**Skills Progression Grid: Computing**

|  | EYFS | YEAR 1 | YEAR 2 | YEAR 3 | YEAR 4 | YEAR 5 | YEAR 6 |
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| **Digital Literacy** | I can complete a simple programme on a computer. | Children will learn to:   * Switch on a computer * log onto a computer * Use a mouse or touchpad to move, drag and click * Open a programme * Use the keyboard to type letters * Delete letters * Save a document * Open a saved document from a file. | Children will learn to:   * Identify examples of computers * Use IT in a number of different ways | Children will learn to:   * Identify input and output devices * Design a digital device * Send information between devices. | Children will learn to:   * Share information across a network. * Follow safer internet practices. * Create content online | Children will learn to:   * Refine internet searches * Search the internet using a search engine or the address bar. * Create web pages that would be highly ranked in a search engine. | Children will learn to:   * Use a domain name server (DMS) to translate web addresses into IP addresses. * Transfer images, text and other types of data over the internet. * Complete online collaborative projects. * Reusing and modifying other’s work online. |
| **Creating Media** | To turn on and off simple sound and video equipment e.g CD player. | Children will learn to:   * Make marks on a screen, understanding how that mark was created and what tools were used. * Create digital pictures using shapes and colour. * Understand what paint tools do. * Choose appropriate paint tools. * Make comparisons between digital and real paintings. | Children will learn to:   * Create rhythmic patterns using a digital device. * Use a computer to manipulate sounds. * Refine musical patterns on a computer. | Children will learn to:   * Create a flip-book * Create a stop-frame animation. * Use ‘onion skinning’ to make small changes between frames. | Children will learn to:   * Record audio using a computer. * Trim , layer and align recordings using audio editing software * Create and edit a podcast including sound effects. | Children will learn to:   * Record videos using a digital device. * Experiment using different camera angles. * Re-record and edit video recordings. | Children will learn to:   * Select and move 3D shapes using a CAD programme. * Manipulate digital 3D objects by resizing, lifting and lowering them. * Rotate, duplicate, group and ungroup digital 3D objects, * Construct a 3D model using a CAD programme |
| **Computer Science** | I can use ICT to interact with age appropriate software.  To use technology in play for a specific purpose e.g turning on the microwave to warm food. | Begin to give commands including straight forwards/ backwards/ turn one at a time.  Understand what algorithms are; how they are implemented as programs on devices and that programs execute by following precise and unambiguous instructions. | Create and debug simple programmes.  Use logical reasoning to predict the behaviour of simple programmes. | Begin to design write and debug programs that accomplish specific goal  To solve problems by decomposing them into smaller parts  Beginning to use sequence, selection and repetition in programs | To confidently design , write and debug programs that accomplish specific goal  To confidently use sequence, selection and repetition in programs  To use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs. | To design, write and debug programs that accomplish specific goals; including controlling or stimulating physical systems and solving problems by decomposing them into smaller parts.  Use sequence, selection and repetition programs by working with variables and various forms of input and output | To design, write, review and debug programs that accomplish specific goals; including controlling or stimulating physical systems and solving problems by decomposing them into smaller parts.  To use logical thinking and reasoning to debug own and peer work. To provide a purpose of thinking.  To create a programme by using the skills above. |
| **Data Handling** | To be able to order different key events.  To tally a choice of interest as a class. | I can talk about the different ways in which information can be shown. I can use technology to collect information, including photos, video and sound. I can sort different kinds of information and present it to others. I can add information to a pictograph and talk to you about what I have found out. | I can talk about the different ways I use technology to collect information, including a camera, microscope or sound recorder. I can make and save a chart or graph using the data I collect. I can talk about the data that is shown in my chart or graph. I am starting to understand a branching database. I can tell you what kind of information I could use to help me investigate a question. | I can talk about the different ways data can be organised. I can search a ready‐made database to answer questions. I can collect data to help me answer a question. I can add to a database. I can make a branching database. I can use a data logger to monitor changes and can talk about the information collected. | I can organise data in different ways. I can collect data and identify where it could be inaccurate. I can plan, create and search a database to answer questions. I can choose the best way to present data to my friends. I can use a data logger to record and share my readings with my friends.  I can tell you whether a resource I am using is on the internet, the school network or my own device.  I can identify key words to use when searching safely on the World Wide Web.  I think about the reliability of information I read on the World Wide Web.  I can tell you how to check who owns photos, text and clipart. I can create a hyperlink to are source on the World Wide Web. | I can use a spread sheet and database to collect and record data. I can choose an appropriate tool to help me collect data. I can present data in an appropriate way. I can search a database using different operators (filters) to refine my search. I can talk about mistakes in data and suggest how it could be checked. | I can plan the process needed to investigate the world around me. I can select the most effective tool to collect data for my investigation. I can check the data I collect for accuracy and plausibility. I can interpret the data I collect. I can present the data I collect in an appropriate way. I use the skills I have developed to interrogate a database |
| Online Safety  ***(Safer Internet Day – Time For Us Day – Spring 1)*** | To understand the importance of permission from a trusted adult when accessing digital content online at home and in school. | If something happens which makes me feel sad or worried, I know what to do.  As a class to come up with rules that will keep me safe online. | I know what I should and should not put online without a trusted adult.  I can understand why the content I produce belongs to me.  I can create rules which will help me stay safe online a home and in school. | To understand that people can try to make you feel sad, upset or embarrassed online and what you can do if you feel like this.  To be able to write for the correct purpose online. To know when it is ok to use ‘text language’ and when it is not. | To recognise when someone is hurt, upset or angry online and what they can do.  I can understand the term ‘digital footprint’ and how this may impact me.  To understand the importance of personal details and why this should be kept private. | To describe some strategies on the affect of healthy sleep in regards to technology.  I can identify online bullying and understand what to do if I/.or someone I know experience this.  To create strong passwords and understand the importance of this. | To be confident in using social media safely and appropriately.  I can evaluate digital content; explain key concepts including data, information, fact, opinion, valid, reliable and evidence.  I can explain and identify why some information online may not be honest. |
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