Blessed Sacrament - Computing across the Curriculum Long Term Planning Map - [Y3]

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	Beneath our feet (Europe)		Prehistoric Britain		Wild Earth	
Science			Plant growth and its conditions Plants and food sources Fossil hunting Rocks and their properties Comparison of rocks and their uses		Forces and magnets Recreate certain weathers using scientific techniques Advantages and disadvantages of volcanoes/earthquakes	
Literacy	Adventure stories about travelling around Europe		Write a play script from the stone age Create a tourist leaflet of Stonehenge Day in the life of someone from the Iron age		Diary entry from 'Escape from Pompeii' Poetry about extreme weather	
History	History behind the famous landmarks Music from across Europe		Design and make their own weapon Roles and jobs of an archaeologists Create historical timelines through the ages The Bronze age and smelting process		Mount Vesuvius and its History	
Geography	European landmarks, cities within Europe Compare European capital cities Observe weather patterns in different cities across UK and Europe				Research extreme weather Newspaper report on extreme weather conditions/events	
Art / DT	Famous artists from Spain Draw and make own landmark		Research Skara Brae Create cave paintings Weaving Recreate Stonehenge		Design and make a volcano Look at a variety of artists who paint volcanoes	

Key Skills *(used throughout all areas of Computing)*	KS3.1 When using a mouse or trackpad, be able to use left/right/double click and scroll. KS3.2 Able to use more than one hand to enter text, using the keyboard. KS3.3 Can use cut, copy and paste tools by right clicking or using the edit toolbar. KS3.4 Be able to save and retrieve work effectively. KS3.5 With guidance, be able to navigate a folder system to find and open a specific file e.g. Shared Drive, iPad camera roll or Dropbox. KS3.6 Know and use basic keyboard function keys e.g. shift, caps lock, space bar, return.

Computer Science

Tutorial Link

	Code Studio
	Code Studio. Create or print off existing user accounts for class on the website. Y3 should be working on Course C, 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** **CS3.1, CS3.2, CS3.3, CS3.4, CS3.6** *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.*

	Alex the Robot app	**Lego Mindstorms (Fix the Factory) app**	**Learn to Code with El Chavo app**	**Purple Mash 2Code**	**Scratch Jr app**	**LightBot app**
Control and Programming	Revise logo style directional commands. Use game creation levels to develop children's understanding of routes and paths. **T** **CS3.1, CS3.3**	Develop work done in Code Studio by introducing Lego Mindstorms, Fix the Factory App. **Link here T** **CS3.1, CS3.3, CS3.5**	Develop sequencing skills (Level 3 - Sequences II). **CS3.1, CS3.2, CS3.3**	Children log into Purple Mash and work on lessons from the CHIMP/GIBBON sections chosen by the class teacher. If used in previous years, be aware of what has already been covered. Link **CS3.1, CS3.2, CS3.3, CS3.4, CS3.5, CS3.6**	Tell a simple story linked to extreme weather or volcanoes. Use motion blocks and repeats. Make use of the show, hide and say blocks. **CS3.1, CS3.2, CS3.3, CS3.4, CS3.5, CS3.6**	Extend use of sequencing of directional commands by using Lightbot app, or online. **T** **CS3.1, CS3.3, CS3.4**

Key Skills	CS3.1 To sequence a list of commands/blocks to produce an output e.g. a light comes on or a robot follows a defined route. CS3.2 Is able to use 'repeat' and 'repeat until' loops when appropriate. CS3.3 Be able to find errors in a simple program and successfully debug to make the program work. CS3.4 Can use conditional statements (if and when commands). CS3.5 Understands the importance of time within a program (e.g. using wait). CS3.6 Can make use of an input 'event' within a simple program e.g. when start button is clicked.

Digital Literacy

Research: Internet	**Compare a number of websites** Look at the way pages are formatted, use of images, helpfulness etc. Practice keyword searching and scanning and skimming for information. Teacher could provide children with 3 or 4 websites (e.g. linked to European landmarks) and ask them to compare. Which is most useful and why? **DL3.1, DL3.2, DL3.3, DL3.4**	**Navigating a website** Use the link below to allow children to navigate around a given website. Children could be set a number of questions with the answers found within the website. Link here **DL3.1, DL3.2, DL3.3, DL3.4**	**Add a web page/site** Select a page liked to book topics to Favourites list/ bookmark for use at another time relating to Prehistoric Britain e.g. Word document or shared folder as a link. **DL3.1, DL3.2, DL3.3, DL3.4**	**Key Search Questions** Develop key search questions to find information about volcanoes and earthquakes. Teach strategies to increase the accuracy of keyword searches and make inferences about the effectiveness of the strategies. Use Common sense Materials to support: The Key to Keywords **T** **DL3.4**	**Child Friendly Online Encyclopedia** Research natural disasters for non-fiction writing using: Simple Wikipedia or Kids Britannica to find specific information. **T** **DL3.1, DL3.2, DL3.3, DL3.4** **BBC Bitesize: Forces and Motion** Use the videos and activities on the BBC Website to enhance and embed children's learning. **DL3.1**
Online Communication and eSafety	**Common Sense Materials** Screen Out the Mean What can you do when someone is mean to you online? Login and download these Common Sense Media resources. **DL3.2**	**Purple Mash Online safety KS2** Use Purple Mash resources to teach a variety of e-safety concepts. Link here **DL3.2**	**Common Sense Materials** Keep it Private What kinds of information should you keep to yourself when you use the Internet? Login and download these Common Sense Media resources. **DL3.2**	**Kara and Winston** Use Childnet resources to support e-safety and learning platform work. Watch videos (one Chapter at a time) and complete the activity. (ongoing) **DL3.2**	**Common Sense Materials** My Online Community How does the Internet connect you to others? Login and download these Common Sense Media resources. **DL3.2**
					Quizizz Use the quiz based website for pupils to participate in online quizzes and continue throughout the year. Quizizz link **DL3.2, DL3.3**
	Purple Mash display boards, 2Email and 2dos With children logged in to Purple Mash, work and activities can be shared with them using 2dos. Work completed by the pupils can be displayed to others via display boards and 2Email resources can allow children to improve their skills of communicating using technology. **DL3.3**				

Modelling and Simulations	**Google Earth** Explore Europe on Google Earth. Compare human and physical features and locate Eurpoean cities at different scales. Identify key landmarks and use the 2D and 3D tools to explore different formats. Use search tool, street view zoom and navigation tools. *This could be done in a Geography lesson or as a whole-class starter.* **T** Link here **DL3.6**	**Google Earth (Volcanoes and Earthquakes)** Look at the local area. Identify key features and landmarks using street view and 360° images. Explore areas that are prone to earthquakes and volcanoes. *This could be done in a Geography lesson or as a whole-class.* **T** Link here **DL3.6** **Volcano Island simulator** Use the website to explore what life might be like living in close proximity to an active volcano. **DL3.6** **Skara Brae Archeology** Use BBC website to explore and find out more about archeology and Skara Brae. Link here **DL3.6** **Education City Plants** Digital activities linked to Plants science topics. (Login required). Link here **DL3.6** **Education City Rocks** Digital activities linked to Rocks science topics. (Login required). Link here **DL3.6**	**Forces Simulations** Use the links below to experiment with the key concepts of each topic: Magnet simulation Friction simulation **DL3.6** **Education City Forces and Magnets** Digital activities linked to Forces and Magnets science topics. (Login required). Link here **DL3.6**
Education City	**Maths activities and tools** When planning maths lessons, explore these activities to incorporate into your lessons. Link here **DL3.6**		
Key Skills	DL3.1 Can use information found online to answer specific questions, and evaluate how appropriate a site is. DL3.2 Works within the internet safety rules, understand why they are in place and abide by them. DL3.3 With support, is able to share suitable pictures and work to an online platform. DL3.4 Can identify and use keywords for effective Internet searches. DL3.5 Able to select relevant information (pictures and text) to use in other software. DL3.6 Can enter data into a computer simulation, change data and observe changes in results.		

Information Technology

Tutorial Link

Education City	**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

Word Processing and Desktop Publishing	**Typing Skills** Use BBC dancemat typing activities to improve keyboard skills. (On-going) **IT3.1**					
	Pic Collage app Combine images and text to present an information poster on Famous landmarks of Europe. Independently save and add images from the web, add text and format it with consideration to the audience. **IT3.1, IT3.4**	**Microsoft Word** Layout a formal document linked to English. Practice typing with two hands, consider layout and add images. A piece of pre-written work from English could be used for this task e.g. an adventure story. **IT3.1, IT3.4**	**Timeline app** Sequence key events from Prehistoric Britain. Images can be added to the timeline and the events can be re-sequenced and moved around to make it as clear as possible. *This could be done in a history lesson to present information.* **IT3.1, IT3.4**	**Purple Mash Stone Age/Skara Brae writing tools** Select from a variety of Purple Mash writing activities all based around the Stone Age. Link here **IT3.1, IT3.4**	**Microsoft PowerPoint** Create a presentation about Mount Vesuvius. Add images and enter text as text boxes. Combine images and text with effect and ensure word processing basics (capitals, punctuation, spaces, etc) are embedded. **IT3.1, IT3.4**	**Tiny Tap app** Make an interactive presentation combining text and graphics and create sound recordings/ puzzles about Forces and Magnets. Use a variety of different activities (Sound Board, Ask a Question, Talk or Type, Shape Puzzle) to create a multimedia presentation. **IT3.1, IT3.4**

Multimedia	**Shadow Puppet Edu app** Create a presentational video based on European cities. Within the app children could search for images (or use the map search) to find pictures related to different cities. Alternatively, they could search for and save images from the web. Sequence images and record a voiceover using the voice record tool. Videos could be extended by adding titles and music. **T** **IT3.3, IT3.4, IT3.5**	**Brushes Redux app** Practice digital sketching. Explore the different tools that are available in the app and experiment with a variety of lines for different effects. Save as images to the camera roll on the iPads. This could be linked to work on Spanish artists or creating their own landmarks. **IT3.2, IT3.3**	**Purple Mash Cave painting** Use painting tools in Purple Mash to create a stone age themed piece of art. Link here **IT3.2, IT3.3** **Stone Age Playscripts** Use the playscripts the children have written to record and listen back to their work, in the style of a radio/audio play. Use Voice Record Pro app or record directly into Audacity using laptops. **IT3.5**	**Chatter Kids app** Make rocks come to life giving them a face and a voice. Take a photograph of a chosen type of rock 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. **IT3.2, IT3.3, IT3.5**	**Koma Koma app** Create a stop frame animation film. This could link to natural disasters, for example an erupting volcano. Plasticine or paper could be used. Clips saved to the camera roll could be imported into the Shadow Puppet Edu app with background music added. **IT3.2, IT3.3, IT3.4**	**Pixlr photo app** Edit images using filters and layouts to convey different emotions or messages. For example to convey different weather systems or the extreme conditions during a volcanic eruption. **IT3.2, IT3.3**
	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. **IT3.1, IT3.4, IT3.5**					
Data Handling	**Purple Mash 2Calculate/Microsoft Excel** Introduce pupils to simple spreadsheets, by asking them to input some basic data into the sheet. This could be populations of different European cities or weather patterns in different cities. Have children create basic bar graphs to analyse the data. 2calculate **IT3.7, IT3.9, IT3.10**		**Purple Mash 2Question (Branching database)** Create a branching database that allows children to sort through different characteristics of rocks, asking a variety of questions. Children will need to have researched or be given facts and characteristics of rocks prior to the lesson. **IT3.8, IT3.10** **Purple Mash 2Graph** Create simple graphs and charts using 2Graph linked to and data handling in Maths or Science. **IT3.7**		**Toolbox app** Use the teslameter section of the app on iPad to record magnetic levels of different objects around the class or school. Extend this to measuring magnetic strength variation of a magnet as it changes with distance from the iPad as part of a science investigation. **IT3.6**	
Key Skills	IT3.1 In a suitable word processing package, can make use of basic layout tools such as borders and columns. IT3.2 Able to purposefully use a range of tools within suitable software to create digital art. IT3.3 Can use a range of editing tools in an image editing package for a specific purpose. IT3.4 Able to sequence still images and video and use simple editing techniques to create a presentation for an audience. IT3.5 Can locate, record, save and retrieve sounds in multimedia software.					

	IT3.6 Can use data loggers to collect snapshot information.
	IT3.7 Able to use information from a given source to generate graphs or charts.
	IT3.8 Can use data records to populate a pre-prepared digital branching database.
	IT3.9 Can enter data into a pre-prepared spreadsheet.
	IT3.10 Able to answer questions by searching and sorting a database or spreadsheet.