intelligence and that we have to programme them to do thing ⇒ Know how to create a programme with multiple steps ⇒ Know that algorithms need to be clear and precise ⇒ Know where to go for help if you are concerned about technology (Digital Literacy) PSHE ⇒ Know rules for acceptable use of technology ⇒ Know that some information found online may not be true ⇒ Know that spending a lot of time on the screen can be unhealthy ⇒ Remember a simple password to log on to a computer/ website
Equipment	iPads, laptops, BeeBots, headphones
Apps	Lightbot hour, beebot, Alex, Wedo (Lego), prodigy, spelling shed, maths shed, kahoot, teachamonster to read, QR scanner
Skills (End point)	(Computing Science- Algorithms) Create a series of 4 instructions and plan a journey for a programmable toy (Y1) ipads, BeeBots (Computing Science- Create programs) Write a simple program and test it, debugging if necessary (Y1) iPads, BeeBots (Computing Science- Reasoning) Predict what the outcome of a complex program will be. Alex, Light bot hour. Click here for lesson programmes (Digital Literacy) Use a website or app reporting function PSHE (Y1) (Information technology- Using) Organise and manipulate digital content (Y1)

Year 3	Computing Green-ipads Orange- laptops/computers Purple—both
Vocabulary tier 3	USB, hard drive, office, server, printing, network, software, clouds, google drive, one drive, dropbox, my files, potential danger, decomposition , logic , patterns , programming , tinkering , collaborating , Algorithm , input , computer systems , output , sequence
Vocabulary tier 2	Programs, accomplish, specific, sequence, various, forms, technology, respectfully, responsibly, design, create, content, present, information, variety.
Knowledge	⇒ Know the difference between input and output on a computer device (Basic Skills) ⇒ Know where to save files in a shared folder ⇒ Know how to save files with appropriate names ⇒ Know how to use a keyboard effectively to type text ⇒ Know how to use the left/ right and double click on a mouse ⇒ Know how to add an image from the internet ⇒ Resize and move an image in a document ⇒ Know how to use a search engine to find simple information ⇒ Know that school computers are connected ⇒ PowerPoint– Know how to input a picture onto a slide - how to change the font, colour and size of text ⇒ Word—create, name and save a document - change formatting (bold, italics, font sizes and aligning text) - check list using bullets and numbers -Know how to copy and paste text ⇒ Know how to take a screenshot on an iPad

Year 3	Computing Green-ipads Orange- laptops/computers Purple—both
Vocabulary tier 3	USB, hard drive, office, server, printing, network, software, clouds, google drive, one drive, dropbox, my files, potential danger, decomposition , logic , patterns , programming , tinkering , collaborating , Algorithm , input , computer systems , output , sequence
Knowledge	⇒ Understand that networks can be used for communication and collaboration (Information technology- Using) PSHE ⇒ Understand what networks do and how they provide multiple services (Information technology- Using) ⇒ Know how to design and create simple digital content e.g. poster ⇒ Edit digital content to improve it ⇒ Know the good features of a piece pf digital content ⇒ Know why we use different types of media to convey information e.g. text, image, audio, video ⇒ Know how to modify an existing program e.g. change background, number of times (Computer Science—Algorithms and Programming)(Scratch) ⇒ Know the outcome of a block or text (Scratch/ logo) ⇒ Know what sequencing is in a program ⇒ Know what repetition is in a program (Y3/Y4?) ⇒ Know what count controlled loops are ⇒ Know how count controlled loops make a program more efficient ⇒ Know what a forever loop is in a program or algorithm ⇒ Know how to spot errors in a block or text based program ⇒ Know that different inputs can be used to control a program

Year 3	Computing Green-ipads Orange- laptops/computers Purple—both
Knowledge	⇒ Know when to use technology and when and where it adds little or no value. (Computing Science- Reasoning) ⇒ Know different ways they can help if concerned (Digital Literacy) ⇒ Explain why we need to keep our password safe. ⇒ Recognise that digital content belongs to the person who first created it, but we can give permission for others to use it. ⇒ Recognise when to share personal information and when not to. ⇒ Recognise that some people lie about who they are online. ⇒ Are aware that games and films have age ratings.
Equipment/resources	Microsoft office, laptops, iPads, headphones, USB sticks
Apps	Alex, scratch, prodigy, super pads, TT rockstars, reading eggs, spelling shed, garage band, keynote, pages, procreate, Minecraft
Skills (End point)	• (Computing Science- Algorithms) Write programs that accomplish specific goals (Y2) ScratchJr Click here for lesson resources • (Computing Science- Create programs) Use sequences in programs Click here for lesson resources • (Computing Science- Reasoning) Use and work with various forms of input and output (Computing Science- Create programs) Lesson resources for input. Lesson resources for output • (Digital Literacy) Use technology respectfully and responsibly (Y1) • (Information technology- Using) Design and create content and then collect and present the information using a variety of software(Y1)

Year 4	Computing Green-ipads Orange- laptops/computers Purple—both
Vocabulary tier 3	Interface, podcast, software, upload, variables, download, produce, sharing, model, screenshot, video capture, evaluation , debugging , program-ming , search technologies , creating , decomposition , logic , repetition , computer networks , computer systems , abstraction
Vocabulary tier 2	Programs, accomplish, specific, design, logical, reasoning, detect, errors, identify, range, report, content, concerns, analyse, evaluate, information, sources.
Knowledge	⇒ Know that you can organise files using folders (Basic Skills) ⇒ Know how to delete/ remove files ⇒ Know how to use key parts of a keyboard effectively e.g. shift, arrow keys, delete ⇒ Know how to copy and paste text or images in a document ⇒ Know how to crop images and apply simple filters ⇒ Know how to use a search engine to find specific information ⇒ Know that school computers are connected by network ⇒ PowerPoint—Know how to animate text and pictures ⇒ Word—Inset and image - How to change page orientation - Insert a header and footer and page numbers ⇒ Know how to turn on/off Wi-Fi, adjust brightness and lock screen on an iPad ⇒ Know how to edit digital content according to feedback (Using) ⇒ Know the good features of digital content and apply these in own design ⇒ Know the benefits of using technology to present information ⇒ Know where to find copyright free content e.g. creative commons images ⇒ Know that the internet is made up of computers an other digital devices connected together all around the world ⇒ Know that you use a web browser to access information stored on the internet

Year 4	Computing Green-ipads Orange- laptops/computers Purple—both
Knowledge	⇒ Know how to search results are selected (Computer Science– Algorithms) Click here for lesson resources ⇒ Know how to use repetition in programs (Computing Science- Create programs) Click here for lesson resources ⇒ Know how computer networks can provide multiple services (Computing Science– Reasoning) Click here for lesson resources ⇒ Know how to create a program using a range of events/ inputs to control what happens ⇒ Know that we can decompose a problem into smaller parts tp help solve it ⇒ Know when to use forever loops and counter controlled loops, and use them in programs ⇒ Know how to use selection in algorithms in programs to alter what happens when a condition changes e.g. If... when... ⇒ Recognise common mistakes in programs and how to correct them ⇒ Know what is acceptable and unacceptable behaviour when using technology (Digital Literacy) (Y3) PSHE ⇒ Recognise what kinds od websites are trustworthy sources of information ⇒ Know the benefits an risks of different apps and websites ⇒ Recognise that the media can portray groups of people differently
Equipment/resources	Microphone, interface, camera, Microsoft office, simple/super pads
Apps	iMovie, final cat, moviemaker
Skills (End point)	• (Computing Science- Algorithms) Debug programs that accomplish specific goals (EYFS) Click here for lesson resources • (Computing Science- Create programs) Design programs that accomplish specific goals (Y3) Click here for lesson resources • (Computing Science- Reasoning) Use logical reasoning to detect and correct errors in programs. Click here for lesson resources • (Digital Literacy) Identify a range of ways to report concerns about content • (Information technology- Using) Analyse and evaluate information from computing sources

Year 5	Computing Green-ipads Orange- laptops/computers Purple—both
Vocabulary tier 3	Trigger, variables, input, output, velocity, social media, asterix, brackets, copyright, publishing, decomposition . Search technologies , selection , programming , logic , Algorithm , patterns . debugging , control ,
Vocabulary tier 2	Evaluate, solve, decomposing, programs, logical, reasoning, explain, research, present, data
Knowledge	⇒ Know how to type using fingers on both hands (Basic Skills) ⇒ Know a range of keyboard shortcuts e.g. ctrl C (copy), ctrl V (paste). ⇒ Explain what makes a strong password. ⇒ Know how to organise files correctly using folders and file names ⇒ Know how to mute and unmute audio on a computer or iPad. ⇒ Recognise that there is more than one search engine, and they may produce different results. ⇒ Know how to use a search engine effectively to find information and images. ⇒ Know how to search for an application on a computer/tablet. ⇒ Know how to use advanced settings in search engines ⇒ PowerPoint– Know how to use hyperlink between slides and internet ⇒ Word—Use grammar and spell check - Insert a table including how to add and delete rows and columns ⇒ Understand how to design and create a system (Information technology– Using) ⇒ Know how to use appropriate hardware and software to full fill a specific task ⇒ Recognise the benefits of using technology to collaborate with others ⇒ Know the difference between the internet and the World Wide Web ⇒ Know the risks and benefits of sharing data online

Year 5	Computing
Knowledge	Green-ipads Orange- laptops/computers Purple—both ⇒ Understand how search results are selected and ranked (Computing Science- Algorithms) Click here for resources ⇒ Understand that they have to make choices when using technology and that not everything is true and/or safe (Digital Literacy) PSHE ⇒ Know how to control physical systems (Computing Science– Algorithms) Click here for lesson resources ⇒ Know a range of sensors in physical systems. ⇒ Recognise that different solutions may exist for the same problem. ⇒ Recognise variables in a program and what they do. ⇒ Know how selection is used in programming ⇒ Recognise variables in a program and what they do ⇒ Know what repeat-until loops are ⇒ Know where to find copyright free images and audio, and why this is important. (Digital Literacy) ⇒ Critically evaluate websites for reliability of information and authenticity. ⇒ Demonstrate responsible use of a online services, and know a range of ways to report concerns.
Equipment/resources	Robots, external hardware, USB ABC, mide cable, iPads, laptops
Apps	Garage Band, ableton, robot software, Wedo (Lego), Alex, Heggerty, Co-do, Minecraft
Skills (End point)	• (Computing Science- Algorithms) Solve problems by decomposing them into smaller parts. Click here for lesson resources Evaluate a program and make improvements to the code or design accordingly. • (Computing Science- Create programs) Use selection in programs Click here for lesson resources Use two-way selection in programs and algorithms, i.e. if...then...else... • (Computing Science- Reasoning) Use logical reasoning to explain how algorithms work. Click here for lesson resources Predict what will happen in a program or algorithm when the input changes (sensor, data or event) • (Digital Literacy) Select and use safe websites for research (Y3) • (Information technology- Using) Collect and present data (Y4)

Year 6	Computing
	Green-ipads Orange- laptops/computers Purple—both
Vocabulary tier 3	Midi, attribute, data, variables , programming , logic , Algorithm , computer names , computer systems , abstraction , simulation .
Vocabulary tier 2	Variables, program, understand, networks, logical, reasoning, detect, errors, mature, awareness, evaluating, content, analyse, data.
Knowledge	⇒ Know how to type efficiently using both hands (Basic Skill) ⇒ Know a range of keyboard short cuts ⇒ Know that different devices may have different operating systems ⇒ Know how to organise files correctly using folders and file names ⇒ Know the basic functions of an operating system ⇒ Know common files and types of extensions e.g. jpeg, png, doc and wav ⇒ Know a range of internet services e,g, email, VOIP (e.g. FaceTime, Skype) World Wide Web and what they do ⇒ Excel—Know what a spreadsheet is and what is used for - Total up an amount from a series of numbers - Create a simple graph or chart from a series of data - Know how to use simple formulae in a spreadsheet to present effectively, using relevant formulae - Know that that poor quality data leads to unreliable results ⇒ Know the difference between physical, mobile and wireless network ⇒ Know how to select, use and combine software on a range of digital devices (Information Technology– Using) ⇒ Know how to design and create systems (Information Technology– Using) ⇒ Know what nested selection statements are in a program or algorithm ⇒ Know and use procedures (sub-routines) in programs. ⇒ Know how to find common errors and how to fix them

Year 6	Computing Green-ipads Orange- laptops/computers Purple—both
Knowledge	⇒ Combine a variable with relational operators (< = >) to determine when a program changes, e.g. if score > 5, say “well done”. ⇒ Recognise key concepts (sequence, selection, repetition and variables) in a range of languages and contexts. ⇒ Know how to simulate physical systems (Computer Science– Algorithms) Click here for lesson resources ⇒ Understand the opportunities computer networks offer for collaboration (Digital Literacy) ⇒ Explain what makes a strong password and why this is important at school and in the wider world. ⇒ Explain how algorithms are used to track online activities with a view to targeting advertising and information. ⇒ Know that there are laws around the purchase of games; the production, sending and storage of images; what is written online; and around online gambling.
Equipment/resources	Robots, external hardware, USB ABC, mided cable, iPads, laptops
Apps	Alex, BeeBot, WeDo, Excel, Pages
Skills (End point)	(Computing Science- Algorithms) Work with variables whilst writing a program Click here for lesson resources (Computing Science- Create programs) Understand computer networks– including the internet. Click here for lesson resources (Computing Science- Reasoning) Use logical reasoning to detect and correct errors in algorithms. Click here for lesson resources (Digital Literacy) Show a mature awareness when evaluating digital content. (Information technology- Using) Analyse and evaluate data Produce graphs from data in a spreadsheet, chart or database. Analyse and evaluate data and information in a spreadsheet, chart or database.