



Bidston Village - Computing across the Curriculum Long Term Planning Map - Y3

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
Science	Rocks and Soil	Humans and other animals	Magnets and forces	Light	Plants	Plants
English	Seal Surfer By Michael Foreman	Winter's Child by Angela McAllister	Stone Age Boy by Satoshi Kitamura	Big BlueWhale by Nicola Williams	Journey by Aaron Becker	Zeraffa Giraffa by Diane Hoffmayer
History and Geography	Stone Age to Iron Age Hemispheres, latitude, longitude. Europe including features, population, rivers and mountains.	Stone Age to Iron Age Europe international trade & natural resources	Why is the history of our local area important? Why do people settle on the Wirral?	Why is the history of our local area important? Why do people settle on the Wirral?	Ancient Civilisations, Egyptians, depth study. River Nile and development of Ancient Egypt	Ancient Civilisations, Egyptians, depth study. River Nile and development of Ancient Egypt
Music (from Musical Express)	Environment Composition	Human body Structure	Time Beat	In the past Pitch	Ancient worlds Structure	Structure
DT		Christmas decorations and party hats			Making a musical instrument	Puppets from Egyptian mythology
Art	Colour mixing, colour shading 3D sculpture Study Stone Age art		Watercolours, portraits and printing.	Digital photography	Still life - Egyptian artefacts Pottery	3D sculpture

	and reproduce in pastels.			Design, draw, paint or make images for different purposes	Patterns	
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Functional Skills (used throughout all areas of Computing)	<p>F3.1 Be able to use more than one hand to enter text, using the keyboard.</p> <p>F3.2 Be able to use cut, copy and paste tools by right clicking or using the edit toolbar.</p> <p>F3.3 With support, be able to save work effectively navigating a folder system e.g. Shared Drive, iPad camera roll, Google Drive or OneDrive.</p> <p>F3.4 When using a mouse or trackpad, be able to use left/right/double click and scroll.</p>
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Computer Science

[Tutorial Link](#)

Control and Programming	<p>Code Studio</p> <p>Code Studio. Create or print off existing user accounts for class on the website. Y3 should be working around Course C 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</p> <p>CS3.1, CS3.2, CS3.3, CS3.4, CS3.5, CS3.6</p> <p>The extension activities below are non-essential, but you may wish to consolidate and extend the work pupils do in Code Studio.</p>					
	<p>Scratch Jr app (intro) Use coordinates to program a Sprite to move to a precise position. Use motion blocks and repeats to control multiple sprites to move in a number of ways. Develop programs using the show, hide and say blocks. T</p>	<p>Scratch Jr app (habitats) Control animal Sprites within their habitats using motion and looks blocks. Sequence sprites actions by using wait and broadcast commands. Extend by building in additional scenes.</p>	<p>Tynker app or online (Space Cadet) Program repeating pattern of movement to solve problems by sequencing commands correctly and then including repeat and repeat until commands, extending to if/else blocks.</p>	<p>Investigate Algorithms Create(recipes) for making healthy sandwiches/pizza. Children use the template provided to sequence a set of instructions, by using a flowchart. Possibly laminate sheets and use whiteboard pens to allow resources to be reused. Link here</p>	<p>Lego Mindstorms (Fix the Factory) app Develop work done in Code Studio by introducing Lego Mindstorms, Fix the Factory App. Resources here: Link here T CS3.1, CS3.5</p>	<p>Playground Games Use CS Unplugged playground games to introduce flowcharts. Debug faulty code. Playground games: (hi-impact resources) CS3.2, CS3.3, CS3.5</p>

	CS3.1, CS3.2, CS3.4, CS3.5	CS3.1, CS3.2, CS3.3, CS3.4, CS3.5	CS3.1, CS3.2, CS3.3, CS3.4, CS3.5	CS3.1, CS3.3, CS3.4, CS3.5		
Computer Science Skills	<p>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.</p> <p>CS3.2 Is able to use 'repeat' and 'repeat until' loops when appropriate.</p> <p>CS3.3 Can use simple conditional statements (if and when commands) and understands the importance of time within a program (e.g. using wait), with support.</p> <p>CS3.4 Can make use of an input 'event' within a simple program e.g. when the start button is clicked.</p> <p>CS3.5 Be able to find errors in a simple program, and successfully debug to make the program work.</p>					

<h2 style="margin: 0;">Digital Literacy</h2> <div style="text-align: center; margin: 5px 0;"> Tutorial Link </div>						
Research: Internet	<p>Child Friendly Online Encyclopedia Research the Stone Age for non-fiction writing using: Simple Wikipedia, Kids Britannica or DKFindOut to find specific information. T DL3.3</p>	<p>BBC Bitesize: Human Body Use the videos and activities on the BBC Website to enhance and embed pupil learning about healthy eating and skeleton and muscles. DL3.1</p>	<p>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. Teachers could provide children with 2 or 3</p>	<p>Explorify (light) Odd one out: Sources of Light There is no right or wrong answer! These activities promote observation and discussion skills. DL3.1</p>	<p>BBC Bitesize: Plants Use the videos and activities on the BBC Website to enhance and embed children's learning. DL3.1</p>	<p>Key Search Questions Develop key search questions to find information about ancient Egypt. Teach strategies to increase the accuracy of keyword searches and make inferences about the effectiveness of the strategies. DL3.3</p>

	<p>BBC Bitesize: Rocks and Soils Use the videos and activities on the BBC Website to enhance and embed children's learning. DL3.1</p>		<p>Wirral centric websites and ask them to compare. DL3.1</p>			
<p><i>Online Communication and eSafety</i></p>	<p>School VLE (virtual learning environment) Use eschools or Seesaw to show or allow children to partake in uploading content to a digital platform and responding to teacher comments after they have submitted work DL3.3</p> <p>Quizizz and/or Kahoot (ongoing) Use the quiz based website for pupils to participate in online quizzes and continue throughout the year. Quizizz link Kahoot link</p> <p>Purple Mash Use Purple Mash Display boards and 2Dos to allow children to save and send their work accurately. DL3.2</p>					
	<p>Common Sense Materials Device-Free Moments Why is it important that we have device-free moments in our lives? Technology use isn't always a distraction, but there are definitely times when it's best to keep devices away. Learn when it's appropriate to use technology and practice making family rules for device-free time at home. DL3.5</p>	<p>Common Sense Materials That's Private! What kinds of information should I keep to myself? Staying safe online is a lot like staying safe in the real world. By helping a Digital Citizen sign up for a new app, children learn about the information they should keep to themselves. DL3.5</p>	<p>Common Sense Materials Digital Trails What information is OK to have in your digital footprint? Does what you do online always stay online? Learn that the information they share online leaves a digital footprint. Depending on how they manage it, this trail can be big or small, and harmful or helpful. Compare different trails and think critically about what kinds of</p>	<p>Common Sense Materials Who Is in Your Online Community? How are we all part of an online community? We are all connected on the internet! By learning the Rings of Responsibility, students explore how the internet connects us to people in our community and throughout the world. Help your students think critically about the different ways they connect with</p>	<p>Common Sense Materials Putting a STOP to Online Meanness What should you do if someone is mean to you online? The internet is filled with all kinds of interesting people, but sometimes, some of them can be mean to each other. With this role play, help your students understand why it's often easier to be mean online than in person, and how to deal with online</p>	<p>Common Sense Materials Let's Give Credit! How can you give credit for other people's work? With so much information at our fingertips, students learn what it means to "give credit" when using content they find online. Taking on the role of a detective, students learn why it's important to give credit and the right ways to do it when they use words,</p>

			<p>information they want to leave behind. DL3.5</p>	<p>others, both in person and online. DL3.5</p>	<p>meanness when they see it. DL3.5</p>	<p>images, or ideas that belong to others. DL3.5</p>
<p>Modelling and Simulations</p>	<p>Ancient Civilisations Use the Soundgate App to interactively explore a number of archaeological sites as they looked in the past. Three World Heritage Sites are virtually modelled visually and sonically, including prehistoric caves in Spain; Stonehenge in England; and Paphos Theatre in Cyprus. You can trigger musical sounds that may have been heard in the past and hear how the acoustics of the space enhances them. DL3.4</p>	<p>Stonehenge Simulation Explore a 360 degree virtual Stonehenge. Click on links within the tour to watch videos explaining different features of the site. Link here CS3.4</p>	<p>Magnet Hunt Uses compasses, iron filings and magnetic film to search for hidden magnets. Learn about the effects magnetic poles have on a compasses and their fields of strength. Link here. DL3.4</p>	<p>Light Simulation Use a laptop or desktop computer to access this simulation to explore how light can be bent. Link here DL3.4</p> <p>Light from the sun simulation Explore how light from the sun illuminates the earth and causes day and night to occur. This may need to refresh if asked for a subscription Link here CS3.4</p>	<p>Google Earth Explore Egypt. Compare human and physical features and locate different ancient sites at different scales. 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</p> <p>Use Voyager in Google Earth to find out about : Egyptian Museum of Antiquities Discover Egypt DL3.4</p>	<p>Sketch Nation online Create an up-jumping Egyptian game by drawing a pharaoh as the main character, different Gods as enemies and collect canopic jars as power ups to complete the level. Other Egyptian images can be the platforms. Control the range of variables in the advanced mode in the game to focus on engagement of the audience. DL3.6</p>

Digital Literacy Skills

- DL3.1** Be able to identify and use keywords for effective Internet searches to answer specific questions.
- DL3.2** Be able to independently share suitable pictures and work on an online platform.
- DL3.3** Independently, be able to use a suitable search engine to search for information to answer questions.
- DL3.4** Be able to enter data into a computer simulation, change data and observe changes in results.
- DL3.5** Be aware of some of the consequences of their online actions and be able to explain the importance of balancing game and screen time with other parts of their lives.

Information Technology

Tutorial Link

Word Processing and Desktop Publishing

Typing Skills

Use [BBC dancemat typing](#) activities to improve keyboard skills.

IT3.1

Purple Mash writing Frame

[Stone Age](#) Use some of the writing frames. E.g. and information text about Mesolithic hunter gatherers.

IT3.1

Pic Collage app

Combine images and text to present an information poster on the Iron age.

Independently save and add images and text and format it with consideration to the audience.

IT3.1, IT3.2

Adobe Spark Page app

Create a webpage by combining images and text. Use previously researched information about the Wirral. (A class login will be required).

IT3.1, IT3.2, IT3.3

Microsoft Word/Google Docs

Layout a formal document linked to English e.g. retelling of a Big Blue Whale. Practice typing with two hands, consider layout and add images. A piece of pre-written work from English could be used for this task.

IT3.1

Purple Mash writing Frame

[Ancient Egypt](#) Use some of the writing frames. E.g. write about an Egyptian God or Goddess studied.

IT3.1

Storyboard That

Create a comic-strip story linked to Ancient Egypt on PCs with the [Storyboard That website](#). Plan the story, considering scenes and dialogue and story progression. Use Google logins to access via PCs. Select characters and backgrounds. Change elements of the appearance.. Format speech bubbles and captions with consideration for

Microsoft PowerPoint/Google Slides

Create a presentation about Ancient Egypt. Name the documents. Add images and enter text as titles. Combine images and text with effect and ensure word processing basics (capitals, punctuation, spaces, etc) are embedded. Format text to make it bold and underlined. Add additional slides.

IT3.1, IT.2

					the audience. NB Pupils will need individual logins. IT3.1, IT3.2, IT3.3	
Multimedia	<p>Koma Koma app (Stone Age) Create a stop motion animation film to show cave paintings coming to life. Use the iPads resting over the edge of tables/ chairs pointing at the floor. Animate cut outs of hunters and mammoths firing spears and arrows. Inspired by this Ice Age clip. Use the onion skin and show how to delete unwanted images. Related Teach Computing Resources (free login required) IT3.2, IT3.3, IT3.4</p> <p>Incredibox Combine and layer various musical beats, melodies and vocals for pupils to compose their own song. Use the recording tool to create a composition. This can be shared via a hyperlink and saved as a QR code if needed. Children can share their work via</p>	<p>Bandlab (or Audacity) Record an interview with a stone age person, showing events from their perspective. Add to Bandlab, where the raw recording can be edited, manipulated and have musical beds added. Sound effects from websites such as Sound Bible and Freesound. A teacher account can be created to generate pupil logins. T IT3.4</p>	<p>Purple Mash 2Beat Use 2Beat to combine 4 different percussion sounds to layer beats to create and save short compositions. IT3.4</p>	<p>Photo editing apps Use a variety of filters and effects to edit photographs taken in the local area, to create artwork. Use Photoshop Express app, Pixlr app or Pixlr online website. T IT3.2</p>	<p>Shadow Puppet Edu app Use Shadow Puppet Edu app to create instructions on how to mummify a human being. Children can take photographs on the iPads of the different steps. Then order the steps correctly, adding text to explain the process. T IT3.1, IT3.2, IT3.3, IT 3.4</p> <p>Chrome Music Lab Explore the website to investigate how sound works and can be manipulated digitally to create music. IT3.4</p>	<p>Brushes Redux app Draw their own simple artwork related to the topic being studied, for example Egyptian hieroglyphics. The focus should be on children choosing the most appropriate tools for the specific goal. IT3.2</p> <p>Green Screen Use DoInk green screen app to present a 'time travel report' from Ancient Egypt. Costumes and scripts pre-written in English lessons can enhance the children's work. IT3.2, IT3.3, IT3.4</p>

	email or upload links to learning platforms. <i>This could be done as part of a music lesson.</i> T Link here IT3.4					
Data Handling	Purple Mash 2Question Use the apps to interrogate existing branching databases and create records to populate their own to classify rocks. IT3.6	Purple Mash 2Graph Use the app to create a range of block, pie and line graphs to show information. IT3.6	Online Graph Maker Use an online graph maker to represent data collected using light datalogging activity above. Investigate the key features of a graph including title, axes, labels etc. Save as an image for use in another app or software or print their graph. IT3.6	Galactica Luxmeter app Use the app to explore how light levels change within the classroom. Take screenshots of readings around school. These results can be plotted on a digital graph maker or in Pic Collage on a plan of the school to spot trends. IT3.5	Spreadsheets Introduce the concept of spreadsheets and their uses. A variety of resources and lesson plans here: Primary Resources Begin to use a Microsoft Excel/Google Sheets spreadsheet to enter information in the cells and perform simple calculations. Use this to create a purchase list of items needed for an Egyptian holiday for example.	
Information Technology Skills	IT3.1 Be able to format the text to indicate relative importance, including bold, italic, underline and strikethrough. IT3.2 Be able to select and use appropriate editing tools in an image-editing package for a specific purpose. IT3.3 Be able to sequence still images, video, audio clips and text to create a video presentation. IT3.4 Can locate, record, save and retrieve sounds in multimedia software. IT3.5 Be able to use data loggers to collect snapshot information and use information from a given source. IT3.6 Be able to enter data into a graphing package and use it to create a range of graphs.					