Britannia Bridge Computing Long Term Plan 2023/24

Class	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
N3 Caterpillars	All about me	Celebrations	Down in the woods	Heroes and villains	Amazing animals	Under the Sea
	Children will look and use technology to enhance the 7 areas of learning in provision by: • The technology itself - PC, laptop, iPad, BeeBots, remote control devices etc. • What is the technology around us - in the home, café, vet, shops, garden center etc. • Use technology to develop learning - games, radio, TV, you tube, internet • Using technology appropriately - taking turns, ownership of work					
Reception Butterflies	**Digital citizenship- Online safety** Recognise communication using the World Wide Web Keeping safe and healthy when using computers Talk about the "Butterfly Feeling" **Digital literacy** Logging in Mouse and keyboard skills Following instructions to complete activities		**Computer science** Directional language Use remote control toys Introduce Beebots **Digital Literacy** Logging in Mouse and keyboard skills Following instructions to complete activities Use software and online apps		**Information technology** Name the parts of a computer correctly Know that information can be stored on the Web Discuss what personal information is and who to share it with Take ownership of work **Digital Literacy** Logging in Mouse and keyboard skills Following instructions to complete activities	
Year 1 Bumblebees	**Digital citizenship- Online safety** Recognise warning signs while online and know how to get help. Accessing the internet in an age appropriate way Know what information should be kept private Know how to behave appropriately online Now the rules for keeping safe online.	**Digital literacy** Logging in Typing Keyboard skills Simple data handling Explore the creation of a simple music track	**Computer science** **Focus-Algorithm- a set of instructions for everyday** Consolidation- Development of directional language Debugging BeeBot activities when things go wrong Problem solving Following simple instructions Discuss and plan simple algorithm	**Computer science** **Focus- Algorithm- a set of instructions for everyday** New learning- Plan a simple algorithm Create a simple algorithm Predict the outcome of a simple algorithm Debug a simple algorithm Instructional (algorithm) writing	**Information technology** Logging in Typing skills The introduction of the microchip and how it changed our lives- research Jack Kilby and Robert Noyce Search using digital tech and key words Know why we use passwords Understand that people own work online	**Consolidation project for Digital Literacy** Produce a finished piece of work demonstrating the application of skills taught in Autumn 2 Possible project ideas: Personal presentation- All about me Profile of Information Technology Pioneer Animated Stories- Purplemash unit 1.6.
Year 2 Seahorses	**Digital citizenship- Online safety** Understand that people might behave and communicate differently online. Know that it is ok to say 'no' Think carefully before adding information about myself online	**Digital literacy** Logging in Typing Keyboard skills Introduction to the word processor Introduction to creative multimedia- sound, pictures and film Simple graphs and charts Branching databases	**Computer science** **Focus-Program- a set of precise instructions in for a computer** Consolidation of algorithms Development of directional language Debugging BeeBot activities when things go wrong Problem solving Following simple instructions	**Computer science** **Focus-Program- a set of precise instructions in for a computer** Plan a simple program Create a simple program Predict the outcome of a simple program Debug a simple program Recording algorithms (instructions)	**Information technology** Logging in Typing Keyboard skills Searching on/using the WWW and understanding if information is rea, or imaginary	**Consolidation project for Digital Literacy** Possible project ideas: Literacy- create a story using Purplemash 2Publish/2Create a story to combine sound, image and video. Science- create branching databases linked to topic e.g.

	Can recognise bullying behaviour Explain how we can stay safe online in different situations and get help if we need it.		Discuss and plan simple algorithm		Research Tim Berners Lee;how did he develop technology? Understand how computers communicate with each other using the internet and local networks.	living things and their habitat using Purplemash 2Question.
Year 3 Hummingbirds	**Digital citizenship- Online safety** Talk about digital footprint and what it means Recognise that online identities can be different to real world identities Understand the concepts of trust, likes and feelings online Know that people can overshare information that should be kept private. Recognise the impact of people being unkind online Develop a healthy balance between online and real life activity .	**Digital literacy** Logging in Typing Keyboard skills Develop word processing skills Creative multimedia- sound, pictures and film Simple graphs and charts Branching databases	**Computer science** **Focus- Sequence- The order that a set of instructions are carried out** Consolidation of algorithms and program To know the difference between an algorithm and a program Plan an algorithm and then create the program Predict the outcome of a simple program Debug a simple program Record algorithms (instructions)	**Computer science** **Focus- Sequence- The order that a set of instructions are carried out** Introduction to sequence Plan a sequence Create a program using sequence and the implications of reordering the sequence Debug a sequence Transfer skills between different software	**Information technology** Logging in Typing skills Research Ada Lovelace and Charles Babbage, how did they develop technology? How do search engines help us to find information? Importance of strong passwords and how to share information safely Know how to save work to a specific location	**Consolidation project for Digital Literacy** Possible project ideas: Literacy- -Create a multimedia presentation/ebook, with a title page, incorporating images, sounds, and text -Create an animated story using 2Create a story to combine sound, image and video. Science - Create a branching database linked to your topic e.g plants
Year 4 Dragonflies	**Digital citizenship- Online safety** Discuss Digital footprint and online vs real life identity Respect others while online and be aware of how online behaviour and content can impact on others Know that anyone can search online profiles for information Focus on Online bullying and how it may affect others Discus positives and negatives to using technology	**Digital literacy** Typing Continue to develop word processing skills Introduction to spreadsheets and graphing Representing data Animation	**Computer science** **Focus: Repeat / Loop - Parts of the program that are to be repeated** Consolidation of algorithms, program and sequences To know the different between an algorithm and a program Plan an algorithm and then create the sequence Predict the outcome of a sequence Debug a sequence Transfer skills between different software	**Computer science** **Focus: Repeat / Loop - Parts of the program that are to be repeated** Introduction to repeat / loop Plan a program using a repeat command Create a program using a repeat command Predict the outcome of repeat and the implications of reordering the repeat Debug coding when the outcome is not as expected Transfer skills between different software	**Information technology** Logging in Typing skills Research Hedy Lemarr & Radia Perlman; how did they develop technology? Search engines, safe searching and copyright Find, save and import images and information from the internet How searching works and how to evaluate a website - 5 W's	**Consolidation project for Digital Literacy** Possible Project ideas: Literacy - animation linked to pioneer Science -animation linked to living things and habitats History - animation linked to History topic
Year 5 Owls	**Digital citizenship- Online safety** Make responsible choices when sharing online and understand how this could be used be others Know when and how to get help Differentiate between types of bullying	**Digital literacy** Continue to develop word processing skills Introduction to databases and graphing Representing data Review, edit and discuss why changes have been made to work Creating work appropriate to audience Computer Aided Design (CAD)	**Computer science** **Focus: Selection / Conditional - using an 'if' statement in a computer program** Consolidation of algorithms, program, sequences and repeat To know the different between an algorithm and a program Plan a program using a repeat command	**Computer science** **Focus: Selection / Conditional - using an 'if' statement in a computer program** Plan a program for a quiz using selection Create a program for a quiz using selection To develop an awareness of abstraction when programming	**Information technology** Research Grace Hopper, Bill Gates & Steve Wozniak; how did they develop technology Search engines, safe searching and copyright Find, save and import images and information from the internet	**Consolidation project for Digital Literacy** Possible Project ideas: DT - create a new vehicle using CAD design Science - create an eco house using CAD design Literacy/History- Create a diorama scene with 3D figures using CAD

	Promote health and well-being with regards to using technology	Website evaluation	Create a program using a repeat command Predict the outcome of repeat and the implications of reordering the repeat Debug code when the outcome is not as expected Transfer skills between different software	Predict the outcome of the program and the implications of reordering the code Debug code when the outcome is not as expected Transfer skills between different software	How searching works and how to evaluate a website - 5 W's Reinforce the basics of using technology in our everyday lives. What the internal parts of a computer are and how they work	
Year 6 Sharks	**Digital citizenship- Online safety** Make responsible choices when sharing online Know when and how to get help Critically evaluate and reject inappropriate representations online Be kind and respect others online Protect digital personality Know how to capture evidence of online bullying Common systems that regulate age-related content Promote health and well-being with regards to using technology	**Digital literacy** Be independent when choosing appropriate software to create content Creating work appropriate to audience Use video editing software	**Computer science** **Focus: Variable - part of a program that can change** Consolidation of algorithms, program, sequences, repeat and selection/conditional To know the different between an algorithm and a program To plan and program using a repeat To plan and program a quiz using selection Predict the outcome of the program and the implications of reordering the code Debug code when the outcome is not as expected To have an awareness of abstraction when programming Transfer skills between different software	**Computer science** **Focus: Variable - part of a program that can change** Introduction to 'Variable' Plan a program for a quiz using a variable Create a program for a quiz using variable To have an awareness of abstraction when programming Predict the outcome of the program and the implications of reordering the code Debug code when the outcome is not as expected To plan and program a game which includes repeat, selection/conditional and a variable for a younger audience Transfer skills between different software	**Information technology** Research: Alan Turing, how did he develop technology? Elon Musk - how he is developing technology? How to evaluate a website - 5 W's Understand copyright and how to cite references Maintaining privacy and updating app permissions What will technology look like in the future	**Consolidation project for Digital Literacy** Possible Project ideas: Literacy -create a short film about end of Primary school Science-Time elapse video about decomposition Computer Science- Game creation including writing instructions and marketing materials