

Blessed Sacrament - Computing across the Curriculum Long Term Planning Map - [Y2]

This is your long-term overview for Computing. Please add to or amend this plan through the year. Underneath each section are the key skills for that area of computing. These can be assessed using the Assessment tracker spreadsheet. Refer to the Skills Sheets for more guidance in this section and essential steps for teaching. More activities and suggestions can be added as other subject areas are added to the plan.

T = Tutorial Available

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Topics	Aspects of Africa		Historical heroes		We're all going on a summer holiday	
Science	Food chains Animal habitats		First flight and moon landing Stevenson's Rocket How transport has changed over time			
Literacy	Printing Adrinka patterns					
History					Victorian holidays	
Geography	World map placement of continents and oceans Daily weather patterns from the UK and Kenya Comparison of Liverpool and Kenya Food from Africa		Similarities and differences of the continents and oceans Study Peter Thorpe Ernst Haeckel		Human and physical features of a town/city Human and physical features of a small island Comparisons of cities to islands. How holidays have changed over time. How the seaside has changed over time Comparison of lives of people in cities to people who live on small islands (Katie Morag) Locate countries, seas, seaside towns within the UK on a map	
Art / DT	Printing Adrinka patterns		Design, make and evaluate a vehicle with a focus on wheels and axles		Design and create 2d map of their own island showing human and physical features they may find.	
MUSIC	Study African instruments used with various pieces of music					

<p>Key Skills (used throughout all areas of Computing)</p>	<p>KS2.1 Be able to log into and out of an account on a computer or program independently. KS2.2 Be able to enter text using more than one finger, beginning to use both hands. KS2.3 Be able to shut down a program or device at the end of a session. KS2.4 Can use a mouse/trackpad to move and place items accurately on a screen. Use double click or tap, pinch to zoom, swipe etc. KS2.5 Be able to save and retrieve work effectively. KS2.6 With clear guidance, be able to navigate a folder system e.g. Shared Drive, iPad camera roll or Dropbox. KS2.7 Can use basic keyboard keys e.g. backspace, space bar, return.</p>
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<p>Computer Science</p> <p>Tutorial Link</p>						
<p>Control and Programming</p>	<p>Code Studio</p> <p>Code Studio. Create or print off existing user accounts for class on the website. Y2 should be working on Course B, at a pace that is appropriate for the class. We would recommend teaching the whole class a lesson at a time, and using the extension materials to allow more able pupils to progress once they have completed the lesson materials, rather than moving on through the lessons independently. Track and target pupil progress using the built-in pupil tracker. T</p> <p>CS2.1, CS2.2, CS2.3, CS2.4, CS2.5</p> <p><i>Extension activities below are non-essential, but you may wish to extend and vary control and programming teaching, and apply and consolidate the skills taught in Code Studio.</i></p>					
	<p>Beebot app and Blue-Bot app Use both apps to guide on screen sprites (characters) around virtual maps. CS2.2, CS2.4, CS2.5</p>	<p>A.I.E.X. the Robot app Revise sequencing of directional command and debugging from Year 1. Use logic and reasoning to create and complete their own/each other's levels. T CS2.2, CS2.4, CS2.5</p>	<p>Box Island app Solve problems by sequencing and debugging directional commands. If used in Year 1 then focus more on repeat and conditional (selection) levels. Each child can create their own profile or teachers can manually record each child's progress e.g. on ticklist.</p>	<p>Learn Code with El Chavo app Develop sequencing skills in Level 1: Sequences I. Develop sequencing skills in Level 2: Conditionals. CS2.2, CS2.4, CS2.5</p>	<p>Purple Mash 2Code Children login to Purple Mash and work on lessons from the CHIMP sections chosen by the class teacher. If started in Y1, be aware of what has already been covered. Link CS2.1, CS2.2, CS2.4, CS2.5</p>	<p>Scratch Jr app Introduce Scratch Jr app, using the animals sprites to create a themed habitat. Choose a background (e.g. underwater) and add suitable animals. Use coding blocks to program them to move appropriately in the habitat. Extend by including multiple backgrounds, and adding speech. T</p>

			CS2.2, CS2.4, CS2.5			CS2.1, CS2.2, CS2.3, CS2.4, CS2.5
Key Skills	CS2.1	Be able to give control devices instructions that contain numerical data.(e.g. move 2 steps etc).				
	CS2.2	Can use logical reasoning to predict the outcome of a sequence of instructions and test the sequence, amending if necessary.				
	CS2.3	Can use the repeat command (loops) to program more efficiently.				
	CS2.4	Is able to make use of simple events e.g. mouse clicks/tap on screen.				
	CS2.5	Be able to find a bug in a simple program.				

Digital Literacy			
Tutorial Link			
Research: Internet	Search for and save images online Use Google Image Search in Safari (using iPad) for images related to the topic of Africa. These could be saved and used in another piece of work. DL2.1, DL2.2	Internet research Begin to use simple keywords (guided by the teacher) to locate information about different types of transport in a search engine (including in-app search tools). Use a child-friendly search engine e.g. Kidrex or Kiddle DL2.1, DL2.2	Mr Houghton's Infant Encyclopedia T Find out about Seaside holidays using Mr Houghton's Infant Encyclopedia. Use QR codes for the children to launch the app on iPads (QR Stuff link) or save as a web link to the shared area if accessing through the desktop computers. Devise a set of questions for children to use the different types of information (text, video etc). Children can create a fact sheet from the information they have found or use it as part of cross-curricular writing. Link here DL2.1, DL2.2
	BBC Science: Habitats and the Environment Watch videos and take part in activities related to food chains and habitats on the BBC Bitesize website . DL2.1		
Online Communication and eSafety	Rules At the beginning of the year, share and discuss the school rules for staying safe online. DL2.3, DL2.5	Common Sense Materials Staying Safe Online Students understand that they should stay safe online by choosing websites that are good for them to visit, and avoiding sites that are not appropriate for them. DL2.3, DL2.5	Jessie and Friends Episode 1 - Watching Videos Develop children's safety on the web and on social media/game websites. Link here DL2.3, DL2.5

Modelling and Simulations	<p>Habitat simulations Use the 'Build A' links below to allow pupils to explore designing different appropriate habitats for specific animals. Build a habitat Build a biome TopMarks DL2.6</p> <p>Education City Living things and their habitats Digital activities linked to living things and their habitats science topics. (Login required). Link here</p>	<p>Google Earth Explore the continents on Google Earth. Compare similarities and differences between them. Use search tool, street view zoom and navigation tools. <i>This could be done in a Geography lesson or as a whole-class starter.</i> T Link here DL2.2, DL2.6</p> <p>Purple Mash Labelling Continents Label a digital map with the different names of each continent. Link here DL2.1</p>	<p>Google Earth Explore the seas and seaside towns on Google Earth. Identify human and physical features of towns, cities and islands. Use search tool, street view zoom and navigation tools. <i>This could be done in a Geography lesson or as a whole-class starter.</i> T Link here DL2.2, DL2.6</p>
Education City	<p>Maths activities and tools When planning maths lessons, explore these activities to incorporate into your lessons. Link here</p>		
Key Skills	<p>DL2.1 Be able to navigate a website using links or buttons. DL2.2 Be able to use a search engine to search for given information to answer questions, sorting by text, pictures, sound and video. DL2.3 With support, be able to say what information is personal and should not be shared online. DL2.4 With support, be able to share pictures or work to an online platform. DL2.5 To be able to follow and understand school rules for staying safe online. DL2.6 Be able to make changes in a model/simulation and use them to make and test predictions.</p>		

Information Technology

[Tutorial Link](#)

Education City	<p>Education City Reading and Writing tools Use the link below to explore a range of interactive reading and writing activities and tools. These can be used as a teacher led whole class activity or independent pupils activities depending on their ability. (Login required for teacher and pupils to access). Link here</p>
Word Processing and Desktop Publishing	<p>BBC typing game Use Dance Mat Typing activities to develop keyboard skills. (On-going) IT2.2</p>

Multimedia	<p>Pic Collage app Create a poster about African instruments or food. Use images found online and/or photos taken in class to enhance their work. Include simple captions and labels. IT2.1, IT2.2</p>	<p>Tiny Tap app Make a digital habitat for animals. Using in app searches find a suitable image for a background. Next find images of animals that fit the habitat, remove the background from these images. Finally create a 'Soundboard' activity where children can select each animal and write facts related to the image. IT2.1, IT2.2</p>	<p>Microsoft Word/ Google Docs Begin to present writing from English and teach basic formatting of text. This could be linked to facts relating to a chosen historical hero. IT2.1, IT2.2</p> <p>Purple Mash Transport See activity below. However, you may want to have more of a writing focus using the same resource. IT2.1, IT2.5</p>		<p>Purple Mash writing tools Compare Victorian holidays to modern holidays. Link here IT2.1, IT2.2</p>	<p>Purple Mash writing tools Use the diary template to write about a summer holiday. Link here IT2.1, IT2.2</p>
	<p>Shadow Puppet Edu app Add images from the in app map search. Locate the required Continent, adjust to adequate size and then take photographs. Add captions to the photos, giving the name of the continent. Record a narration of their knowledge to create a film. Once they have saved their work, review and decide how to make improvements. IT 2.5</p>	<p>Chatter Kids app Make full face images of historical heroes speak. Take a picture from a book or download an image from the internet to the iPad. Add to the app, mark the mouth and record 30 seconds of speech. Playback, evaluate, re-record if necessary and save as a video. IT 2.6</p>		<p>Purple Mash Transport Compare old and new transport, sorting images and adding text and audio, if desired. Link here IT 2.5</p> <p>Taking Photos Take photos of different parts of the model that they have made in DT. Within the Photos app, edit them with filters and cropping tools to enhance the images. Use Shadows Puppet Edu App to create a presentation of these photos. Add and sequence images with text over the top of the images. Add a voice over and background music. This could be used to talk about how they</p>	<p>Doodle Buddy app Design and create a digital image of a seaside trip. Focus on colour choice, and line width and style. IT 2.3</p>	<p>Green Screen (Do Ink app paid) Film children pretending to be at the seaside discussing what types of things they might see or hear. Use a suitable background images that makes children appear to be at the seaside. These scenes could then be edited using an app such as Shadow Puppet Edu. (hi-impact support if required). IT 2.5</p>

			have designed and made their models. T IT 2.4		
	Lit Film Fest Use the Lit Film Fest website to access free English projects. Each project has a set of structured lessons based around writing genres and shows how technology can be incorporated to produce a performance video by the end of the project. (Users will have to create a free account to access the free resources, while other projects are under a paid subscription. IT2.1, IT2.5, IT2.6				
Data Handling	Animal database website Children can use the link below to access the database to search for different animals that have been selected by the teacher. Search by name, location, group or whether they are endangered. Children can find information and answer specific questions about the found animals. Link here IT2.8	Bar Graph Select from links here to create an online graph, linked to Maths or Science. Screen shots could then be taken of the finished graphs as evidence. www.mathsisfun.com www.i2e.com https://www.purplemash.com/#app/tools/2graph IT2.7	Purple Mash 2Investigate Holidays Use the 2Investigate pre-built holiday database to explore sorting and arranging holiday data. Link here IT2.8		
Key Skills	IT2.1 When producing text, can add and edit text, considering style, colour, layout and font. IT2.2 Be able to say where letters are located on the keyboard, increasingly using appropriate punctuation. IT2.3 Can use simple tools within suitable software to create digital art. IT2.4 Be able to purposefully use different image editing tools, including crop, resize, and flip, exploring effects such as symmetry and filters. IT2.5 Be able to sequence and arrange pictures or video clips for a purpose. IT2.6 Be able to select and record musical phrases, sound-effects or voice-overs to enhance multimedia work. IT2.7 Can make use of different types of graphs to represent data collected. Be able to enter data accurately to provide the answers to questions. IT2.8 With help be able to search a pre-prepared database as part of a group, constructing questions and suggesting plausible answers.				