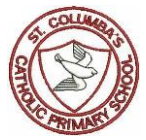


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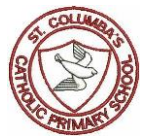


Computing Whole School Content and Progression

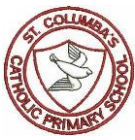
Strand	Nursery	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Mandatory Skills	<p>Show curiosity in using digital devices</p> <p>Understand that digital content can be watched on a device, eg ipad</p> <p>Begin to use ipads/cameras To take pictures</p>	<p>Complete the basics with Technology, e.g. switch devices on and off and use equipment safely.</p> <p>Go online with support.</p> <p>Use a simple digital camera/ iPad app to take pictures and demonstrate some basic techniques.</p>	<p>Demonstrate basic skills on an iPad or computer</p> <p>Take good quality photographs and videos using an iPad or digital camera</p>	<p>Children learn to save, share and retrieve digital work.</p> <p>Use technology to organise and present own ideas.</p>	<p>Show independence and attempt to fix a problem they may have before asking for help (troubleshooting)</p> <p>Discuss different types of digital content and file types, e.g. jpeg, MP4</p>	<p>Label the different types of input connections on devices, eg USB,HDMI</p> <p>Explain common file types and choose the best way to save their files. E.g. as an image (jpeg) to share online.</p>	<p>Children can make QR codes that link to their own work.</p> <p>Film and produce a short video.</p>	<p>Collaborate to create digital content.</p> <p>Create a consistent design for my presentation, and present to others.</p>



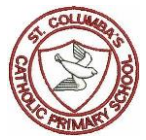
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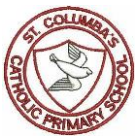
Strand	Nursery	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Computer Science	<p>Follow a simple instruction</p> <p>Sequence a series of events</p> <p>Use a programmable toy</p>	<p>Explain an Algorithm, e.g. understand that an algorithm is a list of instructions that solves a problem.</p> <p>Sequence a series of events and explain the importance of sequencing (putting things in order).</p> <p>Give instructions to a programable toy.</p>	<p>Follow a simple algorithm and create a simple sequence algorithm using symbols that solve a problem.</p> <p>Create algorithms that can be turned into a program using a robot or digital device.</p> <p>Debug simple sequence errors in a program.</p> <p>Use logical reasoning to predict the outcome of simple programs.</p>	<p>Plan out an algorithm with a sequence of commands to carry out specific tasks</p> <p>Identify 'bugs' in computer programs and use the term debug in context.</p> <p>Create a simple repeat loop, e.g. on Scratch</p> <p>Add small non critical adaptations to improve the game/program. E.g. Add extra movement or audio.</p> <p>Predict the outcome of a sequence of blocks in Scratch</p>	<p>Plan, create and debug programs.</p> <p>Use decomposition to help solve computing problems.</p> <p>Use sequence, selection, repetition and variables in programs.</p> <p>Work with various forms of input and output.</p> <p>Use logical reasoning to predict and correct errors in algorithms and programs.</p> <p>Explain how the internet works.</p> <p>Explain how a search engine works.</p>	<p>Design an algorithm to simulate a real-life situation.</p> <p>Solve an open-ended problem by breaking it up into smaller parts.</p> <p>Design and write a program for a given purpose including specific programming features, eg by using Scratch.</p> <p>Test existing programs to see how they could be improved.</p> <p>Understand the different methods of communication using the internet, eg. The World Wide Web and email.</p>	<p>Decompose a problem, design an algorithm and use this to write a program.</p> <p>Design and write a program linked to physical systems and sensors,.</p> <p>Use variables, conditional statements, procedures & repeat commands to improve programs.</p> <p>Use logical reasoning to detect & debug a program.</p> <p>Explore networks and internet traffic, e.g use a trace root tool.</p> <p>Translate binary numbers to decimal.</p> <p>Create a basic web page using HTML.</p>	<p>Design, plan & create complex programs.</p> <p>Test, debug and modify a program to improve it.</p> <p>Write a program using a text based programming language. e.g. Python, Javascript.</p> <p>Use logical reasoning to detect and correct errors in algorithms and programs.</p> <p>Understand how computer networks work, including the internet.</p> <p>Talk about the way search results are selected and ranked.</p>



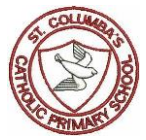
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Strand	Nursery	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Information Technology	Be aware of technology around the environment	Select and use technology for particular purposes.	<p>Children use technology to create and present their own ideas.</p> <p>Children organise and store their digital work.</p> <p>Use technology to collect information, such as, photos, video or sound and store it.</p>	<p>Create a presentation or basic digital book that is well designed and has images included</p> <p>Collect and record data purposefully.</p> <p>Create with technology. E.g. Video, animation, 3D</p>	<p>Children can improve the quality and presentation of their work, e.g. by adding text, graphics and sound.</p> <p>Create with technology. E.g. Video, animation, 3D</p> <p>Collect, analyse, evaluate and present data and information.</p> <p>Use advanced search tools such as filtering results on a search engine.</p>	<p>Improve the quality and presentation of work using editing and formatting techniques.</p> <p>Use a range of media to create with technology E.g. Video, animation, 3D, art packages</p> <p>Use a search engine and be aware that not everything read online is correct showing awareness of online bullying</p>	<p>Improve the quality and presentation of work by adding animations and links to slides.</p> <p>Record and produce a podcast / audio clips.</p> <p>Use unfamiliar technology to create content, E.g. virtual reality, digital music etc</p> <p>Use a spreadsheet to collect and record data.</p> <p>Check the reliability of information on the internet and make more advanced searches.</p>	<p>Create and combine a range of media in order to produce digital content.</p> <p>Improve the quality and presentation of work by using text, photo, sound and video editing tools etc.</p> <p>Create a digital storyboard to plan a project or investigation.</p> <p>Children use a search engine and are aware that not everything online is correct and that other people may be attempting to influence people's opinions.</p>



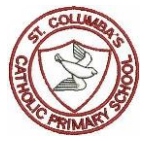
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Strand	Nursery	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Digital Literacy	<p>Recognise some uses of IT around them.</p> <p>Begin to recognise that people can communicate using technology, eg phone.</p> <p>Understand a search engine can be used to find information</p> <p>Begin to understand how to stay safe in and around the home with technology</p> <p>Begin to know that work they create with technology belongs to them.</p>	<p>Recognise common uses of information technology beyond school.</p> <p>Understand that people can talk to each other (communication) online.</p> <p>Begin to use a search engine with support e.g. Google</p> <p>Give some simple examples of online safety rules.</p> <p>Understands that online content such as video, images, websites and games are created and shared by people.</p>	<p>Recognise the ways we use technology in our classroom, my home and community.</p> <p>Use a search engine.</p> <p>Understand something online may upset and know where to find help it anything does,</p> <p>Communicate politely via the internet.</p> <p>Understand that once something it posted you lose control if it and know how to get help if needed.</p> <p>Give examples of online bullying behaviour, understand the impact it may have and know where to go for support.</p> <p>Use a search engine and be aware that not everything you read online is true.</p> <p>Know the rules of using technology at</p>	<p>Give examples of how technology is used to communicate beyond school.</p> <p>Understand that somethings online may upset people and that you cannot trust everyone online.</p> <p>Use online services to communicate safely.</p> <p>Understand that once something it posted you lose control if it and know how to get help if needed.</p> <p>Give examples of online bullying behaviour, understand the impact it may have and know where to go for support.</p> <p>Use a search engine and be aware that not everything you read online is true.</p> <p>Know the rules of using technology at</p>	<p>Know how to use the internet and what a URL is.</p> <p>Analyse information and make accurate searches.</p> <p>Understand the need for copyright and the consequences of ignoring it.</p> <p>Children should be aware of what they should be sharing online and where to go for help if needed.</p> <p>Children understand that they cannot trust everyone they talk to online.</p> <p>They should be a good digital citizen and know where to go for help if something upsets them online.</p> <p>Children can explain what bullying is and know where to go</p>	<p>Collaborate online to create digital content.</p> <p>Children evaluate information presented to them to make informed choices about what is Fake News.</p> <p>Children describe strategies for safe and fun experiences in a range of online social environments and be respectful to others online.</p> <p>Children understand that people may have a different online identity to that in real life and they are able to interact with others.</p> <p>Be aware others can find information out about ourselves by searchingonline.</p>	<p>Access school email and send emails to classmates and teacher.</p> <p>Create a subject specific vlog/video and understand the potential risks of sharing content online.</p> <p>Collaborate to develop & improve work.</p> <p>Search for someone online and create a summary report about that person</p> <p>Children make a positive contribution to their online community and are aware that there are people online who may try toupset them or their group of friends.</p>	<p>Children can explain how to protect their computer or device from harm on the Internet.</p> <p>Children can support their friends to protect themselves and make good choices online, including reporting concerns to an adult.</p> <p>Children are aware of the ways in which the media can shape our ideas about gender.</p> <p>Children are aware that if they need help they keep asking for it until they get help.</p> <p>Be aware of the need for positive online relationships and be mindful of others feelings at all times</p> <p>Children understand they need to create a positive online</p>



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		<p>Know the rules of using technology at home or in school.</p> <p>Explain what personal information is and give examples of it. aware that content online is owned by the person that created it.</p>	<p>home or in school.</p> <p>Explain what personal information is and understand the need for passwords to protect it.</p>	<p>for help.</p> <p>Children understand the impact technology can have on their health, well being and lifestyle.</p> <p>Children know who they should be sharing information with and how to keep their data secure.</p> <p>Understand the term identity and can take appropriate measures to protect their own online identity.</p>	<p>Children know which technologies are used for online bullying and are considerate of others when posting themselves</p> <p>Children understand the impact technology can have on their health, well being and lifestyle and they can discuss the positive and negative effects.</p> <p>Be aware that some people want to access personal data and we can take appropriate measures to ensure this doesn't happen.</p> <p>Understand the need for copyright and the consequences of ignoring it. (Copyright)</p>	<p>Children understand the impact online bullying can have and know what to do if they are the victim or witness online bullying.</p> <p>Children can discuss the importance of choosing an age-appropriate website or game.</p> <p>Create strong passwords and understand the real cost of some apps.</p> <p>Be aware that a person's identity can be copied by other users and take appropriate measure to minimise the risk of this happening.</p>	<p>reputation.</p> <p>Children know how to capture evidence of online bullying and how to report it.</p> <p>Children know how to keep their data private and secure.</p> <p>Describe some of the effects that too much screen time could have on children.</p> <p>Make informed judgements on the suitability of the content of games for a given age range.</p>
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