

Computing

Computing is a skill children will use for the rest of their lives. At Blue Coat children will learn:

- How to stay safe when using a Computer and what to do when they encounter unsafe situations through Digital Literacy lessons
- Become familiar with key computing programmes and tools to enable the confident use of computers across the both curriculum and life outside of school while creating a foundation for later life in Information Technology
- Deepen understanding of the importance of programming (coding) and how to gain the skills to love and use coding during Computer Science

Progression of Skills

Computing Skill	Year 3 /4	Year 5 / 6
Computer Science	Children build on their programming skills by solving problems and programming commands to achieve a specific outcome. They begin to write programs, explain algorithms and identify errors in their work. KS2 Computing National Curriculum Children design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; they solve problems by decomposing them into smaller parts. They use sequence, selection, and repetition in programs and work with variables and various forms of input and output. They use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs. Children can: - a use logical thinking to solve an open-ended problem by breaking it up into smaller parts; - b write a program, putting commands into a sequence to achieve a specific outcome; - c give a set of instructions to follow and predict what will happen; - d keep testing a program and recognise when it needs to be debugged; - e use variables to create an effect, e.g. repetition, if, when, loop; - f use key vocabulary to demonstrate knowledge and understanding in this strand: decompose, decomposing, logical sequence, flowchart, sprite, block, command, algorithm, answer, correct, errors, program, algorithm, instructions, commands,, variable.	Children build on their programming skills They continue to break down problems and create algorithms to solve them. They are able to explain the outcome of an algorithm with confidence and accuracy. KS2 Computing National Curriculum Children design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; they solve problems by decomposing them into smaller parts. They use sequence, selection, and repetition in programs and work with variables and various forms of input and output. They use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs. Children can: - a use external triggers and infinite loops to demonstrate control; - b follow a sequence of instructions - c use conditional statements and edit variables; - d decompose a problem into smaller parts to design an algorithm for a specific outcome and use this to write a program; - e keep testing a program and recognise when it needs to be debugged; - f use key vocabulary to demonstrate knowledge and understanding in this strand: flowchart, algorithm, control, output, symbol, start, stop, delay, process, decision, loop, backdrop, script, block, repeat, sequence, consequence, debug, program.

Digital Literacy

Children become more aware of their digital footprint by reflecting on their experience on the internet. They are able to understand more about age-appropriate websites and adverts and how adverts are used by companies. Children are also introduced to the concept of plagiarism. Children refer to online safety rules when discussing technology in their lives. They are able to navigate between websites and use safe search terms on trusted search engines. They become more confident in using email for communication, including attaching and saving files from emails.

KS2 Computing National Curriculum

Children use technology safely, respectfully and responsibly. They recognise acceptable/unacceptable behaviour and identify a range of ways to report concerns about content and contact.

Children 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. They use search technologies effectively, appreciate how results are selected and ranked, and are discerning in evaluating digital content.

Children can:

- a reflect on their own digital footprint and behaviour online;
- b identify what is appropriate and inappropriate behaviour on the internet, recognising the term cyberbullying;
- c agree and follow sensible online safety rules, e.g. taking pictures, sharing information, storing passwords;
- d seek help from an adult when they see something that is unexpected or worrying;
- e demonstrate understanding of age-appropriate websites and adverts;
- f use key vocabulary to demonstrate knowledge and understanding in

this strand: safe, meet, accept, reliable, tell, online, trusted adult, information, safety, personal, internet, world wide web, communicate, message, social media, email, password, cyberbullying/bullying, plagiarism, profiles, account, private, public

Children can:

- a explain ways to communicate with others online;
- b describe the world wide web as the part of the internet that contains websites;
- c add websites to a favourites list;
- d use search tools to find and use an appropriate website and content;
- e use strategies to improve results when searching online;
- f use key vocabulary to demonstrate knowledge and understanding in this

strand: filter, Google, search engine, image, keyboard, email, subject, address, communicate, sender, safe, secure, internet, world wide web, social media.

Children are encouraged to identify online risks and share their knowledge of the risks and consequences for people online. They begin to think more critically about what they see online and look at the concept of fake news and false photographs.

Children can use safe search terms on trusted search engines, and evaluate websites based on layout and information. They become more confident in understanding Google rankings, adverts and the reliability of websites.

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Children can:

- a protect their password and other personal information;
- b be a good online citizen and friend;
- c judge what sort of privacy settings might be relevant to reducing different risks;
- d seek help from an adult when they see something that is unexpected or worrying;
- e discuss scenarios involving online risk;
- f use key vocabulary to demonstrate knowledge and understanding in this strand: spam, link, privacy, virus, scam, phishing, inbox, junk, sender, subject, secure, safe, account, online, private, social media, adverts, cyberbullying, reporting, anonymous, victim, fraud/fraudulent, policy, private/personal.

Children can:

- a search for information using appropriate websites and advanced search functions within Google;
- b use strategies to check the reliability of information (cross-check with another source such as books);
- c talk about the way search results are selected and ranked;
- d check the reliability of a website, including the photos on site;
- e tell you about copyright and acknowledge the sources of information;
- f use key vocabulary to demonstrate knowledge and understanding in this strand: world wide web, search, search engine, advanced search, results, Google, browser, terms of use, bias, authority, citation, plagiarism, source, website, secure, https, site, domain, website, browser, address bar.

ICT	Children begin to explore expressing information in tables, sorting and organising information for others to be able to understand. KS2 Computing National Curriculum Children select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information. Children develop their skills of formatting using keyboard commands, organising their work to demonstrate effect. In LKS2, they will have the opportunity to express themselves more through digital technology, Google Slides and posters. Children can: - a talk about the different ways data can be organised; - b sort and organise information to use in other ways; - c search a ready-made database to answer questions; - d use key vocabulary to demonstrate knowledge and understanding in this strand: Google Docs, insert, table. Children can: - b use appropriate keyboard commands to amend text on a device; - c use applications and devices in order to communicate ideas, work, and messages; - d save, retrieve and evaluate work, making amendments; - e insert a picture/text/graph/hyperlink from the internet or a personal file; - f use key vocabulary to demonstrate knowledge and understanding in this strand: 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, show windows, snipping tool, shift, undo, redo, menu, dictionary, highlight, cursor, toolbar, spellcheck.	Data Handling in UKS2 focuses on selecting the correct method to display data and using software such as spreadsheets. Children also learn how to check the accuracy of data and compare data for a specific purpose. KS2 Computing National Curriculum Children select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information. Children begin to look at new software, creating 3D models and learning how to orbit, zoom and develop their editing skills further. They become more confident in inserting links, images and formatting text to create effect. Children can: - a construct data on the most appropriate application; - b know how to interpret data, including spotting inaccurate data and comparing data; - c use keyboard shortcuts and functions to input data on spreadsheets and create formulas for spreadsheets; - d add data to an existing database; - e use key vocabulary to demonstrate knowledge and understanding in this strand: Google Docs, insert, table, spreadsheet, cell, row, column, formula/formulas, calculate, format, edit, insert, ascending, descending. Children can: - a use the skills already developed to create content using unfamiliar technology; - b select, use and combine the appropriate technology tools to create effect; - c review and improve their own work and support others to improve their work; - d save, retrieve and evaluate their work, making amendments; - e insert a picture/text/graph/hyperlink from the internet or personal file; - f use key vocabulary to demonstrate knowledge and understanding in this strand: window, layout, text, font, colour, format, heading, hyperlink, 2D shape, 3D shape, orbit, pan, zoom, eraser, dimension, measurement, guide.
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Curriculum Content Map 2026/27

Note: Digital Literacy to be referenced in every lesson through starter questions. Each year to have at least one stand-alone Digital Literacy lesson per year.

Yr.	Autumn	Spring	Summer
3	Developing ICT skills NC ref: select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information Content: select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information ● Create a class blog ● Email -replying to an email ● Touch Typing ● Spreadsheets using Google Sheets- create a graph ● Google Classroom ● DIGITAL LITERACY - Private and personal info Vocabulary: Log in, tab, websites, Space, backspace, delete, capital letters, £, undo button, highlight text, save document, save as PDF, bold, fonts, size, align text left right centre and justify, copy and pasting,, spell checker, insert pictures,compose, reply, add attachment, home/top/bottom rows, waffle Know: What the Home Row is	Using Vex-Go robots as inspiration for developing ICT Skills NC ref:select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs including controlling or simulating physical systems Content: ● Create advert using Google Slides ● Word Processing - Press Release ● Evaluation ● Touch Typing Vocabulary: Caps lock, shift to use symbols on top of a key, highlight text, double click to highlight single word, bold italic, underline, bullet and numbered points, insert picture, clip art, word art, home row Know: Which keys allow symbols to be typed Remember: How to effectively evaluation work Oracy:	Continue to develop ICT and Digital Literacy skills NC Ref:recognise common uses of information technology beyond school use and a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information Content: ● DIGITAL LITERACY - Spoof/fake websites ● DIGITAL LITERACY - Passwords ● Word processing - Changing case ● Typing Skills ● Branching Databases ● Create an Online safety poster using skills gained in ICT and knowledge learned in Digital Literacy Vocabulary: shift, spoof, fake, SPAM, algorithm Know: What a spoof or fake website looks like Remember: How to change case when typing Oracy: Social & Emotional: Listen actively, questioning and responding to others Cognitive: To offer opinions that aren't their own

	Remember: How to find Google Docs after logging in Oracy: Social & Emotional: Listen actively, questioning and responding to others Linguistic: To use specialist vocabulary To make precise language choices	Social & Emotional: To consider the impact of their words on others when giving feedback Cognitive: To be able to give supporting evidence Linguistic: To carefully consider the words and phrasing they use to express their ideas and how this supports the purpose of talk Physical: To consider how tone, volume and pace influence meaning	To be able to summarise a discussion Linguistic: To use specialist vocabulary To make precise language choices
4	Building on Y3 ICT Skills NC ref: select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information Content: select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information Revisit Y3 targets but in greater depth: • Create a class blog • Email- composing our own • Touch Typing • Spreadsheets using Google Sheets- including conditional formatting • DIGITAL LITERACY - Private and personal info Vocabulary: Log in, tab, websites, Space, backspace, delete, capital letters, £, undo button, highlight text, save document, save as PDF, bold, fonts, size, align text left right centre and justify, copy and pasting, lassoing and dragging, spell	Using Vex-Go robots as inspiration for developing ICT Skills NC ref:select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs including controlling or simulating physical systems Content: • Create advert using Google Slides • Word Processing - Press Release • Evaluation • Touch Typing Vocabulary: Caps lock, shift to use symbols on top of a key, highlight text, double click to highlight single word, bold italic, underline, bullet and numbered points, insert picture, clip art, word art, home row	Develop ICT skills by exploring branching databases and spreadsheets NC ref: select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information Content: • DIGITAL LITERACY - Plagiarism • Spreadsheets using Google Sheets • Branching Databases • Word processing- editing, hyperlinking Vocabulary: hyperlink, database, branch, plagiarism, chart, editing, Sheets, shortcut, Know: What plagiarism is Remember: How to use hyperlinks Oracy: Social & Emotional: To consider the impact of their words on others when giving feedback

	checker, insert pictures,compose, reply, add attachment, home/top/bottom rows, waffle Know: What the Home Row is Remember: How to find Google Docs after logging in Oracy: Social & Emotional: Listen actively, questioning and responding to others Linguistic: To use specialist vocabulary To make precise language choices	Know: Which keys allow symbols to be typed Remember: How to effectively evaluation work Oracy: Social & Emotional: To consider the impact of their words on others when giving feedback Cognitive: To be able to give supporting evidence Linguistic: To carefully consider the words and phrasing they use to express their ideas and how this supports the purpose of talk Physical: To consider how tone, volume and pace influence meaning	Cognitive: To be able to give supporting evidence Linguistic: To carefully consider the words and phrasing they use to express their ideas and how this supports the purpose of talk Physical: To consider how tone, volume and pace influence meaning
5	Develop ICT skills while researching and designing a Platform game NC Ref: select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information Content: • Research Platform Games • Evaluate good examples • Word Processing- Creating tables • Design of games • Search engines Vocabulary:Creating tables, filing in information, changing font, colour, size. Working collaboratively on one document, unique, hack, monitoring, authentication, and/or, bias. characters Know: What tools to use to narrow down a search	Developing Computer Science skills by coding a Maze game on Scratch Develop Computer Science skills by debugging own Maze Game NC ref: design, write and debug programs that accomplish specific goals;and solving problems by decomposing them into smaller parts use sequence, selection and repetition in programs; work with variables and various forms of input and output use search technologies effectively, be discerning in evaluating digital content Content: • Develop required Scratch skills • Using Scratch to code own Maze game • Evaluate and debug Scratch game Vocabulary: sprite, code, blocks, Scratch, debug, decomposition, motion, looks, sound, events, tutorial,, if/then, alteration, balance, online/offline	Develop ICT skills by ‘advertising’ own Maze Game NC ref: design, write and debug programs that accomplish specific goals;and solving problems by decomposing them into smaller parts use sequence, selection and repetition in programs; work with variables and various forms of input and output select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information Content: • Google Slides - Animated Advert • Create Digital Music to go with Game • DIGITAL LITERACY - Strong passwords • DIGITAL LITERACY - SPAM • DIGITAL LITERACY - photo alteration

	Remember: How to work collaboratively on a document with others Oracy: Social & Emotional: Listen actively for extended periods of time Linguistic: To use an increasingly sophisticated range of sentence stems with accuracy	Know: What decomposition is Remember: How to debug effectively Oracy: Social & Emotional: To speak with flair and passion Cognitive: To identify when a discussion is going off topic and be able to bring it back on track Linguistic: To use an increasingly sophisticated range of sentence stems with accuracy	Vocabulary: transpose, SPAM, points, slides, insert, image, publish, systems, analysis, evaluation, composition, decomposition Know: What SPAM is Remember: How to animate an advert on Google Slides Oracy: Social & Emotional: Listen actively for extended periods of time Cognitive: To be able to draw upon their knowledge of the world to support their own point of view and explore different perspectives To identify when a discussion is going off topic and be able to bring it back on track Linguistic: To use an increasingly sophisticated range of sentence stems with accuracy
6	Develop ICT skills while researching and designing a computer game with own choice of style NC Ref: select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information Content: • Search Engine validation of more than once source • Research Good examples of a variety of Scratch games • Design of Scratch game • Word processing - working collaboratively.	Developing Computer Science skills by coding and debugging a computer game with own choice of style on Scratch NC ref: use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs Content: • Develop needed skills on Scratch • Coding own game • Review work • Evaluate and debug Scratch game Vocabulary: sprite, code, blocks, Scratch, debug, decomposition, motion, looks, sound, events,	Develop ICT skills by 'advertising' computer game with own choice of style Further Computer Science skills by introducing Microbits/Python to explore coding beyond Scratch NC ref: 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 select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information Content: • Create Stop-motion style advert

	Vocabulary: validation, multiple, sponsorship, collaborative, privacy, digital services, search, and/or “ “, insert, cells, table, rows, columns, fake news, MSM, bias Know: What a good Scratch game looks like Remember: How to design a Scratch game Oracy: Social & Emotional: To use humour effectively To develop an awareness of group dynamics and invite those who haven't spoken to contribute Cognitive: To spontaneously respond to increasingly complex questions, citing evidence where appropriate Linguistic: To vary sentence structures and length for effect when speaking Physical: To adjust tone, volume and pace for a given purpose and audience	tutorial, gravity, if/then, alteration, balance, online/offline, independence, decomposition. Know: What decomposition is and how to use it Remember: How to develop our own skills Oracy: Social & Emotional: To use humour effectively Cognitive: To spontaneously respond to increasingly complex questions, citing evidence where appropriate Linguistic: To vary sentence structures and length for effect when speaking Physical: To adjust tone, volume and pace for a given purpose and audience	• Create own website using SITES • DIGITAL LITERACY - Media Stereotyping • DIGITAL LITERACY - Fake News • Understanding networks and changes in technology Vocabulary: network, site, stereotyping, bias, development, publish, debug. Know: What a network is Remember: How to respond to media stereotyping and bias Oracy: Social & Emotional: To use humour effectively Cognitive: To construct a detailed argument or complex narrative To assess different viewpoints and present counter-arguments To spontaneously respond to increasingly complex questions, citing evidence where appropriate Linguistic: To vary sentence structures and length for effect when speaking Physical: To adjust tone, volume and pace for a given purpose and audience
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