



Computing Long Term Planning

Detailed are the topics that we will be teaching this academic year. Computing units have been assigned to topics.

	Topic A	Topic B	Topic C	Topic D
F1	Do you want to be friends?	Why do squirrels eat nuts?/Why do leaves go crispy?	Will you tell me a story?	TBC
F2	Enchanted Woodland	Tell me a Story	Do Dragons exist?	Who lives in a rockpool?
Year 1	Memory Box Multimedia	Dinosaurs Programming	Rio De Vida Communication	Bright Lights, Big City Digital Literacy (research) Data
Year 2	Land Ahoy Communication	Moon Zoon Programming	Towers, Tunnels and Turrets Digital literacy	Street Detectives Data Multimedia
Year 3	Road Trip USA Digital literacy	Tribal Tales Multimedia	Gods and Mortals Communication	Predator Coding Data
Year 4	I am Warrior! Coding	Potions Multimedia	Traders and Raiders Data Communication	1066 Digital Literacy
Year 5	Pharaohs Digital Literacy	Stargazers Coding Data	Peasants, Princes and Pestilence Multimedia	Off with her Head Communication
Year 6	Hola Mexico! Digital Literacy and Data	A Child's War Multimedia	Revolution Communication	Frozen Kingdom Programming

F1 - More detail

	Coding and Programming	Data	Communication	Digital Literacy	Multimedia
<p><u>Topic A</u> <i>Do you want to be friends?</i></p>	<ul style="list-style-type: none"> Be aware of everyday devices that sense data e.g. bar codes, - set up a shop role-play - children scan barcodes on items. Weekly QR code - choose a child to scan to show a picture linked to topic 	<ul style="list-style-type: none"> Sort the children in our class, by picture, into boys and girls. 	<ul style="list-style-type: none"> Have a laminated keyboard on the wall - children practicing finding letters Same as above using a real keyboard 	<ul style="list-style-type: none"> With support, children accessing phase 1 games on Phonics Play With support, children accessing counting games on Top Marks 	<ul style="list-style-type: none"> Explore the camera on the iPad. Press the camera button to take your photo. With support, try introducing yourself on video.
<p><u>Topic B</u> <i>Why do squirrels eat nuts?</i></p>	<ul style="list-style-type: none"> Use basic directional language to control a Beebot Stick a squirrel on a Beebot and move it towards a nut. <ul style="list-style-type: none"> 	<ul style="list-style-type: none"> Begin to sort objects according to similar characteristics - grouping animals based on food they eat Create simple classification e.g. animals with fur 	<ul style="list-style-type: none"> Use a paint app on the iPad to draw an autumn picture - swapping colour e.g. red leaf Use paint apps to make shapes and name them. Create a tree using shapes. 		<ul style="list-style-type: none"> Look at autumnal photographs on the IWB or iPad screen. Spot shapes.
<p><u>Topic C</u> <i>Do you want to tell me a story?</i></p>	<ul style="list-style-type: none"> Put a simple story in order using 3 talking tins. Pushing buttons to play and then ordering. 	<ul style="list-style-type: none"> Sort favourite stories into groups of your choice e.g. animal stories, princess stories etc 	<ul style="list-style-type: none"> Use a painting app on iPads - mark making about a favourite story. <ul style="list-style-type: none"> 	<ul style="list-style-type: none"> With support, click play on a story on YouTube (St Oswald's story time video). 	<ul style="list-style-type: none"> Video Miss Waszak reading a story. Watch this back using the play button. Have a go videoing yourself telling a

					story (choose a picture and tell a story about it)
<u>Topic D</u>					

F2 - More detail

	Coding and Programming	Data	Communication	Digital Literacy	Multimedia
<p><u>Topic A</u> <i>Enchanted Woodland</i></p>	<ul style="list-style-type: none"> Use a range of electronic toys in play situations. Use basic directional language Programme a Beebot to move Bee bots to move through a 'forest' Have a go at the Beebot app/lightbot on iPad 	<ul style="list-style-type: none"> Begin to sort photos of animals into groups On the IWB sort animals into groups of your choice Begin to create pictograms showing how many nuts squirrels have eaten - on IWB or practically. 	<ul style="list-style-type: none"> Begin to recognise where letters are on a keyboard - real keyboard to practice on, iPad keyboard, IWB keyboard, laminated keyboards. Practice typing in simple animals e.g. bee, owl, deer Use paint programmes to draw and label forest animals 	<ul style="list-style-type: none"> Navigate to a website Use the iPad and click on the safari app. With support - search for a picture of a forest animal 	<ul style="list-style-type: none"> Use the camera app on the iPad to take a photo of trees in our school area - take one every term to see how the tree changes through the year.
<p><u>Topic B</u> <i>Tell me a story</i></p>	<ul style="list-style-type: none"> Scan a QR code to reveal a picture/book cover. Match the same printed picture to the printed code. 	<ul style="list-style-type: none"> Create pictograms based on a story E.g. the hungry caterpillar to show what he ate Begin grouping stories based on their theme/author e.g. animal stories, Roald Dahl stories e.g. Begin to look at simple Ven 	<ul style="list-style-type: none"> Use Book creator to create a story of your own. Use the paint tool to create images Record your voice telling the story OR have a go at typing it 	<ul style="list-style-type: none"> Begin to navigate through the St Oswald's Storytelling YouTube channel to listen to a story. 	<ul style="list-style-type: none"> Use multimedia equipment to capture still and moving images. Record yourself acting out a part of your favourite story. Begin to navigate through the camera roll to watch your story back and look at your images.

		<p>diagrams to group (using hula hoops and IWB)</p>			
<p>Topic C <i>Do dragons exist?</i></p>	<ul style="list-style-type: none"> Play with simple adventure programmes on the iPad e.g. Scratch to create an animated dragon (linked to above activity) I can reorder a sequence of instructions and correct errors in programs (debug) 	<ul style="list-style-type: none"> Use a bar chart to show dragons from different stories - the y axis shows whether they were good/bad. I can answer and ask questions about bar charts 	<ul style="list-style-type: none"> Develop mouse control using the laptops Using a paint programme and the mouse, draw a dragon. Using paint software on the ipad: draw a dragon Talk about which was easier and why 	<ul style="list-style-type: none"> Use appropriate websites to find out more information about dragons (with support) Use the image search to search for pictures of dragons (choose an image to draw/paint) <p>E-safety: I know I need to follow rules to keep safe online</p>	<ul style="list-style-type: none"> I can paint with different colours using undo or eraser to correct mistakes I can use different tools such as brush, pen, line, shape and fill
<p>Topic D <i>Who lives in a rockpool?</i></p>	<ul style="list-style-type: none"> Listen to the sounds of a beach - what can you hear? Play again to try to find more. Explore ways of making and listening to sounds using simple programs and devices (Voice notes and talking tins) 	<ul style="list-style-type: none"> Look at a picture of a rockpool. Count the creatures in it. Use the IWB to create a bar chart to show number of 'x' creature. Create a pictogram to show the same information. 	<ul style="list-style-type: none"> Begin to use a keyboard to produce text on screen, and develop familiarity with letters, numbers, backspace, arrow keys and space bar Drawing creatures and labelling with text. 	<ul style="list-style-type: none"> I can read words, look at pictures and watch videos on a website to find information about rockpools and beaches. 	<ul style="list-style-type: none"> Work as a class to make a model of a rockpool with creatures. Use a digital still camera to take a picture Understand the need to frame the image and keep the camera still

Year 1 - More detail

Topic A - Memory Box

Multimedia

What this could look like:

- Create pictures linked to the topic, exploring different tools and apps for this. Drawing toys (old and new)
- Take photographs for a purpose - of something they have done topic related - e.g. one of their toys.
- Create sound recordings - explaining how to play with a toy of their choice and link this with the image they've taken.

Topic B - Dinosaur Planet

Programming

What this could look like:

- Using a Bee Bot on the floor mat Entering commands to follow a route.
- Creating their own dinosaur and floor map. Creating their own algorithm to get the dinosaur to the goal (real life not app based)
- Describe what algorithms are and how they are used e.g. create a set of instructions on how to get out of a maze.
- Knowledge of algorithms: an algorithm is a set of instructions. Algorithms can be carried out by humans and computers. There can be more than one algorithm for a task, the most efficient one is the best.

Topic C - Rio De Vida

Communication

What this could look like:

- Beginning to understand how to use word processing
- BBC Dance mat to become familiar with keyboard layout
- Learning the function of the keyboard keys.
- Using word processing software to re-create one of their writing activities.

Topic D - Bright Lights, Big City

Digital Literacy & Data

Digital Literacy: What this could look like:

- An E-safety lesson about websites and supervision
- Navigate to a given website linked to topic.
- Talk about information they can find on a website
- Find the answer to given topic questions - navigate with a purpose

Data: What this could look like:

- Collect a set of data linked to topic e.g. how many people have been to London.
- Represent the data as a graph using appropriate software.

Year 2 - More detail

Topic A - Land Ahoy Communication

What this could look like:

- Use and improve word processing skills in a range of situations. Use wider range of punctuation, editing and formatting skills to improve their work
- Typing up a piece of English work
- Be able to discuss how they have changed their work and how it can be improved

Topic B - Moon Zoom Programming

What this could look like:

- Pupils make predictions of how to move a rocket from x to y and check if they were correct
- Pupils problem solve and correct errors to achieve the outcome correctly
- Test and correct a set of give instructions
- Explore simulations and see how they might be similar / different to real life. Discuss when simulations might be useful

Topic C - Towers, Tunnels and Turrets Digital Literacy

What this could look like:

- Be aware that each website has a specific address and that the address needs to be entered correctly - navigate to websites by entering address, and use to find information for topic work
- Discuss how there might be adverts on web pages - and these can mainly be ignored
- Discuss how some information may be inaccurate
- Use key words related to topics to search for information within a safe environment e.g. within BBC site or set up Google custom search for pupils to safely search the internet (will only return searches from websites you have specified)

Topic D - Street Detectives Multimedia and Data

Multimedia: What this could look like:

- Take photographs and review quality, deleting those that are blurred etc - be selective and consider how their photos could be improved
- Use photos within document / online book - take photos for a purpose - our local area, our school, forest school
- Take set of photos to share e.g. photos of the school/village
- Take it in turns to be the class photographer, documenting key events and sharing via blog or website

Data: What this could look like:

- Understand that a database is a set of information organised by fields of information
- Navigate a simple database to find information and answer questions, e.g. how many birds are in Finningley.
- Collect data on a chosen topic e.g. linked to local area, transport survey. Present as a bar chart and show understanding through answering and asking questions.

Year 3 - More detail

Topic A - Road Trip USA

Digital Literacy

What this could look like:

- Navigate the internet with increasing confidence to find information and images safely
- Know that a web address is also called a URL - unique resource locator, i.e. a unique address to find a website
- Know that not all information found on the internet is accurate, and why this might be so
- Use information found on internet for a purpose, and share with others - do not just copy and paste information found, but use it to write their own text - researching America/states.
- Creating a poster using research about a state - comparing to the UK

Topic C - Gods and Mortals

Communication

What this could look like:

- Produce documents with increasing confidence using text and images, formatting and editing tools
- Create presentations incorporating text and images. Start to add effects but consider audience and appropriateness of different effects
- Know how to email, add and open attachments - Greek pen pal school or any link school.
- Know how to remain safe when using email and when it is appropriate not to open emails or attachments
- Send and receive emails purposefully e.g. to share information with link school

Topic B - Tribal Tales

Multimedia

What this could look like:

- Use print screen to capture an image that has been created or website navigated to
- Paste image into paint software so a part of the image can be selected and used for different purpose, e.g. instructions to use a piece of software, how to play a game
- Plan a book trailer for stone age text
- Shoot video clips and combine to create trailer
- Perform simple editing of clips and add title and credits

Topic D - Predator!

Programming & Data

Programming: What this could look like:

- Write programs in software to draw different regular shapes - refine using the repeat command
- Plan out program and break into smaller steps when tackling
- Design a rainforest animal sprite (Scratch). Draw the outline of your animal and code adding the print.

Data: What this could look like:

- Explore branching database to see how it works and is structured - animals in a rainforest
- Sort a set of items in different ways to consider different sorting options - animals in layers of the rainforest
- Create a branching database to sort a set of items
- Explore a database by asking questions to find relevant information
- Find information for graph on given topic by considering questions to ask participants, and design questionnaire to find the information

Year 4 - More detail

Topic A - I am Warrior Programming

What this could look like:

- Investigate existing programs, evaluating them and consider how they could be improved.
- Design and write a program / game / animation for a given purpose including specific programming features
Animation using Scratch Jr about Vikings?

Topic B - Potions Multimedia

What this could look like:

- Using vector based software create a design or logo for your own potion company by grouping and copying sections of an image
- Design a castle plan by grouping and repeating sections of an image or design, ordering shapes as needed
- make photos for product design e.g. creating a potion bottle - could link to the logo design of the company you made?

Topic C - Traders and Raiders Communication and Data

Communication: What this could look like:

- Produce documents and presentations with increasing competence, incorporating different layouts and effects as appropriate, showing an awareness of audience
Create documents and presentations to share information with others - for a purpose - about a Viking journey/settlement
- Contribute to a class / school blog sharing information about topic
- Explain why using avatar and online name is advisable

Data: What this could look like.

- Start to explore spreadsheets by using existing ones to see how they can be changed and used - create a Viking shop spreadsheet
- Add text and numbers and insert simple formulae
- Test formulae by changing numbers in cells - does the result change too? - people buying equipment - profits etc
- Format text within a spreadsheet - link to formatting text in other software

Topic D - 1066 Digital Literacy

Digital Literacy: What this could look like:

- Research information linked to topic work
- Be aware that the more accurate the search term, the more relevant the results
- Check information found on one website against another to verify results
- Summarise information found and present in own words - not just copy and paste from website

Year 5 - More detail

Topic A - Pharoahs Digital Literacy

What this could look like:

- Use the internet to productively search for information and resources to support work in other subjects
- Understand that some sites will be biased e.g. newspapers with political stance
- Be aware of copyright and modify searches to retrieve images that can be used under Creative Commons licence e.g. copyright free or able to use in Education for non-profit
- Produce a list of websites as reference for work produced
- Know how to report concerns about websites or contact from strangers

Topic B - Stargazers Programming and Data

What this could look like:

- Design and create a game incorporating variables, testing and correcting errors as they go - Get the rocket to the planets etc
- Investigate online databases
- Design and create own database e.g. space and planets. Temperature, size locations of planets
- Create graphs from databases
- Create more complex spreadsheets to model mathematical problems and to solve real life problems e.g. budgeting or funding a class trip
- Solve given problems by creating spreadsheets, including creating graphs from data

Topic C - Peasants, Princes and Pestilence Multimedia

What this could look like:

- Make a 3D model of product - wonder product to cure the plague
- Design and make a poster to advertise product
- Manipulate photos and consider creative aspects as well as the power to distort our perceptions of beauty and health, e.g. air-brushing photos in magazines (Dove Evolution video <http://www.youtube.com/watch?v=iYhCn0jf46U>)
- Create video for an advert - linked to persuasive writing (and websites) and photo alteration / advert product

Topic D - Off with her Head! Communication

Digital Literacy: What this could look like:

Produce documents and presentations with a common theme, to provide consistency of font and style -posters and PowerPoints about Henry VIII

Show an awareness of audience

Be able to produce presentations with multimedia elements, and with slides in a non-linear design e.g. buttons to give options within the presentation

Year 6 - More detail

Topic A - Hola Mexico! Digital Literacy & Data

(You will need to look at the progression of skills from other year groups to see what needs to be incorporated)

Digital Literacy: What this could look like:

- Research how networks and the internet etc. work
- Create a presentation explaining how they work

Data: What this could look like:

- Design a more complex spreadsheet model for a purpose, link to problem-solving skills

Could create a budget for planning a Mexican festival. E.g. buying ingredients for food, decorations, drinks, music etc

Topic B - A Child's War Multimedia

What this could look like:

- Take photographs using filters and tools to enhance as required for given purpose - war time drama work - photographing and videoing.
- Plan and create an animation to that shows the process of evacuating children
- Create a simple podcast

Topic C - Revolution Communication

What this could look like:

- Create documents and presentations for a variety of audiences and purposes, considering the appropriateness of text and formatting choices - could use word processing software to type up their English work and add in images that support the writing.
- Present their documents and presentations to others and consider improvements
- Use a variety of online tools safely and with respect for others

Topic D - Frozen Kingdom Programming

(You will need to look at the progression of skills from other year groups to see what needs to be incorporated)

What this could look like:

- Design, plan & create a more complex game / app with purpose and linked to topic / other subject -
A game to get animals to their food in the Antarctic etc