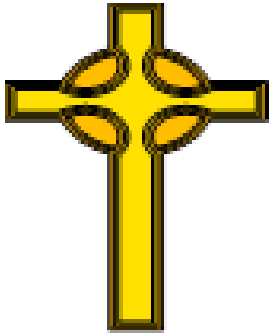
Holy Cross Catholic Primary School



Computing Progression Map

2025 - 2026

We care, we share, we value.

	Autumn Term	Spring Term	Summer Term
EYFS	**Digital Literacy** **"My Online Life"** •To recognise and discuss common uses of information technology in school and outside of school. •To recognise that there are many different types of media content including; sound, images, books, podcasts/ audiobooks and video via the web. •To know that the Internet can be used to communicate with others. •Understand simple online safety rules. •To know that people create online content such as video and websites	**Computer Science** **"Beats & Rhythms"** •To learn that an algorithm is a list of instructions that solves a problem •To sequence a series of events and explain the importance of sequencing. •To experiment controlling a range of 'toys' using remote controls and do this with purpose and direction. •Through play about action/reaction and will be asked "what do you think will happen?" when using technology or attempting to solve a problem. •To access the web on a classroom device •Through play learn about action/reaction and will be asked "what do you think will happen?" when using technology or attempting to solve a problem. •How to access the web on a classroom device. •To type keywords in a search engine (Google)	**Information Technology** **"Animal Safari"** •Learn how various devices and apps can be used in the classroom. •To independently choose an application for a particular purpose. e.g. drawing a picture. •To type keywords in a search engine (Google).

Year 1	**Digital Literacy** **"My Online Life"** • To learn about the uses and purpose of technology in the classroom, at home, work and the world around them. • To learn about some of the common ways in which technology at home can be used.	**Computer Science** **"My friend the Robot"** • To explore algorithms and sequencing of instructions. • To read, follow and create a simple sequence algorithm. • To give instructions so that they can be executed by a robot with the aim of successfully reaching a destination. • To create a simple program and correct mistakes (debug). • To make predictions when using technology. • To learn about signing into a device or online platform. • To learn how they can use a search engine to find answers and different types of media e.g. videos.	**Information Technology** **"Mini-Beasts"** • To create different types of digital content (short video, ebook or presentation). • To combine text and images in a document that showcases learning or tells a story. • To use technology to collect, sort and display information that could include data, photos, video or sound. • To understand about saving work in a special place and retrieve it again. how they can use a search engine to find answers and different types of media category.

	Digital Literacy "My Online Life"	Computer Science "Making Games"	Information Technology "Presentations and Typing"
Year 2	• To know about the numerous methods of online communication and how it is used in the world around them. • To explore their own use of the internet and why it is important to stick to the rules. • To know where different types of media content can be found online. Including; sound, images, books, podcasts/ audiobooks and video via the web. • To know about safe and unsuitable sites/apps. e.g. PEGI rating. • To know to talk to a trusted adult before sharing personal information online and using strong passwords. • To know that the characters and people they interact with may be computer generated / including games. • To know the differences between the Internet and the physical world. • To know how to send a message and why it is important to communicate in a polite manner. • To know that login details and passwords should only be shared with trusted adults. • To now that copyright is something that prevents people stealing other people's work (content). • To know what personal information is and that they need to talk to a trusted adult before sharing online. • To know how some information may be inaccurate or untrue.	• To learn about writing algorithms that can be turned into programs. • To implement algorithm as a program on a digital device or programmable toy/ robot • To independently identify and fix a 'bug' in multiple programs. • To create a simple program that includes a repeat x times loop. • To know the difference between inputs and outputs. • To offer accurate predictions of programs and then create a simple program to check if predictions were correct. • To know that multiple services use the internet e.g. email, web and streaming • To know the basic skills of searching and navigating the results in a search engine.	• To create a presentation or basic digital book that is well designed, contains formatted text, images and presents information. • To read a simple database to find information. about organising the data collected. • To create digital content using more than one app or piece of software. • To independently save and open files on the device they use. • To know the basic skills of searching and navigating the results in a search engine to answer questions.

	• To independently use a search engine, navigate a website, use favourites, bookmarks or typing the URL. • To know that you can be connected to many people in life (real life and online). • To ensure a trusted adult is aware of who they are interacting with online. • To explain some of the potential risks when posting something to the internet. • To now that once something is posted others can read the post and share it.		

	Digital Literacy "My Online life"	Computer Science "Programming With Robots"	Information Technology "T-Shirt Designer"
Year 3	• How to make judgements about the usefulness and accuracy of information. • To learn about the term 'fake news' and about what copyright is, why we have copyright laws and to recognize copyright material. • To know the SMART rules about using the internet safely and responsibly. • What personal information is and what they shouldn't be sharing. • To know that they should pause before posting and consider the potential consequences. • To know who they should seek help from about online concerns. • To know the correct and sensible choice when presented with hypothetical scenarios. • How to send and reply to online messages, such as email, respectfully and understand the difference between online and face-toface. • How to use the safety features of websites as well as reporting concerns to an adult they trust. • To know what online bullying/cyberbullying is and some of the forms it can take and how to report any concerns and who they consider a trusted adult. • To now that they need to have a balanced approach to their use of technology and to make good choices about how long they spend online.	• To create a detailed flow diagram using the correct symbols. • To turn an algorithm into a simple program on a digital device. • To test the program and recognising when it needs to be debugged. • To create their own sprite in Scratch/Scratch Jr. • To learn about sequencing commands and adding a repeat command in a program. • How to refine/improve a program by using the repeat command. • How to create a variable. • How to create a program that contains selection, inputs and outputs. • To use logical reasoning to detect potential problems in an algorithm or program which could result in something going wrong and then offer ideas of what is needed to fix/debug it. • To know that the World Wide Web is only one part of the Internet, the part that contains websites. • To send an email and understand how this works. • How information travels through computer networks. • That search engines try to put the most useful websites at the top.	• To create digital content using a range of mixed tools/media and how to improve its design. • To be creative and independent while using unfamiliar apps or technology to create content. • To create a plan/storyboard when producing digital content. • To design a simple questionnaire to collect information, and display the information in a graph or table. • To add information to a database. • To know that the top search results can be manipulated and are based on things like most popular, recently updated. • To know about filtering results by adding more detail or using advanced tools. • To use search engines to collect information.

	• To recognise websites and games appropriate for their age. e.g. PEGI rating and know that online accounts need to be signed in to and why passwords should never be shared. • To know what makes a secure password and why they are important and that they know how to use a password security checking tool. • To know what represents an online identity e.g. images, username, information shared and digital footprint. • To only post positive comments online.		

	Digital Literacy "My Online Life"	Computer Science "Inventors and Designers" (MicroBits).	Information Technology "Endangered Animals"
Year 4	• To learn to differentiate between apps that use the Internet, the school network or that are self-contained on a • device. • To use computing to communicate and collaborate. • To learn about documents and methods of collaboration over the internet e.g. blog. • To understand more about what Fake News is, it's purpose and that Fake News can be found on all media. • To learn how to identify Fake News and that data can be manipulated to make Fake News appear to be true. • To understand the potential risks and ways they can protect themselves and friends from harm online. • To learn about the safety features of websites and apps. e.g. block or report and that they should report concerns to a trusted adult. • To understand that the Internet is a great place to develop rewarding relationships. • To not reveal private information to a person they know only online and that that friends/followers profiles may not reflect the truth about their real lives. • To know the term 'digital footprint' and that the information they put online leaves a digital footprint or "trail" which can be positive and negative. • To know how to search for their own	• To design a simple algorithm to show a real- life situation. • To understand about the valuable skills of abstraction and decomposition when tackling more complex problems. • To learn about the structure of a program and learn to plan in logical, achievable steps. • To write a complex program, incorporating features such as selection, inputs, repetition, variables and procedures. • To attempt to debug their own programs and corrects/debugs errors in code. • To recognise an error in an existing program and attempt to debug/fix the program. • To investigate existing programs, evaluating them and consider how they could be improved. • To learn about the key services that can be used to communicate on the internet. • To recognise the main components (hardware) which allow computers to join and form a network. • To know that search engines use algorithms to sort websites.	• To produce documents, media and presentations with increasing independence and competency that present data/information. • To use a keyboard confidently and make use of tools such as spellchecker. • To learn about new forms of technology E.g. AR, Virtual Reality, Wearable Technology etc. • To search for and use information from a range of sources. • To learn about making notes from information found on websites to present their findings. • To recognise that not all sources of information including websites are accurate and can check information using a different sites.

	name and usernames in Google to test their digital footprint. • To know how they should act appropriately & respectfully online. • To know how to deal with online bullying. • To recognise how photos can be altered digitally and the creative upsides of photo alteration, as well as its power to distort perceptions of beauty and health. • To know why copyright laws exist and presenting others work as one's own is called plagiarism. • To understand that they can use a copyright free image gallery, or they can change the search criteria. • To know the positive and negative effects technology may have on their health. • To know why they need to ask a trusted adult before downloading files and games from		

	Digital Literacy "My Online Life"	Computer Science "Lost IN Space"	Information Technology "Making AR Games"
Year 5	• To demonstrate and explain the importance of communicating kindly and respectfully. • To learn about the negative online behaviours such as bullying, trolling, griefing and harassment. • To learn about empathy and the effects of online bullying and that anything they post online can be seen, re-shared, re-used and may have a negative effect on others. • To learn about the 'Digital 5 a Day' plan and that they need to have a balanced approach to their use of technology. • To know what makes a secure username and password. • To know why people set up fake accounts or copy others identities. • To know what an online identity or internet persona is, e.g. social identity in online communities and websites (Facebook, Instagram, YouTube etc) including photos and posts. • To know how to avoid being tricked by scammers online. e.g. Phishing emails. • To explain why an app may be free but have in-app-purchasing and what that is.	• To explore problem solving and decomposition. • To independently plan, write and test their algorithms and create more complex programs, debugging as needed. • To learn about controlling / simulating physical systems and using sensors with multiple outcomes. • To create their own complex game within Scratch or other block based coding app that uses variables, event handling, selection ("If" and "Then"), procedures and repetition (loops) to increase programming possibilities. • To explore logical reasoning in greater depth and learn to give wellthought-through explanations of any errors they identify in program code (using the correct terminology). • To learn about software, hardware and types of connected computers and how data travels via the internet including binary. • To learn more about the different parts of the Internet and services and to create a basic web page using HTML • To learn key skills for using a search engine and the settings that can alter search results.	• To produce digital content in a given format e.g. podcasts, videos, AR, virtual reality, 3D, digital music or illustrations. • To learn about planning including elements that they may need to source from other services. • To build on the skills they have already developed to create content using unfamiliar technology. • To use a spreadsheet/database to collect, record data and to use simple formulae. • To learn about different online communication tools/apps and how they could be used for different purposes e.g. work and social. • To learn about working in a group using collaborative tools. • To learn how and why information found on some sites will be biased. • Learn how to source copyright free materials to use in their digital projects. • How to credit the use of websites in their work and why this should be done.

	Digital Literacy "My Online Life"	Computer Science "Fun with Code and Electronics"	Information Technology "VR Worlds"
Year 6	• To learn about digital crimes and threats that might exist online. E.g. worms, trojans, viruses, spyware, ransomware and malware. • To learn about anti-virus software and how they can help protect devices from infection. • To know about advanced web terminology e.g. firewall, security updates, pop up blocker, scams, phishing, HTTPs, location based settings, in app purchasing, trolling, filtering etc. • To explore in more depth the legal and moral reasons not to plagiarise or infringe copyright and the impact it can have on the creator of the content. • To learn about the advice they should/would give friends about making good choices online and the consequences of making poor online choices. E.g. Online bullying, Inappropriate comments (racially or sexually • orientated), uploading inappropriate material (adult / illegal / antisocial), accessing inappropriate sites (anti-social or illegal behaviour / adult content) and breaching copyright laws. • To understand the way men and women can be stereotyped in movies and TV. • To know when to seek help from a trusted adult and not to try and deal with online situations on their own.	• To create complex algorithms and turn their designs into a program (incorporating variables, procedures and different forms of input and output). • To know about complex programs and are encouraged to persevere when solving difficult problems even if the solution is not obvious. • About executing and adapting common commands using a text-based language e.g. Python/Javascript/SwiftPlayground. to independently • To use logical reasoning to detect and correct errors in an algorithm and program. • To recognise that there is often more than one way to solve a problem in an algorithm or program. • To learn in more detail about how information/data is transported on the Internet and between computers using packets and IP addresses. • To learn about the opportunities computer networks and the internet offer for communication and collaboration. • To explore advanced features within search engines and learn to use them effectively. • To know how search results are selected and ranked by algorithms.	• To learn how to create digital storyboards with a complete narrative of the project or investigation. • To confidently identify the potential of unfamiliar technology to increase their creativity. • To source, store and combine copyright free images from the internet. • To independently select, use and combine the appropriate technology/app tools to create effects that will have an impact on others and tell a story. • To use complex searches, filters and advanced tools to find, select and use information.

	• To know how to block and report inappropriate comments or behaviour online. • How to maintain healthy positive relationships with others while online. • To recognise behaviours and strategies to prevent and stop online bullying. • To know and list the websites and agencies they can contact in case they need help. • To know what steps they can take to create a 'positive online image' including defining acceptable and unacceptable online behaviour and the benefits this will have to them now and in the future.		