

KPS – Computing Progression of Skills

| | Yr 1/2 | Yr 1/2 | Yr 3/4 | Yr 3/4 | Yr 5/6 | Yr 5/6 |
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| E-Safety | <p>Children know to speak to a known/trusted adult when they see something unexpected or worrying online.</p> <p>Children know that they need to follow the school's e-safety rules to remain safe online.</p> <p>Children understand that they should not share personal information online.</p> <p>Children begin to explore how email can be used to communicate with real people within their schools, families & communities.</p> | <p>Children stay safe online by choosing suitable websites (supported by staff).</p> <p>Children explore what cyber-bullying means & what to do when they encounter it.</p> <p>Children begin to recognise that not all information online is real/ accurate.</p> | <p>Children know that if they put information online it leaves a digital footprint, or "trail" & they need to manage it so it's not hurtful</p> <p>Children understand that keyword searching is an effective way to locate online information & how to select keywords to produce the best search results</p> <p>Children discuss criteria for rating informational websites a site.</p> | <p>Children agree sensible e-safety rules for the class.</p> <p>Children choose a secure password for age-appropriate websites, ie Scratch.</p> <p>Children can articulate what actions could be taken if they are uncomfortable or upset online e.g. Report Abuse button/ speak to an adult.</p> | <p>Children can talk about what games they enjoy playing and what good choices are when playing games e.g. content, screen time.</p> <p>Children comment and provide positive feedback on the work of classmates on Seesaw? If still using this?</p> | <p>Children use a class blog to share information and talk about who can see it, and how to communicate safely and respectfully.</p> <p>Children understand the negative effects of too much screen time (link to PSHE mental health lesson)</p> |

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| <p style="writing-mode: vertical-rl; transform: rotate(180deg);">Programming</p> | <p>Children physically follow & give each other instructions to move around.</p> <p>Children explore outcomes when buttons are pressed in sequences on a robot.</p> <p>Children begin to use software to create movement & patterns on a screen.</p> <p>Children can set a simple program on a floor robot.</p> | <p>Children begin to identify an algorithm to achieve a specific purpose.</p> <p>Children can give each other forward, backward & turn instructions.</p> <p>Children plan and enter a sequence of instructions to achieve an algorithm, with a robot specifying distance & turn and drawing a trail.</p> <p>Children can explore outcomes when giving instructions in a simple Logo program. They can talk about de-bugging and can predict problems.</p> | <p>Children can create an algorithm for a specific purpose.</p> <p>Children can create a simple input sequence in a program such as Scratch.</p> <p>Children can input an algorithm into a program, ie Scratch.</p> <p>Children are able to create sequences in the algorithm, for example turn right/stand etc</p> | <p>Children are able to include everyday repetition in their algorithm.</p> <p>Children can count control loops within the algorithm (loop 3 times, jump)</p> <p>Children are able to include repetition and indefinite loops in their algorithm.</p> | <p>Children can create everyday algorithm condition-start-actions within their code.</p> <p>Children can set the everyday algorithm condition to switch between actions.</p> <p>Children can use selection in a loop, for example if Kingsclere badge appears then character returns to start of maze.</p> | <p>Children can use basic procedures within their code.</p> <p>Children can include nested loops in their code.</p> <p>Children can add variables as placeholders and within their algorithms.</p> <p>Children add variables to store and change numbers within algorithms.</p> |
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| Handling Data | Children take photographs, video and record sound. | Children can take and save photographs, video & record sound. | Children record data in a variety of ways. | Children plan and create a database to answer questions. | Children collect and record information using spreadsheets and databases. | Children analyse information and question data. |
| | Children begin to understand what data is and how it might be stored. | Children consider how they will collect information, data, generate graphs and charts to find answers. | Children explore a pre-prepared database, asking simple questions. | Children identify different types of data. | Children carry out complex searches (e.g. using and/or \leq / \geq) | Children identify poor quality data. |
| | Children contribute to and interpret a pictogram. | Children can save & retrieve the data to show to others. Investigate different types of digital data e.g. online encyclopedias | Children contribute towards creating a database. | Children carry out simple searches on a database, identifying inaccurate data. | Children solve problems and present answers using data tools. | Children select appropriate use of a data logger for an investigation and interpret the findings |
| | | | Children create paper decision trees & explore a branching database. | Children can present data in appropriate format for an audience. | | |
| | | | Children use a data logger to monitor changes and talk about the outcomes that they have observed. | Children use a data logger to record and compare individual readings. | | |
| | | | | Children construct and use a branching database. | | |

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| Technology in our lives | <p>Children recognise uses of technology in their homes and in their community.</p> | <p>Children begin to understand there are a variety of sources of information and begin to recognise the differences.</p> <p>Children have some understanding of what the Internet is and the purposes that it is used for.</p> <p>Children understand the different types of content on websites and that some things may not be true or accurate.</p> | <p>Children save work on the school network, on the Internet and on individual devices.</p> <p>Children can name the parts of a computer.</p> <p>Children use appropriate tools to communicate on-line.</p> <p>Children understand about ownership of information.</p> | <p>Children can talk about the school network & the different resources they can access, including the Internet.</p> <p>Children frame questions & identify key words to search for information on the Internet.</p> <p>Children can consider reliability of information & ways it may influence them.</p> | <p>Children can identify different parts of computing devices.</p> <p>Children can choose appropriate tools for communication and collaboration and use them responsibly.</p> <p>Children use effective strategies to search with appropriate search engines.</p> <p>Children can talk about the different elements on web pages.</p> <p>Children can check who the owner is before copying photos, clipart or text.</p> | <p>Children can describe different services provided by the Internet & how information moves around the Internet.</p> <p>Children connect a computing device to a keyboard, mouse or printer.</p> <p>Children use search engines as part of an effective research strategy.</p> <p>Children describe how search results are selected & ranked.</p> <p>Children can acknowledge who resources belong to that they have found on the internet.</p> |
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| Multimedia | <p>Children can record their own voices and play back to an audience.</p> | <p>Children use an increasing variety of tools and effects in paint programs and talk about their choices.</p> | <p>Children can create and begin to edit presentation documents & text, experimenting with fonts, size, colour, alignment for emphasis & effect.</p> | <p>Children can consider appealing to their audience when creating documents.</p> | <p>Children can select the appropriate ICT or online tool to create and share ideas.</p> | <p>Children can discuss audience, atmosphere and structure of a presentation or video.</p> |
| | <p>Children can use a video or stills camera to record an activity.</p> | <p>Children explore the effects of sound and music in animation and video.</p> | <p>Children use a range of effects in art programs including brush sizes, repeats, reflections.</p> | <p>Children are confident in creating & modifying text & presentation documents to achieve a specific purpose.</p> | <p>Children know the effects of multimedia (photos, video, sound) in a presentation or video and show how they can be modified.</p> | <p>Children collect information and media from a range of sources (considering copyright issues).</p> |
| | <p>Children can create sounds and simple music phrases using ICT tools.</p> | <p>Children can create their own documents, adding text and images.</p> | <p>Children explore the use of video, animation & green screening.</p> | <p>Children can modify photos for a specific purpose, using a range of effects.</p> | <p>Children use a wide range of effects in art programs and online tools – they can discuss/explain their choices and evaluate them.</p> | <p>Children use sound, images, text, transitions, hyperlinks, and HTML code effectively in presentations.</p> |
| | <p>Children add text and images to a template document using an image & word bank.</p> | <p>Children can use the keyboard to enter text (index fingers left & right hand).</p> | <p>Children use ICT tools to create musical phrases Amend text & save changes.</p> | <p>Children explore the use of video, animation, & green screening for a specific audience.</p> | <p>Children know how to use text and video editing tools in programs to refine their work.</p> | <p>Children evaluate the effectiveness of their own work and the work of others.</p> |
| | <p>Children use index fingers (left and right hand) on a keyboard to build words & sentences Know when & how to use the SPACE BAR (thumbs) to make spaces between words.</p> | <p>With support, children can create sentences, save and edit later.</p> | <p>Children can look at their own work and consider how it can be improved for effectiveness.</p> | | <p>Children use online tools to create and share presentations and films.</p> | |
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