**At Brookside Primary School:**

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| **DIGITAL LITERACY** | **COMPUTER SCIENCE** | **INFORMATION TECHNOLOGY** | **ONLINE SAFETY** |
| Digital Literacy covers essentially most of ‘old’ ICT curriculum.  Children should know that technology is everywhere, be able to identify the technology they encounter and have a growing understanding as to how it works.  Children also need to know how to store and organise their files so that it can be easily found. | Computer Science is all about solving problems effectively with or without a computer.  Children are encouraged to think about the sequence of steps (an algorithm) needed to solve a problem and to use their technical skills to get the computer to implement our algorithm as code. They also need to be able to find mistakes and fix them (debugging). | Children in Key Stage Two (KS2) are also required to have the knowledge of networks such as the internet and how searches are performed. | Today’s children are growing up in a digital world. As they grow older it is crucial that they learn to balance the benefits offered by technology with the critical awareness of their own and others’ online behaviour and develop effective strategies for staying safe and making a positive contribution online. |
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| **Word Processing and Typing** | **Coding/Programming** | **Computer Networks** | **Online Safety** |
| **Presentations** |
| **Data Handling** |
| **Photography and Digital Art** |
| **Animation** |

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| **YEAR 6** | | | | |
| **Curriculum PROJECT** | **DIGITAL LITERACY** | **COMPUTER SCIENCE** | **INFORMATION**  **TECHNOLOGY** | **ONLINE SAFETY**  (KS2: 7) |
| **Autumn A**  Information Poster  (Port Sunlight)  (KS2: 4, 5, 6, 7) | I can confidently format text to suit purpose (align text, page layout, columns, watermarks, shapes and images) |  | I can use search technologies safely and effectively | I know similarities and differences between in-person and cyber bullying |
| **Autumn B**  Create an Interactive Presentation  (Energy)  (KS2: 6, 7) | I can use paint tools to make a drawing that fits a purpose  I can create an animation  that demonstrates the water cycle |  | I can use the internet to learn about Energy navigating between and evaluating a range of websites | I know good strategies to deal with cyber bullying |
| **Spring A**  Create a research presentation  (World War II)  (KS2: 4, 5, 6, 7) | I can create an interactive guide using hyperlinks and shortcut buttons  I can embed digital content, transitions, animation, sound and images |  | I can use search technologies effectively  I know how computer networks are connected together | I can identify secure websites by identifying privacy seals of approval |
| **Spring B**  Create an interactive map using Google Earth  (Charles Darwin)  (KS2: 6, 7) | I can create an interactive Google Earth project linking images and websites and videos from within Google Earth  I can record narration to support my Google Earth tour |  | I can safely (and legally) use the internet to collect images, text and links to information | I know the benefits and pitfalls of online relationships |
| **Summer A**  **Data handling** (Population Change)  (KS2: 6, 7) | I can input data into a spreadsheet and export data in a variety of ways: tables, charts and graphs |  |  | I know there is information that I should never share |
| **Summer B**  Espresso Coding  (KS2 1, 2, 3, 7) |  | **Espresso Coding Unit 6**   1. More Complex Variables 2. Object Properties |  | I can identify how the media play a powerful role in shaping ideas about girls and boys |

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| **YEAR 5** | | | | |
| **Curriculum PROJECT** | **DIGITAL LITERACY** | **COMPUTER SCIENCE** | **INFORMATION**  **TECHNOLOGY** | **ONLINE SAFETY**  (KS2: 7) |
| **Autumn A**  Understanding Search Engines  (KS2: 4, 5, 6, 7) |  |  | I know there are different search engines and they provide different services  I can find answers to specific questions using the internet  I can use the advanced search (Boolean operators) to refine my search results  I know the difference between fact and opinion on the internet  I can evaluate the reliability of websites | I can identify spam emails and what to do with them |
| Autumn B  Espresso Coding  (KS2: 1, 2, 3, 7) |  | **Espresso Coding Unit 5**   1. Speed, Direction and Co-ordinates 2. Random Number Simulation |  | I can write citations for the websites I use for research |
| Spring A  Create a collaborative project on Padlet  (Do oceans matter?)  (KS2: 4, 5, 6, 7) | I can collaborate with peers using online tools (Padlet)  I can insert images, text and video to a collaborative project |  | I can use the advanced search features of Google e.g. placing a sentence within quotation marks will search for the exact phrase  I understand that servers on the internet are located across the planet. | I know how to create strong passwords |
| **Spring B**  Create a Scratch Game  (Space)  (KS2: 1, 2, 3, 7)  Workshare |  | I can design backgrounds and sprites  I can create controls for movement left and right  I can create a routine that allows my character to interact with other objects  I can change timings to alter the speed of the object |  | I recognise when, why and how photographs we see online may have been edited |
| **Summer A**  Google Earth Project (Comparing biomes around the Earth)  (KS2: 5, 6, 7) | I can explore 2 locations using Google Earth, collecting facts on both  I can log into a blog and make my first post  I can insert text and images into a blog |  |  | I can apply online safety rules to real-life scenarios |
| **Summer B**  Create a research presentation  (Maya and Anglo-Saxons)  (KS2: 5, 6, 7) | I can create an interactive presentation including a variety of media, sound, transition and other effects |  |  | I can apply online safety rules to real-life scenarios |

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| **YEAR 4** | | | | |
| **Curriculum PROJECT** | **DIGITAL LITERACY** | **COMPUTER SCIENCE** | **INFORMATION**  **TECHNOLOGY** | **ONLINE SAFETY**  (KS2: 7) |
| **Autumn A**  Animation (Digestive System/Food Faces)  (KS2: 6, 7) | I can create a simple stop motion animation |  |  | I can identify how a message can hurt someone’s feelings |
| **Autumn 2**  Scratch Game  (Science – Electricity)  (KS2: 1, 2, 3, 7) |  | I can create a background and sprite for my game.  I can create variable that can be altered when the user gets a correct answe |  | I know how I should respond to a hurtful message online |
| **Spring A**  Espresso Coding  (KS2: 1, 2, 3, 7) |  | **Espresso Coding 4**   1. Introduction to variables 2. Repetition and Loops |  | I can use a search engine accurately |
| **Spring B**  **Rainforest Explorers**  Branching Databases  (KS2: 5,6, 7) | I can create a branching database |  |  | I know the term ‘plagiarism’ and how to avoid it |
| Summer A  Tourist Guide to Britain (Vikings)  Photo Editing – children paste themselves onto a photo  (KS2: 4, 5, 6, 7) | I can confidently and regularly use text shortcuts for **CUT, COPY**, **PASTE**  and **DELETE** to organise text (Ctrl X, Ctrl C and Ctrl V)  I can edit the style and effect of my text and images to make my document more engaging and eye-catching (font, colour, borders, shadows, word art, text boxes, layout |  | I can use search technologies safely and effectively | I know how to create a safe online profile |
| I can edit a picture to remove items, add backgrounds and merge two photos |
| **Summer B**  Information Poster  (KS2: 4, 5, 6, 7) | I can use **spell check** and **thesaurus** to edit and improve my work.  I can edit the style and effect of my text and images to make my document more engaging and eye-catching (font, colour, borders, shadows, word art, text boxes, layout) |  | I can use search technologies safely and effectively | I know how to be a responsible digital citizen |

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| **YEAR 3** | | | | |
| **Curriculum PROJECT** | **DIGITAL LITERACY** | **COMPUTER SCIENCE** | **INFORMATION**  **TECHNOLOGY** | **ONLINE SAFETY**  (KS2: 7) |
| **Autumn A**  Create a presentation about food imports, air miles or food sources  (KS2: 5,6,7) | I can SAVE my work to the school network  I can confidently order slides (images and text) to create a simple story board. |  |  | I know what cyber bullying is and how to address it |
| **Autumn B**  Scratch Game  (Set in Stone)  (KS2: 1, 2, 3, 7) |  | I know the Scratch Interface  I know what a sprite is  I can create a stage for my game to take place  I can write a script to hide an object  I know the conditional "IF" statement |  | I know how websites use advertisements to promote products |
| **Spring A**  Create an animal and animal habitat montage  (KS2: 5,7) | I can enhance digital images and photographs using crop, brightness, contrast and resize  I can confidently cut out an image to layer on another image |  |  | I can create strong passwords and understand privacy settings |
| **Spring B**  Espresso Coding  (KS2: 1, 2, 3, 7) |  | **Espresso Coding 3**   1. Sequence and Animation 2. Conditional Agreements |  | I know how to safely send and receive emails |
| **Summer A**  Create a photo-orienteering course (using google maps and digital photography)  (KS2: 6,7) | I can confidently take and manipulate photos  I can create a digital image using a range of tools (autoshapes) |  |  | I know the different ways children can communicate online |
| **Summer B**  **(Who’s the Mummy?)**  Create a holiday advert/poster  (KS2: 5,6,7) | I can edit the style and effect of my text and images to make my document more engaging and eye-catching (font, colour, borders, shadows, word art, text boxes, layout) |  |  | I know the different ways children can communicate online |

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| **YEAR 2** | | | |
|  | **DIGITAL LITERACY** | **COMPUTER SCIENCE** | **ONLINE SAFETY**  (KS1: 6) |
| **Autumn A**  Developing Basic Skills  (KS1 4, 6) | I can add a speech bubble to an image to show what a character is thinking (linked to History or Literacy)  I can use CAPS LOCK for Capital Letters |  | I know that the information I put online leaves a digital footprint |
| **Autumn B**  Record and enter data (temperatures) into a data handling package  Use data to create graphs  (KS1: 4,5,6) | I can create a bar chart/pictogram to show different types of data (Create a Graph)  I can input DATA in a variety of ways  I know how data is collected |  | I can use keywords in an online search to find out about a topic |
| **Spring A**  Program a ‘bee-bot’ to move to the correct location (Airport)  (KS1: 1,2,3,6) |  | I can debug programs of increasing complexity  I can use logical reasoning to predict the outcome of simple programs | I know whether a website is appropriate for children |
| **Spring B**  Espresso Coding  (KS1: 1,2,3,6) |  | **Espresso Coding Unit 2**   1. Buttons and Instructions 2. Different Sorts of Input | I can identify kind and unkind behaviour online |
| **Summer A**  Create a montage of members of the Monarchy  (themes within eras)  (KS1: 4,6) | I can edit a photograph (crop and filters)  I can select and use tools to create digital imagery (rotate, re-size) |  | I can apply my knowledge of safe and sensible online activities to different situations |
| **Summer B**  Create a holiday brochure to encourage people to visit the coast  (KS1 4,6) | I can type longer passages into a digital device with accurate, age-related punctuation  I can COPY and PASTE images and text |  | I can apply my knowledge of safe and sensible online activities to different situations |

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| **YEAR 1** | | | |
|  | **DIGITAL LITERACY** | **COMPUTER SCIENCE** | **ONLINE SAFETY**  (KS1: 6) |
| **Autumn A**  Introduction to Algorithms  (KS1: 1,2,3,6) |  | **Algorithms**  (Physical movements – Beebots introduced in Spring A)  I can give and follow instructions for directions, left, right, turn, forwards, backwards  I know what algorithms are | I can create, name and date my digital creative work |
| **Autumn B**  Making a Christmas Card | I can use the SPACE bar (to make space), DELETE button (to delete letters) and ENTER (to make a new line)  I can insert pictures into a presentation |  | I can safely search for images online |
| **Spring A**  Create a UK map with instructions for bee-bot to reach different destinations  (KS1: 1,2,3,6) |  | **BeeBots – Introduction of Beebot equipment**  I can give and follow instructions for a Beebot for directions, left, right, turn, forwards, backwards  I know what algorithms are | I know how to communicate safely online |
| **Spring B**  Create a poster about how toys how changed  (KS1: 4,5,6) | I can use the SPACE bar (to make space), DELETE button (to delete letters) and ENTER (to make a new line)  I can insert pictures into a presentation  I can PRINT my work |  | I know what personal information I need to keep safe |
| **Summer A**  Create a factsheet about Shanghai  (KS1: 4, 6) | I can use the SPACE bar (to make space), DELETE button (to delete letters) and ENTER (to make a new line)  I can insert pictures into a presentation  I can add a label to my image  I can PRINT my work |  | I know how to use email to safely |
| **Summer B**  Espresso Coding  (KS1: 1, 2,3,6) |  | **Espresso Coding Unit 1**   1. On the Move 2. Different Sorts of Input | I can apply my online safety knowledge to help others make good choices online |

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| **EARLY YEARS FOUNDATION STAGE** | | | | | |
| The Early Years Foundation Stage (EYFS) framework is structured very differently to the national curriculum as it is organised across seven areas of learning rather than subject areas. At Brookside Primary School, we use prerequisite skills for COMPUTING from the 2020 Development Matters document and the Statutory EFYS Framework document. The most relevant statements for computing are taken from the following areas of learning: Personal, Social and Emotional Development (PSED), Physical Development (PD), Understanding the World (UtW) and Expressive Arts and Design (EAD) | | | | | |
| **NURSERY** | | **RECEPTION** | | **EARLY LEARNING GOAL** | |
| **Personal, Social and Emotional Development** | Remember rules without needing an adult to remind them | **Personal, Social and Emotional Development** | Show resilience and perseverance in the face of a challenge.  Know and talk about the different factors that support their overall health and wellbeing: sensible amounts of ‘screen time’. | **Personal, Social and Emotional Development** Managing Self | Be confident to try new activities and show independence, resilience and perseverance in the face of challenge.  Explain the reasons for rules, know right from wrong and try to behave accordingly |
| **Physical Development** | Match their developing physical skills to tasks and activities in the setting. | **Physical Development** | Develop their small motor skills so that they can use a range of tools competently, safely and confidently. | **Expressive Arts and Design**  Creating with Materials | Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function |
| **Understanding the World** | Explore how things work | **Expressive Arts and Design** | Explore, use and refine a variety of artistic effects to express their ideas and feelings |  |  |