



BREW

B: Can technology support our beliefs? **R:** Do we all have a right to access computing technology? **E:** Is the use of technology beneficial for our environment? **W:** What are the positives and negatives for using technology to support our wellbeing?

| <p>EYFS Nursery Reception</p> | <p>Children are exposed to what media technology is. With guidance, children will be able to become familiar with iPads, laptops and certain apps. Children are exposed to what video technology is. With guidance, children will become more familiar with how to take a video and be in a video. Children should be able to practically sort objects into appropriate groups. Children will be exposed to technology and given the opportunity to explore it. They should be exposed to keyboards and allowed provision for finding numbers and sounds. Children will begin to learn the basics of what online safety is and how to say no. Children will begin to understand what makes people sad or happy online. They will begin to identify ways of communicating online (video chat, texting, phone calls) and also identify some personal information. Children will become familiar with robots and how they move. Children should begin to learn about how computers need instructions to work.</p> | | | | | |
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| | Multimedia Text and Images | Multimedia Sound and Motion | Data Handling | Information Technology | Digital Literacy/Online Safety | Computer Science - Coding and Programming |
| <p>Year 1</p> | <p>Children begin to understand the particular purposes technology can be used for and that by adding text and images you can communicate with technology.</p> | <p>Children begin to develop their creativity using technology through recording sound. Children will be more confident with the video creation process. Children will begin to learn how to edit a video and use specific tools.</p> | <p>Children begin to develop their ability in expressing information in tables. Children should be introduced to the 'tables' tool in Microsoft word. With adult support, children should attempt to input data into a chart. Children should begin to understand how different charts can be easier to understand than others.</p> | <p>Children begin to make links to how they use technology outside of the classroom. Children will develop their keyboard, keypad and mouse skills, before beginning to use a piece of word processing software. Children will begin to name the main parts of a computer.</p> | <p>Children begin to consider their activity on the internet. They will also compare appropriate and inappropriate activity on the internet and decide what to do next. Children will be able to identify personal information and describe ways to keep it safe.</p> | <p>Children begin to understand their influence on technology by developing their programming skills to determine output. Students will learn to program using commands like loops and events. The lessons featured in this course also teach students to meaningfully collaborate with others, investigate different problem-solving techniques. They will begin to understand that an algorithm is a series of steps for solving problems. Children should become familiarised with the coding terminology.</p> |
| <p>Year 2</p> | <p>Children will be able to use and create a piece of digital art linking to a topic. They will be able to use shapes, images and text to bring meaning to their art.</p> | <p>Children develop their creativity using technology through recording layered sound. Children will develop their video editing skills by adding more than one video. Children will begin to learn how to edit a video and use specific tools.</p> | <p>Children develop their ability in expressing information in tables and charts. Children should start to become familiar with the 'tables' tool in Microsoft word. Children should develop their understanding of how different charts can be easier to understand than others.</p> | <p>Children will learn how to apply information technology with new or familiar programs and understand that some websites are not legitimate. They will learn to create, organise, store, manipulate and retrieve digital content. They will learn the functions of different keys on a keyboard. Children will be able to identify and recognise examples of information technology in and around school.</p> | <p>Children are able to explain what is appropriate information to be sharing and to name people to discuss unsafe behaviour with. They will be able to identify and discuss the difference between online and in person identities and how online relationships can be deceiving. Children will begin to understand what owning digital content looks like.</p> | <p>Children will have a clearer understanding of what an algorithm is and begin to make predictions in order to debug software. Children should continue to become more familiar with coding terminology. Children will learn through more sophisticated unplugged activities and work through a greater variety of puzzles. Students will learn the basics of programming, collaboration techniques, investigation and critical thinking skills.</p> |
| <p>Year 3</p> | <p>Children develop their skills of formatting using a few keyboard shortcut commands, presenting and organising their work to demonstrate effect. Children will have the opportunity to express themselves more through digital art/media. Children will use specified apps and functions on the iPad or laptop to enhance their work.</p> | <p>Children develop their editing skills further by cropping, organising and arranging film clips. They are able to share work and offer feedback and ideas for improvement. Children begin to look at the history of animation and discuss the differences between then and now.</p> | <p>Children continue to develop their knowledge of presenting information in tables using pictographs, bar charts and tally charts. They should develop their knowledge of sorting and organising information for others to be able to understand clearly.</p> | <p>Children will develop their keyboard and mouse skills to use more frequent right clicks on the mouse. They will broaden their knowledge of word processing document features such as undo, redo, spell check and copy and paste. They will be able to confidently retrieve work from a safe stored space. They will be able to search and use safe websites and know what can be used for direct communication. Children will begin to understand how devices are connected through a network connection and that they are made up of multiple devices.</p> | <p>Children become more aware of their digital footprint by reflecting on their experience on the internet and they will be able to explain what cyberbullying is. They will be able to explain how their online presence can affect them and others. They are able to understand more about age-appropriate websites, apps and adverts and how adverts are used by companies. They will be able to explain about gaining permission for sharing information and who to get permission from. Children will also become more confident in identifying when they have the right to use information found online.</p> | <p>Children build on their programming skills by solving problems and programming commands to achieve a specific outcome. They begin to write programs, confidently explain algorithms and identify errors in their work. Children will create programs with sequencing, loops, and events. Children will create interactive games that they can share. Children will be able to confidently apply terminology to explain their work.</p> |



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| <p>Year 4</p> | <p>Children broaden their keyboard skills by using more keyboard shortcuts for easier effort. Children will be able to edit their work to demonstrate effect and to deepen meaning. Children will be able to use specified apps and functions on the iPad or laptop to enhance their work.</p> | <p>Children develop their editing skills further by cropping, organising and arranging film clips. They are able to share work by air server and offer feedback and ideas for improvement with animation and film, giving their opinion on which software and tools to use. Children continue to look at the history of animation and film and reflect upon the changes over time.</p> | <p>Children continue to develop their knowledge of presenting information in tables, sorting and organising information for others to be able to understand. Children should be able to begin to describe why they have presented their work in a particular chart.</p> | <p>Children will be able to transfer their knowledge of word processing documents to another software to produce more in-depth work. They will be able to upload and attach documents to communication sites like Gmail. Children will be able to confidently use safe searching methods and discuss if websites look legitimate. They will begin to use Gmail or an online platform for communication. Children will be able to explain that the internet is what connects many services worldwide</p> | <p>Children will be able to explain what online consent is and who to ask for permission if unsure. They will be able to explain the positives and negatives of changing online identities dependent on the platform. Children will be able to explain how content shared online may create different emotions for others and the impact it can have for their online reputation. Children should be made aware of how online information can be copied and shared without permission. They will be able to explore what fair use of online content is.</p> | <p>Children will be able to confidently create a code and explain their reasons for their choices. They will continue to broaden their knowledge of coding tools; algorithms, nested loops, while loops, conditionals, and more. Children will be able to apply their knowledge between different programmes and software. Children will be able to transfer their computing skills to unplugged activities and give clear reasoning for their choices.</p> |
| <p>Year 5</p> | <p>Children begin to look at new software, creating 3D models and learning how to zoom and develop their editing skills further. They become more confident in inserting links, images and formatting text/media to create effect.</p> | <p>Children begin to look more into multimedia broadcasting, learning new skills including recording jingles, podcasts and narration. They become more confident in post-production with editing, trimming and refining their work based on plans they have made.</p> | <p>Children focus on selecting the correct method to display data and using software such as spreadsheets. Children should be able to have an analytical understanding of which data presentation methods they have chosen and why. Children will also learn how to check the accuracy of data and compare data for a specific purpose.</p> | <p>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. They will be able to explain how computers communicate with other devices and identify the tasks that are managed by a computer system.</p> | <p>Children are encouraged to identify online risks and explain the consequences for people online. They will begin to think more critically about what they see online and look at the concept of fake news and false photographs. They should begin to become familiar with how to block and report content they see online if they deem it inappropriate and if it goes against community standards. Children are also introduced to the concept of plagiarism and citation. They should become familiar with how app and websites on the network can share and use private data (i.e. location). They will be able to explain the risks of not properly protecting information online.</p> | <p>Children embed their programming skills by creating independent games through their knowledge of nested loops, functions, and conditionals. They are able to explain the outcome of an algorithm with confidence and accuracy. Children will be able to make educated predictions based on what they need their code to do and are able to debug any errors.</p> |
| <p>Year 6</p> | <p>The Year 6 Multimedia Text and Images curriculum must include a recap of key skills that have been learned and developed throughout Years one to five. To consolidate the children's knowledge, they must produce a project comprising all the previously taught skills. Children should independently choose the most effective tools to present information through text and images for a specific purpose.</p> | <p>The Year 6 Information Technology curriculum must include a recap of key skills that have been learned and developed throughout Years one to five. To consolidate the children's knowledge, they must produce a project comprising all the previously taught skills. Children should independently choose the most effective tools to present information for a specific purpose</p> | <p>The Year 6 Data Handling curriculum must include a recap of key skills that have been learned and developed throughout Years one to five. To consolidate the children's knowledge, they must produce a project comprising all the previously taught skills. Children should independently choose the most effective tools or database to present information for a specific purpose</p> | <p>The Year 6 Information Technology curriculum must include a recap of key skills that have been learned and developed throughout Years one to five. To consolidate the children's knowledge, they must produce a project comprising all the previously taught skills. Children should independently choose the most effective tools to present information for a specific purpose. Children will be able to recognise the importance of agreed protocols for communicating with other devices. They will be able to describe how computers use addresses to access websites.</p> | <p>Children will be able to identify ways people can be in harm on media and the impact social media can have on society. They will be able to discuss how their online reputation can affect them and that information shared online will always be accessible. They will be able to critically evaluate online content relating to gender, race, religion, disability, culture and other groups, and explain why it is important to challenge and reject inappropriate representations online. Children will be able to explain how having up to date software is important for digital safety of information. Children will be able to identify and name appropriate adults and support agencies when they encounter any form of cyber bullying/trolling.</p> | <p>The Year 6 coding and programming curriculum must include a recap of all skills that have been developed throughout Years 1-5. The children will be given autonomy and more choice to create an interactive project to share with their friends and family. Children will be able to critically analyse their work in order to think like a computer programmer.</p> |