Childwall Valley - Computing across the Curriculum Long Term Planning Map - Y2

This is your long-term overview for Computing. Please add to or amend this plan throughout the year. Underneath each section are the key skills for that area of computing. These can be assessed using the Assessment tracker spreadsheet. 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	Local		UK		World	
Science	Living things and their habitats		Uses of everyday materials		Plants	Animals Inc Humans
History/ Geography	Local History Study-Beatles	Navigators: Map work	Events beyond living memory that are significant nationally Great Fire of London	A Village Story: Contrasting study - Woolton Village, UK and Muguremo Village, Zambia.	The lives of significant individuals in the past - Explorers Amelia Earhart Christopher Columbus / Captain Cook	Around the world: Locate and name the 7 continents and 5 oceans.
Art / DT	Art – To create a shape piece of Art work Artist – Mondrian	DT - Mechanisms - moving picture - fairy tales?	Art – Sculpting/textiles – To use junk modelling to create a 3D sculpture of London	DT – To create a hand puppet	Art – Drawing - To draw a self portrait Artist – Picasso (EYFS)	DT – Cooking – To make sandwiches - origins of foods linked Geography

Key Skills *(used throughout all areas of Computing)*	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.

Computer Science

Tutorial Link

Code Studio

[Code Studio.](#) Create user accounts for class on the website if not created in Y1. Y2 should be working around Course B level, 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**

CS2.1, CS2.2, CS2.3, CS2.4, CS2.5

Control and Programming	**Bee Bot app** Guide on screen sprites (characters) around virtual maps to sequence and debug commands using logical reasoning. **CS2.1, CS2.2, CS2.3, CS2.5**	**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). **CS2.2, CS2.3, CS2.5**	**Dash robot** Control the robot to tell a particular story along a path that the pupils have prepared and then programmed into the path app.. **CS2.1, CS2.2, CS2.3**	**Switch n Glitch app** Develop problem solving skills, by sequencing directions, debugging and employing conditionals. **CS2.1, CS2.2, CS2.3, CS2.5** **Learn Code with El Chavo app** Develop sequencing skills in Level 1: Sequences I. **CS2.2, CS2.5**	**Hello Ruby** Use the [link](#) below and follow Episode 8: How do computers talk to each other? And what is the Internet made of? In this video, we'll learn more about the hardware, the software and the societal impact of the Internet.	**Scratch Jr app** Introduce Scratch Jr app, using the animal 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** **CS2.1, CS2.2, CS2.3, CS2.4, CS2.**

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 use in Pic Collage continents activity below. **DL2.1, DL2.2** | BBC Science: Habitats and the Environment Watch videos and take part in activities related to materials on the BBC Bitesize website. Demonstrate how to use the interactive links to search for the information needed to answer a query. Show how information can be presented as text or images. Sometimes they can listen to a narration of the text using a 'sound ' button. Draw the children's attention to the help button in the form of a question mark if they are 'stuck'. Discuss how to find out more about this | Begin to explore websites to identify information Use the DKFindOut website to research the Great Fire of London. https://www.dkfindout.com/uk/history/great-fire-london/ **DL1.1, DL1.2, DL2.1, DL2.2** | World Geography Identify and label locations using a range of maps including identifying continents, the UK, countries and capital cities. Set children tasks to complete independently or as a class using IWB. World Geography **DL1.1** | Internet research Begin to use simple keywords (guided by teacher) to locate information about famous explorers in a search engine. Use a child-friendly search engines: **T** http://www.kidrex.org/ https://www.kiddle.co/ **DL2.8** | BBC Science: What do humans need to stay healthy? Watch videos and take part in activities related to materials on the BBC Bitesize website. **DL2.1** |

		topic or related topics using the links at the bottom of the page. Set the children a second query which needs one of the links to be selected. **DL2.1**				
Online Communication and eSafety	**Using the VLE** Use the school VLE (virtual learning environment) eschools or platforms like Seesaw to show or allow children to partake in uploading content to a digital platform. For example a child could upload a collage made on the iPad to their own area on Seesaw.					
	Jessie and Friends Episode 1. In this video, pupils are introduced to watching videos online. It will help develop children's safety on the web and on social media/game websites. Link here **DL2.5**	**Jessie and Friends** Jessie and Friends Episode 2. In this video, pupils are introduced to the dangers of sharing photographs they take with a phone or tablet. **DL2.5, DL2.3**	**Common Sense Materials** How technology makes you feel? This lesson helps pupils pay attention to their feelings while using tech. With an engaging emoji game, students learn practical strategies for managing their feelings -- good, bad, and everything in between. **DL2.5, DL2.3**	**Common Sense Materials** Pause and Think Online Students understand that they should stay safe online and use the' Digital Citizens' to teach them how to be safe, responsible, and respectful online. **DL2.5**	**Jessie and Friends** Jessie and Friends Episode 3. Jessie, Tia and Mo learn that when playing online games they should keep their personal information private, only talk to people they know in real life and that they can tell an adult they trust if anything happens that makes them worried. **DL2.5**	**Common Sense Materials** Internet Traffic Lights. Using a fun traffic light activity, students learn how to identify "just right" content, giving them the green light to learn, play, and explore the internet safely. **DL2.5**
Modelling and Simulations	**Habitat simulations** Use the 'Build A' links below to allow pupils to explore designing different appropriate habitats for specific animals. Build a biome Build a habitat TopMarks **DL2.6**	**Comparing Maps** Use Side-by-Side Georeferencing to view two different ages of maps of Liverpool side-by-side. This could be done as a whole-class activity on the board. **DL2.6**	**Great Fire of London Simulation** Use the link below to find out what the Great Fire of London was really like. Follow the story and explore different artefacts from the time. Link here **DL2.6**	**Google Earth** Explore Muguremo and Zambia on Google Earth. Use street view zoom to find schools and shops and houses and compare these with Woolton. **T** Link here **DL2.6**		**Google Earth** Explore around the world on Google Earth, locate continents and oceans and look at UK countries and seas. Look at hot and cold countries in relation to the equator. **T**

						Link here**DL2.6**

Key Skills	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.

Information Technology

Tutorial Link

Word Processing and Desktop Publishing	**Digital Book** Use Book Creator app to create an eBook of a non-fiction book about Liverpool, combining text and images. This could be extended by including sound recordings. **T** **IT2.1, IT2.2, IT2.4, IT2.6**	**Typing Skills** Use BBC dancemat typing activities to improve keyboard skills. **IT2.2**	**Primary Writer app** Word Process their own pieces of writing around the Great Fire of London and select an appropriate background for the content of the writing. Focus on capitalisation, punctuation and spacing. **IT2.2**	**Microsoft Word/Google Doc** Begin to use a word processor to recreate documents comparing Woolton and Muguremo, linked to their English work and teach formatting of text. **IT2.1, IT2.2**	**Timeline app** Sequence key events from the life of an explorer. 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. **IT2.1, IT2.2**	**Pic Collage app** Create a poster about continents. Use images found online to locate on the correct part of a world map, to enhance their work. Include simple captions and labels. **IT2.1, IT2.2**

Multimedia	**Shadow Puppet Edu** Add pictures saved from Safari about buildings in Liverpool to the app. Add captions to the photos. Record a narration of their knowledge to create a film. Once they have saved their work, review and decide how to make improvements. **IT2.1, IT2.5, IT2.6**		**Koma Koma app** Create a stop animation movie to show the Great Fire of London. Children draw and cut out images of buildings. Rest the iPad over the edge of a table or chair and add coloured paper to represent flames. Cut out characters could then appear to put out the flames **IT2.3, IT2.5**	**Green Screen (Do Ink app paid)** Film children in front of scenes from Muguremo to explain what they know about everyday life in Zambia. **IT 2.5**	**Chatter Kids app** Make explorers speak. Take a picture from a book or download an image from the internet to the iPad. Encourage children to plan what they are going to say, scripting if necessary. Add to the app, mark the mouth and record 30 seconds of speech. Playback, evaluate, re-record if necessary and save as a video. **IT2.5, IT2.6** **Brushes Redux app** Use the painting app to draw self portraits in the style of Picasso from provided images. Build up depths and mixes of colour to create digital art. **IT2.3**	**Keezy Classic app** Explore sound boards, layering loops to create different effects. Pupils can even record their own sounds to link to a topic, poetry performance or phonics work. **IT2.6**
	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 show 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. At the end of the project, children can use their work to create a video presentation. **IT2.1, IT2.5, IT2.6**					

Data Handling	**Pictogram** Use J2 data or Pictogram creator to make simple pictograms e.g. linked to science or maths. **IT2.7**	**Bar Graph** Select from links here to create an online graph maker, linked to the Village information. Screen shots could then be taken of the finished graphs as evidence. www.mathsisfun.com www.j2e.com **IT2.7**	**Plant identifier** Collect a variety of leaves and then use the website, on an iPad, to take images of the leaves and then identify what tree or plant they have come from. **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.		