COMPUTING CURRICULUM OVERVIEW

CHERRY TREE PRIMARY SCHOOL

	AUTUMN 1	AUTUMN 2	SPRING 1	SPRING 2	SUMMER 1	SUMMER 2
The foundation of Computing in EYFS	• Beebots moving forwards and backwards • Using a CD player • Completing games for all areas of the curriculum on the IWB and class computers • Turning on and off a torch • Using google to find out information					
Year1	Online Safety & exploringPurple Mash Grouping and sorting Links Use 3D models on computers to explore the human body Use Google Street View/Mapsto explore the local area and talk about where we live and what makes it special Compare our area on Street View to somewhere else in theworld	Pictograms Lego builders Links Use Google Expeditions and other virtual field trip tools to explore the castles around the UK Introduce to pupils tools such as Kiddle to research information securely and effectively on Kings and Queens of the UK Use MashCams to create photos of children as Kings or Queens of the UK	Lego builders Maze explorers Links Use Google Hangouts or Skype for Educators to book in a session with a doctor or someone that works in the medical field Look online for virtual tours of a hospital or a video of a hospital to inspire work e.g. pieces of writing	Animated story books Links Create an animated story book on PM related to a toy coming to life Use websites such as *How Stuff Works* to research the process of toy making Linking to local area, schedule a class video call with someone that works for Amazon or a toy retailer so that they can share their experiences working with toys	Coding Links Use Google Earth to situate learning and teach children the location of the villages and areas that they are learning about in Africa. Children could use Google Expeditions to study interesting African areas Children could use NatGeo Kids to look at the culture of different African nations and how African villages are similar and different from their own Use 2Beat tool on PM to explore drumming	Spreadsheets Technology outside school Links Use Google Expeditions to explore areas in the oceans. You can even go underwater and see what the environment looks like VR workshop visit to bring the topic to life with a VR safari underwater Use PM music tools to create their own versions of the songs that they are learning in class. For example, creating their own pirate sea shanties
Year2	Codi ng Links Use Google Maps/Street Viewto explore Watford Use cameras on Chromebooksto take pictures of local area and write about them Use search engines such as Swiggle or Kiddle to researchabout local area in a safe way	Online safety Spreadsheets Links Use virtual tools to research about the Great Fire of London Exploring digitised historical documents from the time using the National Archives collections online.	Spreadsheets Questioning Links Using websites such as How Stuff Works to explore the workings of a shuttle. Looking at Q and A videos from astronauts. Looking at resources provided by NASA and other space agencies. Children could use tablets or Chromebooks to film their own documentaries about a planet or an element of space travel	Effective searching Creating Pictures Links Looking at National Trust resources online to gain inspiration for artwork or theme work. Creating a short video showcasing and explaining their artwork. Creating a tutorial-style video on how they created their own musical instruments out of natural materials.	Making Music Presenting Ideas Links Link with PM computing topic, they could use PM music tools to experiment with creating melodies for their music projects for that term. Use recording tools such as Audacity to record their Indian chants for showcasing online to the wider public.	Presenting Ideas Links Linking with the PM topic for the term, children could produce their own presentation on their own conservation ideas or a conservation project in their local area. Use Skype for Educators or Google Hangouts to talk to somebody involved in a conservation effort in the local area (e.g. a park keeper)
Year3	Codi ng Links	Online Safety Spreadsheets Links	Touch Typing Emails and email safety Links	Emails and email safety Branching databases Links	Branching databases Simulations Links	Graphing Links

	Exploring the digital resources of local libraries to enhance understanding of local history. Look at Warner Bros. Studio resources online to set the mood for learning about Harry Potter Studios. Green screening activities and learning how to sound track a scene using video editing, Green Screen and audio recording software.	Use apps to create an "interview" with a Stone Age person and talk about their dwellings. A Location, Location, Location style video showing off the inside of a Stone Age property programme. Using 3D modelling app on PM to create plans before pupils create their own Stone Age dwelling outside.	Using websites to explore the inner workings of a steam engine and the role the forces have on propelling a steam engine. Using concept mapping app on PM to map out understanding of scientific concepts relating to forces. Filming short video clips then slowing them down to demonstrate forces at work more clearly. Linking video games and forces together by talking about collision detection in games such as Mario Kart and other racing games. This can be demonstrated further by using the game creation tools on PM.	Google Expedition of the pyramids and other areas of North Africa. Creating 3D models of the pyramids using tools on PM. Using Google suite to produce reports on the Egyptians. Using Chromebooks or an iPad to write, edit and produce a nature documentary on desert habitats.	Using Google Expeditions to explore a volcano. Use 3D modelling understanding the layers and components of a volcano. Using search engines to research and produce a fact file about Iceland.	Using 3D models to explore the makeup of a bee and understand the different components that allow them to produce pollen. Using PM music tools, compose own melodies inspired by bees from works such as Flight of the Bumblebee. Use PM database tools or 2Connect to create a classification key for the wildlife surveys around the school. Create a "save the bees" awareness campaign using video editing software or digital design apps on PM.
Year 4	Coding Links Using online mapping services and Google Streetview to explore the local area to gain a greater understanding of local landmarks. Use digital archive resources from local libraries to bring to life local history. Schedule a video call with a member of the Verulanium museum to discuss the rich Roman connection that the local area has, especially in St Albans.	Online Safety Spreadsheets Links Use Google Maps to explore local area. Use OS digital resources to understand how maps are created. Linking to Orienteering, use the Purple Pen app to create their own Roman-themed orienteering challenges around the school grounds. Use websites such as WordWall to create interactive starters or plenaries that focus on increasing knowledge of European countries, capitals, cities and other geographical features. Train chn on how to create their own quizzes to encourage greater engagement with the areas of the world that they are learning about.	Spreadsheets Writing for different audiences Links Create an "interview" with the crew on the Titanic exploring how they felt when the ship was in danger. Use video editing and audio recording software to capture this. Use Google Street View to explore the dockyards of Belfast. Use the National Archives to see if they can find some interesting news articles or government reports about the Titanic. Use interactive tools online to plan circuits children wish to build in science class.	Writing for different audiences Logo Links Children use apps such as Google Drawings or apps on PM to create their own Ancient Greek shield or Roman shield inspired by their learning. Use 2Create a Story or 2Animate to create a comic strip or animation inspired by the story of Odysseus or other Greek or Roman mythical tales. Explore the collections at the British Museum virtually to bring some of the artefacts that they have to life. Create quizzes based on their learning use the quiz creation tools on PM or other websites such as WordWall, Quizizz or Kahoot!	Animation Effective searching Links Using paint tools on PM to create their own Andy Warhol-esque digital pieces of artwork. Effectively search for examples of Warhol's work using safe search engines such as Kiddle image search or Swiggle image search.	Effective searching Hardware investigators Links Using presentation apps to create a slide show or some kind of presentation raising awareness of the climate crisis. Looking at traffic conditions in the local area and using spreadsheets or database tools to record and analyse data of traffic in the local area. Produce graphs and present to others in the school as to what the findings of the traffic survey is. Perhaps further links with mathematics tools that can be found PM.onelik
Year 5	Coding Links Using search engines effectively in order to find information about famous local people. Use music tools on PM to enhance understanding of	Online Safety Spreadsheets Links Use search engines to gain an understanding about the workings of Viking longboats. Use 3D	Spreadsheets Databases Links Understanding the history of the internet by using search engines to research and PM writing tools to produce fact files	Databases Game Creator Links Create 3D sculptures using digital drawing tools inspired by the work of Anthony Gormley.	Game Creator 3D Modelling Links Use Google Earth and Google Maps satellite view to explore the Amazon rainforest. Do the same with the local area to gain an understanding of the	3D Modelling Concept maps Links Use WWF website to gain information about the species that are endangered in the world as a result of

	melody and use tools such as 2Beat to increase depth of knowledge about rhythms. Conduct an "interview" with famous local people such as Nicholas Breakspear about what it was like to live in Abbots Langley/Bedmond during the time that he was alive and what it was like to be the only English pope ever. Contextualise this task by using Google Expeditions or other virtual field trip tools to take a look at the Vatican.	modelling apps to plan out their own longboat designs to test out scientifically (e.g. Paint 3D app on Windows computers/PaintZ for Chromebooks). Create stop motion animations of their longboats in action as an experiment as to the most effective longboat design for speed and durability. For this they may wish to experiment with a video editor to introduce title cards, slow motion or captions to explain what is going on in their video.	on Tim Berners-Lee. Y5 to do a lesson for Y2 about the solar system later on the year to support their learning? They could produce helpful resources to help the Y2s with their learning using apps such as PowerPoint, Google Slides, 2Connect to show off their learning and let the Y2 children learn in the process.	Look at his sculptures on Google Street View to understand how his sculptures look in the world around them. During their learning in Computing about creating games, chn could be encouraged to create an educational game on an aspect of their learning. For example, a game that requires them to sort materials by their properties etc.	similarities and differences of these two landscapes. Linking into their work on 3D modelling, challenge the children to see if their can create a rough £D model of the layers of the rainforest to present to each other.	deforestation. Linking to concept mapping in Computing, get the children to produce presentations about the plight that is deforestation that allows then to show off their concept mapping skills.
Year 6	Coding Links Using apps, explore the inside of the human body in order to gain an understanding of the inner workings of the body. Using presentation or video editing software, produce presentations on the human body. Using digital archives, explore the significance of the Grand Union Canal to the local area and contextualise the Canal in the wider UK	Online safety Spreadsheets Links Using archives, explore the information that we have about the British Empire. Explore Victorian era maps and use services such as Google Maps to gain an understanding of the scale of the British Empire at the height of the Victorian period. When revisiting electricity, explore in greater detail the role of electricity in the hardware of computers and perhaps understand on a very fundamental level how electricity allows a CPU to function correctly.	Spreadsheets Blogging Links Explore archives from around the world that have information about lighthouses. Use 3D modelling software to design their own 21st century lighthouse to bring the idea of a lighthouse up to date. Explore lighthouses around the world using Google Maps or Google Earth. Explore the workings of an X Ray machine using resources such as How Stuff Works. Create an interactive presentation and/or video related to how an X Ray machine functions. Use simple coding to produce a light show or a light toy (using a piece of hardware such as a micro:bit or a Raspberry Pi)	Blogging Text adventures Links Using archival materials from National Archive digital archives and digital drawing and publication software and apps, children could produce their own WW2 propaganda posters. Using 2Connect on PM, children could mindmap to a greater depth about the emotional effects certain WW2 posters have on them. Linking into the Computing topic about blogging, children could produce an informative blog about WW2 artwork and propaganda.	Networks Quizzing Links On returning from their school journey and linking into their Computing concept of quizzing, children can produce their own quizzes about what they have learnt about Swanage during their trip. Linking to their school journey to Swanage, children could produce a presentation about their activities to deliver to the rest of the school in an assembly about what they have learnt.	Quizzing Binary (optional unit) Links Children to use 3D modelling apps and digital drawing apps to design ideas for props for the school production. In their music to supplement their understanding, children could be set work at home to produce their own melodies and beats using 2Melody and 2Beats on PM.