St Thomas More Catholic Primary School Curriculum

To provide opportunities that enable our children to have the skills, knowledge, understanding, confidence and desire to achieve the highest standards of which they are capable. Enabling them to play an active part as responsible and caring members of the school community and beyond.

Humanities			Arts & Culture				Sciences			
History	Geography	Languages	Art & Design	RE	PSHE	Music	Science	PE	Computing	DT

Computing

A St Thomas More Computing child will demonstrate:

• Competence in coding for a variety of practical and inventive purposes, including the application of ideas within other subjects.
• The ability to connect with others safely and respectfully, understanding the need to act within the law and with moral and ethical integrity.
• An understanding of the connected nature of devices.
• The ability to communicate ideas well by using applications and devices throughout the curriculum.
• The ability to collect, organise and manipulate data effectively.

Supporting community priorities:

- Being language rich
- Cultural and creative experiences
- Enjoying the outdoors and appreciating the locality

Year		Topic	Goals	Anchor	Goldilocks	Step On
EYFS	A	**Big question:** Can you use the paint app to draw yourself? **Topic: I am special**	**Continuous Provision** Digital Literacy Children will be familiar and know how to use simple games on the interactive whiteboard and I-pads such as paint.	Mouse Keyboard Share Screen	Choices Internet Website Images	Technology
	S	**Big question:** Can you programme the Bee-bots to help the penguin find his way home? **Topic: Frosty and Frozen/Out of the Egg**	**Continuous Provision** Programming Children will know how to programme remote-control toys such as beebots	Count Choices Buttons	Create Movement Technology	Organise
	S	**Big question:** Can you create a video recording of a story or adventure? **Topic:** Once upon a time	**Continuous Provision** Digital Literacy Children will be able to video each other re-telling core texts.	Create Share	Organise	

			Digital resilience Children are aware of sharing images and information safely.	Internet Screen		
Y1	A	**Big question -** Can you design a poster to help the Monkey find his mum? **Topic:** Monkey Puzzle.	Digital Literacy Children will use various aspects of using a computer to create and change texts. Children will familiarise themselves with typing on a keyboard and begin to use tools to change the look of their writing, considering the differences between using a computer and writing on paper to make a text.	Computer/iPad Screen Keyboard	Information Text Object	Word bank Website content
	S	**Big question:** Can you help the Naughty Bus to stay safe online? **Topic:** The Naughty Bus	Digital Literacy Children will understand what technology is and how it can help them. They will become more familiar with the components of a computer, develop their keyboard skills and start to consider how to use technology responsibly outside of school.	Information Videos Camera Computer/ipad Screen Keyboard	Website content	Data collection digital footprint
	S	**Big question:** Can you create an algorithm and navigate a Bee-Bot around your secret garden? **Topic:** The Secret Garden	Programming Children will develop their understanding of instructions in sequences and use logical reasoning to predict outcomes. They will design algorithms and then tests these as programmes and debug them.	Object Information	Debugging Program	Run (execute)
Y2	A	**Big question -** Can you create a piece of music for a regal event? **Topic: Turrets and Tiaras**	Programming Children will use digit tools to create different rhythms and tunes using the movement of kings and queens for inspiration. (Chrome music lab)	Sequence Property Technology Search bar Debugging Program	Run (execute)	Algorithm
	S	**Big question** - Can you explain how technology has changed since the great Fire of London? **Topic - Flames and Fevers**	Digital Resilience Children will look at IT in the home and places in the world such as shops, libraries and hospitals. They will also discuss responsible uses of technology and how to make smart choices when using it.	Technology Property	Animation Graphs Charts digital footprint	information technology
	S	**Big question**: Can you create a simple programme for an underwater scene? **Topic**: **Deep down under**	Programming Children will begin to understand that sequences of commands have an outcome and will make predictions based on their learning. Through 'tinkering' and debugging simple programs. (scratch Jr)	Run (execute) Program Forward Backward Right angle turn	Code Command Data Animation	Algorithm

				Sequence Predict Save	Retrieve	
Y3	A	**Big question -** Can you create a branching data base for animals in the rainforest? **Topic: Who's who under the canopy**	Programming Children will develop their understanding of what a branching data base is and how to create one. They will use yes/no questions to gain an understanding of what attributes are and how to sort them into groups, creating an on-screen branching database. (https://www.j2e.com/j2data) (TeachComputing)	Sequence Instructions Test and improve Repeats Code Run (execute) Debugging	Algorithm Programming Data collection	Amend Copy Paste
	S	**Horrid Henry:** Can you explain what a computer is and the risks posed by online communications? (Bullying, Hurtful language, digital footprint)	Digital Resilience Children will develop their understanding of digital devices learning about inputs, processes and outputs and understanding computer networks. (TeachComputing)	Owner Appropriate online communication digital footprint	Multimedia Database	Computer networks Input Output
	S	**Big question**: Can you create an information poster on Peterborough? **Topic – I love where I live**	Programming Children will use desktop publishing software to create their own poster. They will add text, considering choices of font size, colour and type and add images to create their own pieces of work using desktop publishing software. They will look at historical maps, considering the growth of the city over time.	Collaborate Reflections Presentations Multimedia	Copy Paste	Shortcuts
Y4	A	**Big question;** Can you explain what the internet is and create a presentation on the Victorians? **Topic:** Rags to riches	Digital Resilience Children will learn that the world wide web is part of the internet and be given opportunities to explore the world wide web themselves. They will evaluate online content to decide how honest, accurate or reliable it is and understand the consequences of false information. Use software to create a presentation on the Victorians.	WiFi Website Web page Procedure Digital device	WWW (World wide web) Copyright Web browser Web address	Reliability Owners Database searches WAP (Wireless Access Point)
	S	**Big question** Can you create shapes and patterns using repetition? **Topic:** Law and order	Programming Children will look at **repetition** and loops in programming using Scratch. They will create programmes by planning, modifying and testing commands to create shapes and patterns. (TeachComputing)	Sequence Instructions Test and improve Repeats Code Run (execute) Debugging Repetition Copy	Algorithm Programming Owners	Bugs in programmes

				Paste		
	S	**Big question:** Can you analyse data? **Topic- Up up and away.**	Digital Literacy Children will collect sound data using data loggers and analyse the results using a range of programs.	Primary / secondary data Test and improve Run (execute)	Owners Sequence Reliability	variables
Y5	A	**Big question:** Can you work collaboratively on an online project about the trip to the Space Centre? **Topic** – Sea of Tranquility	Digital Literacy / Digital Resilience Children will develop their understanding of computer systems and how information is transferred between systems and devices. They will take part in a collaborative online project with other class members and develop their skills in working online together.	Switch (network switch) Network Internet Input	Stored (data) Browser	Collaboration Complex searches Present data
	S	**Big question:** Can you create a Viking/Angelo Saxon quiz on Scratch using selection?	Programming Children will learn about **selection** and how conditions can be used in programmes using the If… Then… Else… structure to select different outcomes depending on whether a condition is true or false. They will write programmes using selection to control outcomes to design a quiz.	Selection Repetition Process Algorithm	Variable Present data	Hyperlinks
	S	**Big question:** Can you make a video about the Egyptians?	Programming Children will learn how to create short videos in groups. They will be exposed to topic-based language and develop the skills of capturing, editing and manipulating. iPad – iMovie app (TeachComputing)	Input Output Process Browser Web browser Web address Reliability Owners	Software Server	Store, retrieve, and export
Y6	A	Big question: Can you create a game in scratch? **Topic: Magic, Mystery or Mayhem?**	Programming Children will learn the concept of variables in programming through games in scratch, using **variables** to create a score board during their game. (TeachComputing)	Generate Process Loop Hyperlink Variable Algorithm	Appropriate data tool	initialisation

				program		
	S	Can you explain how search engines work? Can you make a website on World War 2? **Topic: Answering the call**	<u>Digital Resilience</u> Children will learn how search engines work, how they select and rank results and what influences searching. Children will identify what makes and good webpage and use this information to design and evaluate their own website using Google Sites. Throughout the process, children will pay specific attention to copyright and fair use of media, the aesthetics of the site and navigation paths. Google sits for webpage layout (TeachComputing)	Present Information Interrogate Investigations Reliability Web browser Web address	Hyperlink Plausibility Store, retrieve and export	Subroutine HTML (Hypertext Markup Language) URL (Uniform Resource Locator)
	S	Big question: Can you use spreadsheets to present weather data? **Topic: Answering the call**	<u>Digital Literacy</u> Children will use spreadsheets to organise weather data. They will learn how to organise data into columns and rows, learn the importance of formatting data to support calculations and be introduced to formulas. (TeachComputing)	Present Information Algorithm Cell Format	Appropriate data tool Formula Calculate	collecting, analysing, evaluating, and presenting data