



St Thomas More Catholic Primary School

I.T. Across the Curriculum

The following objectives cover the Information Technology aspect of the Computing curriculum and are to be integrated into other areas of the curriculum once every term.

The document ensures that children have the opportunity to learn the following objectives over the course of their primary education:

Key Themes			
<u>Key knowledge & skills</u>	<u>Gathering information</u>	<u>Presenting information</u>	<u>Images</u>
<ul style="list-style-type: none">- Saving work- Retrieving work- Folder organisation- Sharing work- Evaluating work	<ul style="list-style-type: none">- Search tools- Polls- Forms- Docs- Mind-maps	<ul style="list-style-type: none">- Docs (Y1)- Slides (Y2 - 6)- Data & graphs (Y3, Y5)- Videos (Y4 - 6)- Web page (5)- Blogging (5/6)- Podcasts (6)	<ul style="list-style-type: none">- Photos- Editing

By the end of KS2, children will become digitally literate – able to use, and express themselves and develop their ideas through, information and communication technology – at a level suitable for the future workplace and as active participants in a digital world.



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IT Across the Curriculum - Year 1

Term	Objectives	Software and Devices	Suggested Curriculum Outcomes (Select 1-2)
Autumn	<p>I can login to my own profile.</p> <ul style="list-style-type: none"> - To know what my username and password is - To know it is important to keep this information private. <p>I can name my work.</p> <ul style="list-style-type: none"> - To understand what 'naming work' means. - To understand the importance of giving work a unique name and one that explains to the user what the file is when they want to open it in the future. <p>I can save my work.</p> <ul style="list-style-type: none"> - To understand the importance of saving their work so they can revisit it in the future. - To be aware that in many programmes, the floppy disk icon and folders are associated with saving. <p>I can find my work.</p> <ul style="list-style-type: none"> - To understand how to search in folders. - To understand how to use the 'open' button to access work. 	<p>Chn to be familiar with logging in, accessing google classroom / Purple mash, finding and saving work.</p>	<p>Provide chn with key words and pictures, to sort on screen into a given criteria. To be given as e.g. Google Doc, chn to move around using mouse, 'click and drag'. Saving work into online learning space.</p> <p>Science: sorting materials</p> <p>History: sorting toys</p> <p>Geography: human and physical features of the local area.</p> <p>RE: sorting identifying features of the 5 main religions.</p> <p>Art: pictures from Andy Goldsworthy for art</p> <p>PSHCE: partner work, sorting similarities and differences between likes and dislikes to show individuality.</p>
	<p>I can sort pictures and text (Complete objectives through this outcome)</p> <ul style="list-style-type: none"> ● To know what is meant by 'picture'. ● To know what is meant by 'text' ● To understand what is meant by 'sort'. ● To be able to sort by a given criteria. 		
Spring	<p>Review:</p> <ul style="list-style-type: none"> - I can login to my own profile. - I can name, save and find my work. 	<p>Recapping logging in, accessing google</p>	<p>Children will learn how to input their own text and pictures to make an interactive poster. In the following unit, children will learn how to add sound to create a talking book.</p>



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	<p>I can add sound, pictures and text to a programme such as 2Create a Story / Google Docs.</p> <ul style="list-style-type: none"> - To know what is meant by 'picture' and that picture can also include photographs. - To know what is meant by 'text'. - To know what is meant by 'sound' – covered in Spring 2 - To be able to add sound, picture and text to appropriate applications e.g. 2Create a story, google docs, google slides. 	<p>classroom / Purple mash, finding, saving, opening work. Chn could also use chatterpix on iPads - you would need to show them how to save this to their online learning platform.</p>	<p>History: chatterpix poster with voice record for assessment question, Guy Fawkes. Geography: Poster to describe their preferred place to live - city or village Science: sorting, describing a type of animal e.g. mammals RE: describing their favourite parabal / how is shabbat celebrated? Art: evaluating their printed images using their 3D flowers. Music: sorting instrument families, chn could work in groups to create a poster of how each instrument is played and compare to another. PSHCE: making choices with money, discussing needs, wants etc.</p>
<p>Summer</p>	<p>I can change content on a file such as text, sound and images.</p> <ul style="list-style-type: none"> - To know what is meant by 'picture', 'text', 'sound'. - To understand that pictures, sounds and text can be edited to better suit the audience. - To be able to begin to edit content in an appropriate manner. 	<p><u>Purple Mash Schools</u></p> <p><u>Google Schools</u> Google Docs</p>	<p>Give chn a completed Google Docs- pictures too small, writing too big/faint. Background etc. How could we fix it? What needs to be improved?</p> <p>History: significant individual: make a slide presentation of who individual was, uplevel using more info/simplify. Put correct pictures on e.g. not a cartoon, correct ship (comparing old and new). Geography: Continents and oceans, colourful map, hard to read, changing colours. RE: chn to be given slide with mixture of correct and incorrect images and facts relating to a Jewish festival e.g. Purim, chn to identify incorrect and delete/add more correct ones. DT: mixture of fruits and vegetables, with unhealthy food. Chn to identify incorrect information and edit to make presentation of nutritious snack PSHCE: correctly identifying images of those who keep us safe, giving clear information - again could be presented to EYFS.</p>



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I.T. Across the Curriculum - Year 2

Term	Objectives	Software and Devices	Suggested Curriculum Outcomes
Autumn	<p>I can organise data - for example using a database.</p> <ul style="list-style-type: none"> - To know what is meant by the term 'information' and then how this relates to the term 'data'. - To look at different ways of sorting images by various criteria. - To understand why it may be necessary to sort large amounts of data so that it is easier to find the relevant information. 	<p><u>Purple Mash Schools</u></p> <p>2investigate 2graph</p> <p><u>Google Schools</u></p> <p>J2data on LGFL</p> <ul style="list-style-type: none"> - Database - Pictogram - Chart 	<p>Create, organise and store data into a pictogram and/or bar chart.</p> <p><u>Maths</u> – collecting and displaying class information.</p> <p><u>Geography</u> – Recording weather over a fortnight.</p> <p><u>Science</u> – categorising animals</p> <p>Locate specific data using a software.</p>
	<p>I can find data using specific searches – for example, using 2Investigate/kiddle.</p> <ul style="list-style-type: none"> - To know what is meant by the term 'information' and then how this relates to the term 'data'. - To understand that when faced with large amounts of data we need to effectively search to find what we are looking for. - To look at how to search data found in a database such as 2Investigate/Kiddle - To begin to develop the skills needed to search for information on the Internet. 	<p>Kiddle</p>	<p><u>History</u> – How is Remembrance Day celebrated?</p> <p><u>RE</u> – Diwali celebrations worldwide</p>



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Spring	<p>I can name, save and find my work.</p> <p>Use several programs to organise information – for example, using binary trees such as 2Question or spreadsheets such as 2Calculate.</p> <ul style="list-style-type: none"> - To understand that data can be sorted in different ways depending upon the program used e.g., using yes/no questions in a binary tree. - To begin to sort information themselves so they can find answers to questions. 	<p><u>Purple Mash Schools</u></p> <p>2Question 2Calculate</p> <p><u>Google Schools</u></p> <p>J2data on LGFL</p> <ul style="list-style-type: none"> - Branch - Database <p>Google Spreadsheets</p>	<p>Create a simple branching database devising simple ‘yes’ ‘no’ questions.</p> <p><u>Maths</u> – Guess my number.</p> <p><u>Science</u> – Categorising materials according to their properties.</p> <p><u>DT</u> – Creating a design profile for a money box.</p> <p>Organise information into a table and answer questions to interpret the information.</p> <p><u>Geography/Art</u> – categorising features of rivers, mountains and coasts</p> <p><u>History</u> – organising facts into correct columns for Florence and Mary</p>
Summer	<p>I can include photos, text and sound in my creations (review)</p> <ul style="list-style-type: none"> - Recap the work from year 1 about what is meant by pictures, sound and text. - To begin to understand the icons associated with photos, text and sound on Purple Mash/Slides - To understand that adding photos, text and sound can improve the quality of the creation for the audience. 	<p><u>Purple Mash Schools</u></p> <p>PowerPoint/Word</p> <p><u>Google Schools</u></p> <p>Slides</p>	<p>Link in with Music Curriculum.</p> <p>Create a Slides presentation showcasing an area of learning to present to others in the class. Children to include text, photos and sound.</p> <p><u>History</u> – Great Fire of London – what, when and why</p> <p><u>Geography</u> – Comparison of African Village with local area</p> <p><u>RE</u> – The 5 pillars of Islam</p> <p><u>PSHCE</u> – How to maintain good health and wellbeing.</p> <p><u>Science</u> – What plants need for survival.</p>



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I.T. Across the Curriculum - Year 3

Term	Objectives	Software and Devices	Suggested Curriculum Outcomes
Autumn	<p>I can name, save and retrieve my work on Google Drive, Purple Mash or a school shared area.</p> <p>I can carry out searches to find digital content on a range of online systems, such as within Purple Mash or on an Internet search engine.</p> <ul style="list-style-type: none"> - To recap the work from Year 2 on searching including databases and the Internet. - To look at how the search function works on Purple Mash/Google, including how to narrow down the search criteria using filters, so it is easier to find exactly what the child is looking for. - Using the + function on the search bar. 	<p>Purple Mash or Google search engine (begin to expose children to other search engines – e.g. Yahoo, Bing)</p>	<p>This objective can be linked into several different areas of the curriculum. Children need to practice using a search engine to gather information. After researching, children can practise saving relevant information into Google Docs and when needed retrieve the information to complete work.</p> <p>History: research facts about the Stone Age to answer a specific question so that filters can be used. Children to save research in Docs and save as well as retrieve.</p> <p>RE: locating key teachings from the Bible and saving into Docs or another software of choice – e.g. Jamboard.</p> <p>Science: researching types of igneous, metamorphic and sedimentary rocks and collecting information into a table in Docs/Slides.</p>
Spring	<p>I can collect data and input it into software.</p> <ul style="list-style-type: none"> - Review definition of 'data' from Year 2. - To collect data in a range of ways such as through questionnaires and investigations and add into a data collection program. <p>I can analyse data using features within software to help such as, formula in 2Calculate/tools on sheets in Google.</p> <ul style="list-style-type: none"> - To look at the different ways of entering data onto various programs including 2Graph, 2Calculate and 2Question. - Know that data can easily be analysed using certain tools such as the 'count' tool on 2Calculate to see how frequently data occurs. 	<p>Purple Mash Schools 2Question, 2Graph, 2Calculate</p> <p>Google Schools Sheets, Google forms</p>	<p>Children are to gather and input data into Google Sheets or equivalent Purple Mash programs and use simple tools to interpret the data. This data can then be presented in many different ways either through Purple Mash or by using the graphing tool on Google Sheets</p> <p>Maths: Data Handling – collecting and analysing data in different formats. Using tools to sort data.</p> <p>Science: Skeletons and nutrition – gathering data across the school to see which class is able to eat 5/6 a day. Analysing data within forms and inputting within another program to analyse.</p>



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	<p>Non-Purple Mash schools: use various different tools on Sheets to show children how data can be analysed.</p> <p>I can present data and information using different software such as 2Question (branching database) or 2Graph.</p> <ul style="list-style-type: none"> - To understand that data can be presented in various ways, and this depends upon the specific program used e.g. various graphing formats when using 2Calculate or 2Graph, as pictures and questions when 		
<p>Summer</p>	<p>I can consider what the most appropriate software to use when given a task by my teacher.</p> <ul style="list-style-type: none"> - To be familiar with the full range of software they have used this year and in previous years and be able to talk about the function of each program. - Select the most appropriate program to solve the task. - Complete the task and then save their work in an appropriate folder and know how to retrieve their work. <p>I can create purposeful (appropriate) content and attach this to emails - covered through discrete unit 3 – Communicating Safely on the internet.</p> <ul style="list-style-type: none"> - 	<p>A range of different software programmes used from Years 1-3.</p>	<p>Provide children with a task to complete in one of the wider curriculum subjects. Which software would be best at showing that information? Children to select their program and complete task.</p> <p>History – Sharing recent experience from trip to Royal Naval College.</p> <p>Geography – Sharing location of different countries in Europe.</p> <p>Art – explaining the steps to making a pop-puppet or sharing an evaluation of the end product.</p> <p>Science – recording the results of a scientific experiment and presenting the results in a graph/table.</p> <p>French – teaching new vocabulary to younger children.</p>



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I.T. Across the Curriculum - Year 4

Term	Objectives	Software and Devices	Suggested Curriculum Outcomes
Autumn	<p>I understand the purpose of a search engine and the main features within it:</p> <ul style="list-style-type: none"> - I can name well-known and popular search engines. (Building on knowledge from Year 3) - I can list different features of a search engine home screen. - I can understand that information can be found from search engines in various ways, including searching by using a question. <p>I can look at information on a webpage and make predictions about the accuracy of information contained within it:</p> <ul style="list-style-type: none"> - I can understand what is meant by 'reliable'. - I can understand that not everything I read online is true and I am beginning to know when a website may contain false information. - I can look for clues about a website and its address to tell me if it is likely to be reliable. 	<p>Search engines: Kiddle Google</p> <p>Yahoo MSN Bing YouTube DuckDuckGo Wikipedia – reliability?</p>	<p>Children to carry out research for wider curriculum projects/enquiry questions.</p> <p>History- Researching primary/secondary sources for study on The Romans</p> <p>Geography – Research human and physical features of the Arctic and Antarctica. How reliable are these websites?</p> <p>RE – Researching the key attributes of each Hindu God.</p> <p>Art – Research reliable images of Roman Mosaics from the age and after.</p> <p>DT– Research what typical fairgrounds look like aesthetically.</p>
Spring	<p>I can work collaboratively to create content and solutions:</p> <ul style="list-style-type: none"> - I can understand what the term 'collaboratively' means. - I can select suitable software to create digital content. <p>I can create and improve my solutions to a problem based on feedback.</p> <p>I can review solutions that others have created, using a checklist of criteria.</p> <ul style="list-style-type: none"> - To understand that reviewing solutions to problems is also known as debugging. - To understand what is meant by the term 'criteria'. 	<p>Jam Board and/or Loom</p> <p>An alternative to loom is flipgrid.</p>	<p>Children to work in small groups of 3 to create shared content on Loom or Jam Board. Children to formulate success criteria beforehand to ensure they have a reference point for solving problems afterwards.</p> <p>History - An explanation on reformation using Loom and/or class jam board discussion on whether Henry VIII was right to have carried out the reformation.</p> <p>RE– How is worship carried out in different cultures.</p> <p>Science – How does the digestive system work?</p>



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	<ul style="list-style-type: none">- To look at solutions to problems created by themselves or others.- To develop skills needed to debug whether the solution will work.- To make suggested amendments where needed.		
Summer	<p>I can share digital content using a variety of applications.</p> <ul style="list-style-type: none">- To understand the term 'digital content'.- To consider why sharing work is important.- To look at ways of sharing work- To develop the skills so they can share work they have created to a wider audience.- I can use input and output features such as insert picture and print to screen.	<p><u>Purple Mash Schools</u> 2Email</p> <p><u>Google Schools</u> Slides</p> <p>iPad for photos</p>	<p>Children to create an interactive Slides presentation, inserting photos, backgrounds, titles, animations, sounds changing text colours. Children to take screenshots as evidence of their work in Google Classroom.</p> <p><u>Curriculum enrichment</u> – Write a recount of a visit to a place of visit to share via email/assembly with other children. This could be linked to the History trip on the visit to The Tower of London.</p>



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I.T. Across the Curriculum - Year 5

Term	Objectives	Software and Devices	Suggested Curriculum Outcomes
Autumn	<p>I can search precisely when using a search engine.</p> <ul style="list-style-type: none"> - To know the importance of password and that these may be needed for some websites. - To know that passwords should not be shared with anyone else. - To know that when searching online they do not need to use grammar and how using a Boolean search can improve the effectiveness of their search. For example, I know I can add additional words or remove words to help find better results. <p>I can explain in detail how accurate, safe and reliable the content is on a webpage.</p> <ul style="list-style-type: none"> - Recap the learning on search from year 4 including the reliability of information on websites. - To look for clues about a website and it's address that may tell them if it is likely to be reliable. 	Kiddle Google search	<p>Children search with a greater complexity when using a search engine.</p> <p>They will be able to explain in detail how credible a web page is.</p> <p>They will be able to evaluate whether the information it contains is relevant.</p> <p>History: Research Anglo Saxons Deep study: Analysing various sources and validate them</p> <p>Geography: Physical diversity of South America.</p> <p>RE: Researching Jewish practice</p>
Spring	<p>I can make appropriate improvements to digital work I have created.</p> <ul style="list-style-type: none"> - Use their evaluation skills to analyse how their own or others work could be improved. - To consider what aspect of their work needs improving e.g. text, pictures or sound and be clear about what these changes will look like. - To edit their work and then save it so the changes are not lost. - If appropriate, share their work with a wider audience. <p>I can comment on how successful a digital solution is that I have created.</p>	Google Forms Google Sheets	<p>Link these objectives with maths and data handling. Ask children to design a short form on Google Forms to gather data. Use Google Sheets to present data using two different graphs. Children to edit their graphs, inserting text, colours, titles and labels. Working in mixed ability partners, children to discuss a particular problem they faced and how they corrected the 'error.'</p> <p>Maths: Data handling</p> <p>Alternative outcomes:</p> <p>Geography: Calculating food miles</p>



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	<ul style="list-style-type: none">- To continue to develop the skills of looking at their work and ascertaining where there may be errors.- To clearly articulate the changes they will make and how this will correct the error.		Science: Recording data from investigations carried out with states of matter.
Summer	<p>I can work collaboratively with others creating solutions to problems using appropriate software.</p> <ul style="list-style-type: none">- To have basic skills needed to work collaboratively.- To work as a team to debug and then find suggested solutions to problems.- Play an active role in implementing the solution and understand it is more important for the team to be successful than for one person to dominate. <p>I can use collaborative modes such as within 2Connect to work with others and share it.</p> <ul style="list-style-type: none">- To recap the work from year 4 on collaboration including the advantages of collaboration on effectiveness and efficiency.- To know that some programs such as 2Investgate and 2connect have collaboration options hard coded into them so that data can be entered more efficiently than one person doing everything alone.- To contribute to a collaborative piece of work with other children	<p>Google Sites for designing a web page.</p> <p>Jam board for sharing of ideas.</p>	<ul style="list-style-type: none">1. Generate a response to a question on jam board to see how documents can be collaborated on. This can be a starter activity for any lesson.2. Create a shared webpage (for collaboration) on Google Sites. <p>History: Answer enquiry question.</p> <p>RE: A webpage on what happens during Ramadan and why Eid is celebrated.</p> <p>Science: an explanation of how different life cycles differ from each other.</p>



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I.T. Across the Curriculum - Year 6

Term	Objectives	Software and Devices	Suggested Curriculum Outcomes
Autumn	<p>I can use filters when searching for digital content.</p> <ul style="list-style-type: none"> - Use a search engine to complete a specific search (review BOOLEAN terms from Y5): <ul style="list-style-type: none"> a) use + and – to exclude or add words in the search. b) 'or' to show results can include any words. c) 'near' to show words must be close together in the search. d) Use quotes around phrases to search a specific sequence of words. - Use tabs on search engines to find specific types of information. E.g. images, videos, news, maps, shopping and more. Children to know these are called FILTERS. <p>I can explain in detail how accurate and reliable a webpage and its content is.</p> <ul style="list-style-type: none"> - To understand how to look for reliability of information and to spot spoof websites or those containing information that is untrue. 	Chromebooks/ laptops	<p>To embed the knowledge of using filters and selecting 'reliable' websites, these objectives can be taught across several research lessons.</p> <p>History: researching facts for the Ancient Greeks in relation to a specific lesson. Know when to use the filter tool to search for images, videos or information.</p> <p>English: Gathering facts before writing a non-chronological report, biography or encyclopaedia entry. Searching for news to learn about online articles.</p> <p>Geography: gathering climate/biome information for countries in North America. Using the maps filter to locate and name key countries and cities.</p> <p>Buddhism: Researching for a video clip to gather research for how Buddhists can reach enlightenment.</p> <p>Art and Design: Researching images for Greek clay busts.</p> <p>PSHCE: ranking websites on their reliability.</p> <p>Useful link: www.bbc.co.uk/bitesize/topics/zv63d2p/articles/zjr8qyc</p>
Spring	<p>I can compare a range of digital content sources and rate them in terms of content quality and accuracy.</p> <ul style="list-style-type: none"> - Know what is meant by digital content. - Use clear criteria to rate and evaluate digital content for quality and content (this will be covered through PSHCE objectives) <p>I can consider the intended audience carefully when I design and make digital content.</p>	Google Podcasts Flip grid/Loom	<p>Google Podcasts – all children to access this from the drive. They can then save their recording to a class assignment to review work on retrieving, saving and sharing work.</p> <p>History: After learning about rationing, children to create a loom for children of similar age teaching them of this time in history.</p> <p>Maths: Recording a loom to explain to a Year 5 child how to multiply large numbers (or strategies for other operations)</p> <p>Science: A recording to show Year 4 how to complete a simple series circuit and showing the effect of</p>



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	<ul style="list-style-type: none"> - To be clear of their audience. - To be clear about what is appropriate for the audience. - To create a digital piece of work: a short video. - To seek feedback from the audience about the appropriateness. - To evaluate their own work. 		<p>adding/removing components. Year 4 can watch the video during their unit on electricity.</p> <p>RE: Documenting a visit to the Gurdwara after the visit explaining the conventions of a Gurdwara. Children can incorporate this with Slides to show photographs of the visit.</p> <p>Geography: Creating a news report on the Mt St Helen's volcanic eruption or Hurricane Katrina. Children to watch a few reports beforehand to rate and evaluate digital content for quality and content.</p> <p>Music: showing knowledge of the Beatles and the influence they had on people and governance during their time.</p> <p>English: Recording of a WW2 poem – children to perform their own handwritten poem or recite one memorised.</p> <p>PE: Videeing a sequence in gymnastics to model to younger children.</p> <p>French: Recording numbers to 10 to share with EYFS children. Children to watch a range beforehand to find what would best appeal to the younger years.</p>
<p>Summer</p>	<p>I can design and create my own online blogs.</p> <ul style="list-style-type: none"> - To know what a blog is. - To think about what information can be shared on a blog. - To contribute to a shared class blog. - To create their own blog. - Share work and information to their blog. - If appropriate share their blog with a wider audience. <p>I can use criteria to evaluate the quality of my own and others digital solutions, suggesting refinements.</p> <ul style="list-style-type: none"> - To understand the meaning of 'criteria'. - To develop the skills to evaluate their own and others work. - To present their refinements and improvements in a constructive manner. - To respond to other people's evaluation of their own work and make amendments where needed. 	<p>Purple Mash Schools 2blog.</p> <p>Google Schools Google Sites to create website for blogs.</p>	<p>PSHCE: Creating a memories blog for Year 6 Leavers – children to add a memory each week. Children to evaluate blogs against the criteria above.</p> <p>Curriculum enrichment/The Arts: Create a blog of events and outdoor visits leading up to the Leaver's Assembly.</p>



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