



Knowledge and Progression in Computing

Early Learning Goals	Technology: Children recognise that a range of technology is used in places such as homes and schools. They select and use technology for particular purposes.					
Year Group	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Topics	E-Safety, Logging on and off, Using Bee bots, Coding using Purple Mash and Busy Things, Intro to Google Earth and digital maps, Hour of Code, Intro to Microsoft Word and Power point	E-Safety, Coding using Purple Mash, Busy Things & Scratch Jr, Using Bee bots, Using Google Earth and digital maps, Hour of Code, Using Microsoft Word and Power point	E Safety, Coding using Scratch & Kodu, Internet searches, Using Microsoft Power point, Word, Paint & Publisher, Garageband, Digital Photography & Stop Motion	E-Safety, Multi-media, Coding using Scratch, Branching databases, Presenting Info using Microsoft Power point, Word, Excel & Publisher, Exploring digital networks & search engines	E-safety, Coding using Scratch, Evaluating websites, Legobots, Presenting info using Microsoft Power point, Word, Excel & Publisher, Exploring digital networks	E-Safety, Coding using Scratch, J2Code, Khan Academy, Legobots, Designing and evaluating websites, Presenting research using Prezi, Microsoft Power point, Word, Excel & Publisher and Comic Life.
Computers – Information Technology	Recognise common uses of information technology in the home and school environment	Recognise common uses of technology beyond school	Recognise familiar forms of input and output devices and how they are used, Make efficient use of familiar forms of input and output devices.	Use other input devices such as cameras or sensors	Consolidation	Consolidation
Key vocabulary	Computer, tablet, Beebot, Digital	Computer, tablet, Beebot, Digital	Computer, tablet, Beebot, Digital, Digital camera, sensor.	Computer, tablet, Beebot, Digital, Digital camera, sensor.	Computer, tablet, Beebot, Digital, Digital camera, sensor, Robot.	Computer, tablet, Beebot, Digital, Digital camera, sensor, Robot.

<p>Using a computer – Information Technology</p>	<p>Use technology purposefully to create digital content</p>	<p>Use technology purposely to create, organise, store, manipulate and retrieve digital content</p>	<p>With support use a variety of software to accomplish goals</p>	<p>With support use a variety of software on a range of digital devices. With support select, sort and combine a variety of software on a range of digital devices to accomplish given goals</p>	<p>Independently select and use appropriate software for a task, Independently select , use and combine a variety of software to design and create content for a given audience</p>	<p>Independently select , use and combine a variety of software to design and create content for a given audience including collecting, analysing, evaluating and presenting data and information. Create a range of programs, systems and content for an audience.</p>
<p>Key vocabulary</p>	<p>paint, colour, brush, tools, settings, undo, redo, text, image, size, poster, launch, application, software, window, minimise, restore, size, move, screen, close, click, drag, log on, log off, keyboards, keys, mouse, click, button, double click, drag, present.</p>	<p>paint, colour, brush, tools, settings, undo, redo, text, image, size, poster, launch, application, software, window, minimise, restore, size, move, screen, close, click, drag, log on, log off, keyboards, keys, mouse, click, button, double click, drag, present.</p>	<p>draw, object, shape, line, line colour, fill colour, group, ungroup, font, size, text box, format, image, wrap text, plan, link, image, object, link, hyperlink, minimise, restore, size, move, screen, split, create, organise, file, folder, close, exit, search, print, password, screenshot, snipping tool, shift, undo, redo, menu, dictionary, highlight, cursor, toolbar, spellcheck, insert, table.</p>	<p>draw, object, shape, line, line colour, fill colour, group, ungroup, font, size, text box, format, image, wrap text, plan, link, image, object, link, hyperlink, minimise, restore, size, move, screen, split, create, organise, file, folder, close, exit, search, print, password, screenshot, snipping tool, shift, undo, redo, menu, dictionary, highlight, cursor, toolbar, spellcheck, insert, table.</p>	<p>window, layout, text, font, colour, format, heading, hyperlink, 2D shape, 3D shape, orbit, pan, zoom, eraser, dimension, measurement, guide, audio, record, edit, play stop, skip, waveform, input, output, record, edit, play podcast, digital content, downloadable, backing track, voiceover, mute, gain, production, post-production, documentary, project, evaluation, screening, ceremony, upload, insert, table, spreadsheet, cell, row, column, formula/formulas, calculate, format, edit, insert, ascending, descending.</p>	<p>window, layout, text, font, colour, format, heading, hyperlink, 2D shape, 3D shape, orbit, pan, zoom, eraser, dimension, measurement, guide, audio, record, edit, play stop, skip, waveform, input, output, record, edit, play podcast, digital content, downloadable, backing track, voiceover, mute, gain, production, post-production, documentary, project, evaluation, screening, ceremony, upload, insert, table, spreadsheet, cell, row, column, formula/formulas, calculate, format, edit, insert, ascending, descending.</p>
<p>Networks - Digital Literacy</p>			<p>Understand that computer networks enable the sharing of data and information. Understand that the internet is large network of computers and that information can be shared between computers</p>	<p>Understand what servers are and how they provide services to a network</p>	<p>Begin to use internet services to share and transfer data to a third party</p>	<p>Understand how computer networks enable computers to communicate and collaborate, Begin to use internet services within their creations and transfer data to a third party</p>

Key vocabulary			Search engine, safe, secure, internet, world wide web, social media	Search engine, safe, secure, internet, world wide web, social media	Email, subject, address, communicate, advanced search, results, browser, terms of use, bias, authority, citation, plagiarism, source, website, https, site, domain, website, browser, address bar.	Email, subject, address, communicate, advanced search, results, browser, terms of use, bias, authority, citation, plagiarism, source, website, https, site, domain, website, browser, address bar.
E-Safety – Digital Literacy	Learn where to go for help and support when they have concerns about content or contact on the internet or other online technologies	Use technology safely and keep personal information private	Use technology safely and respectfully keeping personal information private. Recognise acceptable and unacceptable behaviour	Use technology responsibly and understand that communication online may be seen by others. Understand where to go for help and support when they have concerns about content or contact on the internet or other online technologies	Understand the need to only select age appropriate content	Use technology respectfully and responsibly, Identify a range of ways to report concerns and content and contact in and out of school.
Key vocabulary	Safe, meet, accept, reliable, tell, online, trusted, adult, information, safety, personal, key, question, tell, safe, share, stranger, danger, internet.	Safe, meet, accept, reliable, tell, online, trusted, adult, information, safety, personal, key, question, tell, safe, share, stranger, danger, internet.	Internet, world wide web, communicate, message, social media, email, password, cyberbullying/bullying, plagiarism, profiles, account, private, public.	Internet, world wide web, communicate, message, social media, email, password, cyberbullying/bullying, plagiarism, profiles, account, private, public.	Spam, link, privacy, virus, scam, phishing, inbox, junk, sender, subject, secure, safe, account, online, private, social media, adverts, cyberbullying, reporting, anonymous, victim, fraudulent, policy, personal.	Spam, link, privacy, virus, scam, phishing, inbox, junk, sender, subject, secure, safe, account, online, private, social media, adverts, cyberbullying, reporting, anonymous, victim, fraudulent, policy, personal.
Net Searching - Digital Literacy			Use simple search technologies, Recognise that some sources are more reliable than others	Understand how results are selected and ranked by net engines	Use filters in search technologies effectively, appreciate how results are selected and ranked	Be discerning when evaluating digital content, Use filters in search technologies effectively
Key vocabulary			Search engine, image, keyboard, email, subject, address, communicate, sender, safe, secure, internet, world wide web, social media	Search engine, image, keyboard, email, subject, address, communicate, sender, safe, secure, internet, world wide web, social media	Advanced search, results, browser, terms of use, bias, authority, citation, plagiarism, source, website, https, site, domain, website, browser, address bar.	Advanced search, results, browser, terms of use, bias, authority, citation, plagiarism, source, website, https, site, domain, website, browser, address bar.

<p style="text-align: center;">Coding - Computer Science</p>	<p>Predict the behaviour of simple programs, Understand what algorithms are and how they are implemented on digital devices</p>	<p>Use logical reasoning to predict the behaviour of simple programs, Create simple programs, Create and debug simple programs, Debug simple programs by using logical reasoning to predict the actions carried out by the code, understand that programs execute by following precise and unambiguous instructions</p>	<p>Design, write and debug programs that control or simulate virtual events, Use logical reasoning to explain how simple algorithms work</p>	<p>Decompose programs into smaller parts, Use logical reasoning to detect and correct errors in algorithms and programs, Select, use and combine a variety of software systems and content that accomplish given goals</p>	<p>Design, input and test an increasingly complex set of instructions to a program or device, Design, write and debug programs that accomplish specific goals including the control of simulating physical systems. Design, write and test simple programs that follow a sequence of instructions or allow a set of instructions to be repeated. Design, write and test simple programs where a particular result will happen based on actions or situations controlled by the user. Use logical reasoning to explain how increasingly complex algorithms ensure a program's efficiency</p>	<p>Include use of sequence, selection and repetition with the hardware used to explore real world systems. Solve problems by decomposing them into smaller parts. Create programs which use variables. Use variables, sequence, selection and repetition in programs. Use logical reasoning to explain how increasingly complex algorithms work and to detect and correct errors in algorithms and programs efficiently.</p>
<p style="text-align: center;">Key vocabulary</p>	<p>Algorithm, instruction, order, debug, program, turn, left, right, clockwise, anticlockwise, blocks, sequence, project, repeat, repeat forever, invisible, grow, shrink.</p>	<p>Algorithm, instruction, order, debug, program, turn, left, right, clockwise, anticlockwise, blocks, sequence, project, repeat, repeat forever, invisible, grow, shrink.</p>	<p>Decompose, decomposing, logical sequence, flowchart, sprite, block, command, algorithm, answer, correct, errors, program, algorithm, instructions, commands, forward (fd), left (lt), right (rt), move, turn, clear screen (cs), variable</p>	<p>Decompose, decomposing, logical sequence, flowchart, sprite, block, command, algorithm, answer, correct, errors, program, algorithm, instructions, commands, forward (fd), left (lt), right (rt), move, turn, clear screen (cs), variable</p>	<p>Flowchart, algorithm, control, output, symbol, start, stop, delay, process, decision, loop, backdrop, script, block, repeat, commentary, sequence, consequence, debug, program, Kodu, world, object, tool palette, program environment, smooth, flatten, raise.</p>	<p>Flowchart, algorithm, control, output, symbol, start, stop, delay, process, decision, loop, backdrop, script, block, repeat, commentary, sequence, consequence, debug, program, Kodu, world, object, tool palette, program environment, smooth, flatten, raise.</p>