Curriculum Area: Science and Technology
Early Years -KS 4 Programme of Study

Enquiry, exploration and investigation are very much at the heart of this curriculum area. The methods and approaches used, at all levels should encourage pupils to discover and problem-solve themselves and draw on their knowledge to come to conclusions. For this reason, 'Scientific Enquiry' and 'Working Scientifically' should lie at the heart of any science teaching. In technology, pupils should be encouraged to learn through 'trial and error' and applying existing skills and knowledge to new situations. Framing learning through questions and projects helps ensure this focus is maintained.

Early Years

Topic	People and Communities	The World	Technology
Let's Go!	Multi- cultural events and festivals People who help us British Values The world around me-Traffic and different environments- Towns, building sites	Electricity Forces and magnets	Bee bots- Pressing buttons and tracking movements Exploring mechanical toys
Once upon a time	Multi- cultural events and festivals British Values Feelings and emotions Celebrations	Everyday materials Uses of everyday materials	Choose and tell stories- Touch screen and switch based activities
What a beast!	Multi- cultural events and festivals British Values Role play vets	Animals and Habitats	Switch toys- Activating buttons and switches and responding to sounds, actions and movement**.**
Once upon a Rhyme!	Multi- cultural events and festivals British Values The world around me- Forest, wood, beach, farm etc	Sound Animals including Humans- Body movements	Creating music and sound using ICT Responding to sound effects Turning and tacking sounds
Crunch, Crunch! Slurp, slurp!	Multi- cultural events and festivals British Values People in the community-Role play of activities such as shopping and gardening People who help us- Dentist, Doctor, Paramedic	Seasonal change Plants	Using technology in cooking based activities- Pressing buttons and switches- Observing effects
Oh I do like to be beside the Seaside!	Multi- cultural events and festivals British Values Safety near the sea- Lifeguard Staying safe- sun cream, floats, sunglasses Rubbish and recycling	Materials and their properties Rocks	Seaside pictures- choose and tell Drawing packages Age appropriate computer games
All about me!	Multi- cultural events and festivals British Values Family and Friends Babies and how to care for them	Humans Evolution and inheritance Life process and living things	Technology for self-care- Hair dryer, Electric toothbrush, foot spa
Over the Rainbow	Multi- cultural events and festivals British Values Celebrations- Birthdays, wedding, christenings etc	Light and Colour Earth and space	Mark making on the computer and Ipads Tracking light Observing colour change Different types of light- finger

				lights and torches
Come outside	Multi- cultural events and festivals British Values People who help us- Police, fire, etc	Seasonal Change Plants Living things and their habitat	Camera and video technology Technology in the community- Pressing buttons to cross the road, traffic lights, switch activated doors, self-serve tills in shops.

Primary- 6 Year Rolling Programme

Topic	Science	Computing Technology	E-Safety	Design Technology
A Long, Long Time Ago…	L – *The Natural World (Bgy)* Life Processes & Living Things, Scientific Enquiry, Working Scientifically U – *The Natural World (Bgy)* Evolution & Inheritance, Working Scientifically L – *Materials (Chm) –* Materials & their Properties, Everyday Materials & Uses of Everyday Materials, Scientific Enquiry, Working Scientifically U – *Materials (Chm) – Properties & Changes* Everyday Materials & their Uses, Properties & Changes of Materials, Rocks, Working Scientifically	***Digital Literacy*** L (PF, SF) – Operating household appliances using for laundering of clothes – e.g. toy washing machine programmed latch-timers, controlling digitally generated immersive environments on theme – dinosaurs/Ancient Egypt L (PF) - Use technology to engage in social turn-taking and communication games ***Digital Literacy and Information Technology*** L (SF) & U - Using the internet to locate & explore information a variety of sources of information – audio, images, recordings etc. of historical events, primary and secondary sources U (L where poss) - 'fact files' and information leaflets, select appropriate software / programme to present findings, consider audience, organise, retrieve, store information in logical ways U (& L where possible) - Explore the globe & location through Google maps & Google Earth (Egypt, river Nile)	(Ancient Egypt & Dinosaurs) L & U *Online relationships -* being respectful of others, especially those who are different from us & being kind online	
Mini Movers!	L – *The Natural World (Bgy)-* Life Processes & Living Things,	***Digital Literacy*** L (PF, SF) – Switch skills & toys, touch screen skills & other	L & U - *Online Relationships –* Inappropriate requests for online contact & sharing – what this looks like and how	

	Animals Including Humans, Scientific Enquiry, Working Scientifically U –*The Natural World (Bgy) -* Animals including Humans, Living Things & Their Habitats, Working Scientifically L – *Pushes and Pulls – (Phys)* – Physical Processes, Scientific Enquiry, Working Scientifically U - *Pushes and Pulls (Phys)* – Forces and Magnets, Working Scientifically	PAM to develop cause and effect - stop and go L (PF & SF) - switch games – sounds of nature L & U – Use switch skills and interface features of online games & apps on theme of mini-beasts ***Digital Literacy and Information Technology*** U (& L where possible) – Creating simple graphs by using interface features of software programmes, build on data collection methods ***Computer Science*** L & U – unplugged games & activities outdoors, especially practising directions, following and giving instructions	to deal with it, what healthy relationships look like and their right to say no & challenge – boundaries, seek support when needed U (L where poss)– *Health, Well-being and Life-style* - limiting screen-time time for well-being & strategies to help, following rules in use of screen-time	
In a Deep Dark Wood …	L – *The Natural World (Bgy) -* Life Processes and Living Things, Living things and their Habitats, Plants, Scientific Enquiry, Working Scientifically *The Natural World (Bgy)* – Plants, Living Things and Their Habitats, Working Scientifically L – *Energy (Phys)* – Physical Processes, (especially light), Scientific	***Digital Literacy*** L & U – Use switch skills and interface features of online games & apps to explore & communicate feelings and physical illness - symptoms & what to do U (& L where possible) – Creating simple graphs by using interface features of software programmes, build on data collection methods U (& L where possible) – Use interface features of Google maps to explore landscapes virtually, especially woodland areas	L & U *Online relationships -* build or focus on offline relationships – being kind, expressing how friendships & relationships make us feel - (explore range of emotions), seeking help, telling, reporting	Properties of wood & other natural materials and their construction (Joining this resistant material)

	Enquiry U – *Energy (Phys)* – Light, Working Scientifically			
What a Disaster!	L - Scientific Enquiry, Working Scientifically *The Universe (Phys)* - Seasonal Changes *Pushes and Pulls – (Phys)* – Physical Processes (especially forces) *Energy (Phys)* – Physical Processes (especially electricty) U - Working Scientifically*, The Universe* (Phys) - Earth and Space, Seasonal Changes *Pushes and Pulls (Phys)* – Forces *Energy (Phys)* – Electricity L – *Materials (Chm)* – Materials & their properties, Everyday Materials, Scientific Enquiry, Working Scientifically U – *Materials (Chm) Properties & Changes* Properties & Changes of Materials, Working Scientifically	***Digital Literacy*** L (PF, SF) – Use switch skills and interface features of games & apps to explore cause & effect - disasters & mishaps, activating emergency sirens ***Digital Literacy and Information Technology*** L (SF) & U - Using the internet to locate & explore information a variety of sources of information – audio, images, recordings etc. of historical events – Black Death & Great Fire of London, news of disasters & information about charities that support disasters U & L – Use PAM & technology for recording, & presenting news bulletins/radio broadcasts – apply simple editing features where possible (U) U (& L where possible) - Explore the globe & location through Google maps & Google Earth (sites of disasters) U & L – Using technology to contact emergency services & explore how emergency services make use of technology through role play U & L – Work collaboratively (e.g. to create a news bulletin or radio broadcast) U & L – Explore places we can access news electronically, how to activate radios, TVs, internet (U how to navigate to find children's news sites)	L & U *Online relationships -* caring friendships – being supportive & kind towards others online & off-line - differentiating between friends & strangers – on-line & off-line L & U – ***Managing online information*** reliable searches, voice activation & search engines, sitemaps & ranking – good & safe sources of information (sites) for children - (when researching e.g. Black Death & Great Fire of London or news about disasters)	

		Computer Science n/a		
Mmmm Chocolate!	L – *Materials (Chm)* – Materials & their Properties, Everyday Materials Scientific Enquiry, Working Scientifically U – *Materials (Chm) Properties & Changes* Properties & Changes of Materials, States of Matter, Working Scientifically,	*Digital Literacy* L (PF, SF) – Developing switch skills, touch screen skills & other PAM to express likes and dislikes L (PF) - Operating cooking appliances, e.g. chocolate fountain, microwave with programmed latch-timers, controlling digitally generated events on chocolate theme *Digital Literacy and Information Technology* U (& L where possible) – Creating simple graphs by using interface features of software programmes, build on data collection methods U (& L where possible) - Explore the globe & location through Google maps & Google Earth (explore trade routes) L (SF) & U - Using the internet to locate & explore information a variety of sources of information, e.g. the Aztecs *Computer Science* n/a	L & U – *Managing online information* - Online & off-line – Persuasion techniques - how the internet is used to buy and sell things - distinguishing between beliefs, opinions and facts L & U – *Managing online information* - reliable searches, sitemaps & rankings voice-activation, – good & safe sources of information (sites) for children - (when researching e.g. Aztecs)	
Green Living	L – *The Natural World (Bgy)* – Life Processes & Living Things, Animals including Humans, Living Things and Their Habitats, Scientific Enquiry, Working Scientifically U – *The Natural World (Bgy)* – Animals including	*Digital Literacy* L (PF) - Use technology to control & recreate outdoor immersive environments - e.g. wind machine, heat lamp L (PF & SF) - signage – mark-making apps L (PF & SF) - switch games – signage in the community, sounds of nature *Digital Literacy* U (L where poss.) Art apps & digital paint programmes to	U (L where poss)– *Health, Well-being and Life-style* - limiting screen-time time for well-being & strategies to help, following rules in use of screen-time, wellness apps & fitness trackers & how they can help	

	Humans, Living Things and Their Habitats, Working Scientifically L – *Materials (Chm) –* Materials & their Properties, Everyday Materials, Uses of Everyday Materials, Scientific Enquiry, Working Scientifically U – *Materials (Chm) –*Everyday Materials, Uses of Everyday Materials, Working Scientifically	create own signs in the community U – Creating questionnaires – e.g. Especially Microsoft Forms, (Google Forms), writing reports – Clicker or Word, ***Digital Literacy & Information Technology*** U (L where poss) Wellness apps & fitness trackers - using & evaluating impact in simple ways U & L – Research open outdoor spaces near me – especially parks ***Computer Science*** L & U – unplugged games & activities outdoors		
I went to the Shop	L – *The Natural World (Bgy)* – Life & Living Processes, Plants, Scientific enquiry, Working Scientifically U – *The Natural World (Bgy)* – Plants, Working Scientifically L – *Materials (Chm)* – Properties of Everyday Materials, Uses of Materials U – *Materials (Chm) – Properties & Changes* - Uses of Everyday Materials, States of Matter, Properties & Changes of Materials, Working Scientifically	***Digital Literacy*** L (PF) - Use technology to communicate preferences & make decisions L (PF) - Responding to and controlling technology in immersive environments, especially colour to control & immersive environments - e.g. wind machine, heat lamp **Digital Literacy & Information Technology** U (L where poss) - online shopping – how it works in simple ways, e.g. price comparison, simple searches, making choices ***Computer Science*** U (& L where poss) – writing, testing & debugging simple algorithms – e.g. Beebots on town map, sprites in block-based programming apps – visiting different shops, unplugged games & activities –	L & U - ***Online Relationships*** – explore courtesy & respect, consideration and kindness in online and off-line relationships, with less familiar people, the role of trusted adults to help me communicate safely and appropriately – online and off-line, trust & what to do if feel unsafe U – Can link to cultural diversity, acceptance of others who are unfamiliar or different to us U (& L where poss) – ***Managing online information*** - Online & off-line – Persuasion techniques - how the internet is used to buy and sell things - distinguishing between beliefs, opinions and facts, in-app purchases, online market-places - benefits & disadvantages, rankings	

		giving and following directional language		
A Carnival of Colour	L – *Energy (Phys)* Physical Processes (especially sound & light) *The Universe (Phys) – Physical Processes* Earth and Space, Seasonal Changes U – *Energy (Phys)* - Sound & Light, *The Universe* (Phys) - Earth and Space, Seasonal Changes	**Digital Literacy** L (PF) - Use technology to communicate and share experience with others L (PF) - Responding to and controlling technology in immersive environments, especially colour, sounds – especially drumming & multicultural musical content **Digital Literacy** L & U - Musical apps, especially drumming element & multi-cultural influences & sounds, working collaboratively with a shared purpose for creative expression, saving and retrieving my digital content **Computer Science** U – Using apps to create simple 'layered' musical rhythms - explore terms, repetition, input & output, loops, consider audience **Digital Literacy & Information Technology** U (L where poss) - 'what's on' guides for leisure pursuits, e.g. festivals & multi-cultural events locally	L & U - *Online Relationships* – internet as a 'public' place - staying safe in public spaces, risks and strategies, the role of trusted adults to help me communicate safely and appropriately L & U – *Health, Well-being and Life-style* – Using online communities to connect with others L & U – *Self-image & identify and online reputation* – using the internet (child-friendly social sites & safe chat rooms) for positive self-promotion, self-expression, digital footprint L & U - *Online Relationships* – the internet for communicating with people – we know and don't know, like & trust – knowing the difference, including culturally diverse communities beyond my group L & U - *Online Relationships* – courtesy & respect, consideration and kindness in online and off-line relationships, – online and off-line, trust & what to do if feel unsafe, cultural diversity, acceptance of others who are unfamiliar or different to us U (L where poss) – *Copyright and ownership* – identifying their work as their own, knowing basic principles of fair use, seeking permission to use someone else's work, acknowledging the contributions of others, illegal downloading	
Water, Water Everywhere	L – *Push & Pull (Phys)* Physical Processes (especially	**Digital Literacy** L (PF) - Responding to and controlling technology in –	L & U – *Health, Well-Being and Life-Style and Privacy and Security* - Identifying rules that keep us safe – know & explain	

	forces), Scientific enquiry, Working scientifically, *The Universe (Phys)* – Seasonal Changes U – *Push & Pull (Phys)* - Forces *The Universe (Phys)* - Seasonal Changes, Working Scientifically L – *The Natural Word (Bgy)* – Life Processes & Living Things, Working Scientifically, Scientific Enquiry, Living Things & Their Habitats U – *The Natural World (Bgy)* – Living Things & Their Habitats, Working Scientifically L – *Materials (Chm)* - Materials & their Properties, Scientific Enquiry, Working Scientifically U – *Materials (Chm)* – Rocks, Working Scientifically	'glow in the dark & black light 'under the sea' immersive environments & storms at sea – digitally generated sources of noise & movement, wind L (PF) - Following rules & instructions ***Digital Literacy & Information Technology*** U (& L where possible) - Explore the globe & location of oceans through Google maps & Google Earth L (SF) & U - Using the internet to locate & explore information a variety of sources of information, navigating online content – site-maps, rankings e.g. Histories & biographies of famous sea-farers L & U – Collaborative working – researching together, (lives of famous sea-farers, information about the ocean) Creating together using art apps & software - safety posters, **select appropriate software / programme to present findings, consider audience**	their importance, knowing and applying strategies to keep safe, using trusted adults to support me U (and L where poss) *Self-image and identity & online reputation* – L & U – link to biographies of famous people - what would our biographies be, positive self-promotion, challenging stereotypes, making positive contributions to our own & others self-identity L & U - *Online relationships* – collaborative working, working as a team & valuing others opinions & ideas,	
Lights! Camera! Action!	L – *Energy (Phys)* – Physical Processes (especially light, sound), Scientific Enquiry Working Scientifically U – *Energy (Phys)* – Light, Sound, Electricity,	*Digital Literacy & Information Technology* L (PF) - Using technology to communicate, explore & control preferences – visual & audio content, share experiences with others L & U - Collaborative and creative working – Combining digital content to for creative	L & U - *Online relationships* – collaborative working, working as a team & valuing others opinions & ideas, L & U - *Health, Well-Being and Life-style*– respecting rules & guidelines around access digital content – film and PEGI ratings U (L where poss) – *Copyright*	

	Working Scientifically	purposes – visual and audio content, using video content to create simple films, save & retrieve digital content – organising content, consider audience **Digital Literacy & Information Technology** U (L where poss) - using technology to find out about (film reviews & trailers) navigating online content & book cinema experiences	*and ownership* – identifying their work as their own, knowing basic principles of fair use, intellectual property, seeking permission to use someone else's work, acknowledging the contributions of others, their right to say 'no' and challenge U (& L where poss) – *Managing online information* - Online & off-line – Persuasion techniques - how the internet is used to buy and sell things - distinguishing between beliefs, opinions and facts online market-places - benefits & disadvantages, rankings *Online reputation –* U – using the internet for positive self-promotion – platforms people use to share & promote their work *Privacy and Security* L & U – personal information, what is it, how and why might others want it – cookies, targeted info, keeping money safe -	
Europe, Here we Come	L – *The Natural World (Bgy)* – Life Processes & Living Things, Animals Including Humans, Living Things & Their Habitats, Scientific Enquiry, Working Scientifically U - *The Natural World (Bgy)* – Animals Including Humans, Living Things & Their Habitats, Evolution & Inheritance	*Digital Literacy and Information Technology* L (PF) - Using technology to explore & build sense of self, image banks, family, (e.g. Slideshow Maker), likes, dislikes & favourites through games & apps L (PF) - Using technology to communicate with others around me in shared technological experiencees – e.g. Skoob, kaoscillator or similar *Digital Literacy and Information Technology* U (& L where possible) - Explore the globe & location of	*Online relationships and online bullying* L & U – What healthy relationships look like – feelings, identify how people can be unkind, different types of bullying, relationships shouldn't be exclusive, controlling or bullying, strategies & resilience to tackle Acknowledging, respecting difference, compromise & negotiation in healthy relationships, forgiveness and reconciliation if mistakes have been made *Privacy and Security* L & U – personal information, what is it, how and why might others want it – what to share	

		oceans through Google maps & Google Earth L (SF) & U - Using the internet to locate & explore information a variety of sources of information, navigating online content – site-maps, differentiating between primary and secondary content e.g. Historical information about the Romans L (SF) & U – Manipulate, combine, save and retrieve digital content to create travel diaries & Roman job descriptions – select appropriate software / programme to present findings, consider audience	and not to share and strategies to help me keep my personal information safe - trusted adults to help me, strong passwords, identity theft and fake identities ***Online relationships*** L & U – online identities - people are not always who they say they are	
Watch Me Go!	L – *Pushes & Pulls (Phys)* – Physical Processes (especially forces), Forces & Magnets, Working Scientifically, Scientific Enquiry U – *Pushes & Pulls (Phys)* – Forces, Working Scientifically L – *Materials (Chm)* - Materials & their Properties, Scientific Enquiry, Working Scientifically U – *Materials – Properties & Changes (Chm)* – Properties & Changes of Materials, States of Matter, Working Scientifically	***Digital Literacy*** L (PF, SF) – Switch skills & toys, touch screen skills & other PAM to develop cause and effect - stop and go L (PF) - Controlling digitally generated on-screen events and immersive environments – e.g. a bus or car journey *Digital Literacy and Information Technology* U (& L where possible) – Creating simple graphs by using interface features of software programmes, build on data collection methods - U – Gathering data, e.g. bus routes, home towns, holiday destinations – e.g. Especially Microsoft Forms, (Google Forms), present on Excel or child–friendly programmes ***Digital Literacy*** U (L where poss.) Art apps & digital paint programmes to create own signs in the community, consider audience	U (L where poss)– ***Health, Well-being and Life-style*** - limiting screen-time time for well-being & strategies to help, following rules in use of screen-time, wellness apps & fitness trackers & how they can help L & U - ***Online Relationships*** – explore courtesy & respect, consideration and kindness in online and off-line relationships, with less familiar people, the role of trusted adults to help me communicate safely and appropriately – online and off-line, trust & what to do if feel unsafe U – Can link to cultural diversity, acceptance of others who are unfamiliar or different to us	

		Information Technology U (L where poss) - L (SF) & U - Using the internet to locate specific information - use sitemaps, search engines, rankings – specific information – bus routes and time-tables ***Computer Science*** U (& L where poss) – writing, testing & debugging simple algorithms – e.g. Beebots and programmable vehicles, around maps, sprites in block-based programming apps – visiting different 'countries' unplugged games & activities – giving and following directional language		
Down on the Farm	L – *The Natural World (Bgy)* – Life Processes & Living Things, Animals including Humans, Plants, Scientific Enquiry, Working Scientifically U – *The Natural World (Bgy)* – Animals including Humans, Plants, Working Scientifically L – *The Universe – (Phys)* – Seasonal Changes, Scientific Enquiry, Working Scientifically U – *The Universe – (Phys)* – Seasonal Changes, Working Scientifically L – *Materials (Chm)* - Materials &	***Digital Literacy*** L (PF) - Responding to and controlling technology in immersive environments – farms & different weather types - digitally generated animal noises & movement, wind, movement, heat lamp etc. L (PF) - Following rules & instructions 'of the workplace' Digital Literacy & Information Technology L & U – Using technology for narrative 'oral' story-telling, select appropriate software / programme to present findings, consider audience, consider technologies used to share and promote creative projects *Digital Literacy and Information Technology* U (& L where possible) – Creating simple graphs by using interface features of software programmes, build on data collection methods - U – Gathering data, e.g. Routines, the working day, working patterns, seasonal	*Online relationships* L & U – What healthy relationships look like – feelings in the workplace, Acknowledging, respecting difference, compromise & negotiation in healthy relationships *Online identity* L & U – Using the internet for self-promotion, and creating 'digital personalities', making positive contributions to our own & others self-identity U (L where poss) – ***Copyright and ownership*** – identifying their work as their own, knowing basic principles of fair use, seeking permission to use someone else's work, acknowledging the contributions of others, illegal downloading	

	Their Properties, Scientific Enquiry, Working Scientifically U – *Materials – Properties & Changes (Chm)* – Rocks, Working Scientifically	variations, landuse patterns & changes over time – e.g. Especially Microsoft Forms, (Google Forms), Excel or specialist data programmes		
Everywhere Around Me!	L - *The Natural World (Bgy)* – Living Things & Their Processes, Animals including Humans, Living Things & Their Habitats, Scientific Enquiry, Working Scientifically U – *The Natural World (Bgy)* – Living Things & Their Habitats, Working Scientifically L – *The Universe (Phys)* –Physical Processes (especially night & day), Scientific Enquiry, Working Scientifically U – *The Universe (Phys)* – Earth and Space, Working Scientifically	***Digital Literacy*** L (PF) - Using technology to explore story-telling, 'writing' and 'telling' their stories L (PF) - Using technology to control story-telling – changing endings, e.g. Choose 'n' Tell L (PF) - Responding to and controlling technology in immersive environments – deserts, exploring highly contrasting environments **Digital Literacy & Information Technology** L & U – Using technology for narrative 'oral' story-telling, select appropriate software / programme to present findings, consider audience, consider technologies used to share and promote creative projects L (SF) & U - Using the internet to locate & explore information a variety of sources of information, navigating online content – site-maps, differentiating between primary and secondary content e.g. Deserts, Middle East, faiths & culture	***Online relationships and online bullying*** L & U – What healthy relationships look like – feelings, identify how people can be unkind, different types of bullying, relationships shouldn't be exclusive, controlling or bullying, strategies & resilience to tackle Acknowledging, respecting difference, compromise & negotiation in healthy relationships, forgiveness and reconciliation if mistakes have been made ***Online relationships and online reputations*** U & (L where poss) Respect for others - especially cultural diversity, being sensitive to other cultures' beliefs and practices but identify what is legal and acceptable – use trusted adults to support me with this *Online identity* L & U – Using the internet for self-promotion, and creating 'digital personalities', making positive contributions to our own & others self-identity U (L where poss) – ***Copyright and ownership*** – identifying their work as their own, knowing basic principles of fair use, seeking permission to use someone else's work, acknowledging the contributions of others, illegal downloading	

Food, Glorious Food!	L – *The Natural World (Bgy)* – Life Processes & Living Things, Plants, Animals including Humans, Scientific Enquiry, Working Scientifically, U - *The Natural World (Bgy)* – Plants, Animals including Humans, Working Scientifically

L – *Materials - (Chm) Materials & their Properties, Scientific Enquiry, Working Scientifically* U – *Materials – Properties & Changes (Chm)* – Properties & Changes of Materials, States of Matter, Working Scientifically

L – *Energy (Phys)* – Physical Processes, (especially electricity) *Scientific Enquiry, Working Scientifically* U – *Energy (Phys)* – Electricity, | *Digital Literacy*

L (PF, SF) – Developing switch skills, touch screen skills & other PAM to express likes and dislikes

L (PF) - Operating cooking appliances, e.g. Blenders, microwaves, whisks, programmed latch-timers, controlling digitally generated games & apps on food theme

L & U – Collaborative working – researching together, recipes from other cultures & building understandings of other cultures through this Creating together using art apps & software - recipes, menus, place settings etc. Using designs & fonts appropriate for the country of origin for a shared feast - select appropriate software / programme to present findings, consider audience in design

Digital Literacy & Information Technology
U (L where poss) - online shopping – how it works in simple ways, e.g. price comparison, simple searches, making choices

Computer Science
U (& L where poss) – writing, testing & debugging simple algorithms - sets of instructions to create recipes from around the world, precise & unambiguous instructions – e.g. unplugged games & activities & software apps & | *Self-image Identity and Online identity*
L & U – Using the internet (child-friendly social sites & safe chat rooms) for self-promotion, and creating 'digital personalities', representing self online, making positive contributions to our own & others self-identity – sharing favourite foods & recipes & raising awareness of food aid charities & humanitarian aid

L & U - *Online relationships* – collaborative working, working as a team & valuing others opinions & ideas,

L & U – *Managing online information* - Online & off-line – Persuasion techniques - how the internet uses cookies to target us and our choices, distinguishing between beliefs, opinions and facts, using trusted sites, reliable searches & how to do this, e.g. voice activation

U (& L where poss) – *Managing online information* - Online & off-line – Persuasion techniques - how the internet is used to buy and sell things - distinguishing between beliefs, opinions and facts, in-app purchases, online market-places - benefits & disadvantages, rankings | |

	Working Scientifically	games		
This is Me!	L - *The Natural World (Bgy)* - Life Processes & Living Things, Animals including Humans, Scientific Enquiry, Working Scientifically U - *The Natural World (Bgy)* -, Animals including Humans, Working Scientifically *NB The science focus for this topic will vary depending on the contribution of the child/children that are chosen*	***Digital Literacy*** L (PF, SF) – Developing switch skills, touch screen skills & other PAM to express likes and dislikes L (PF) - Using technology to explore & build sense of self, image banks, family, (e.g. Slideshow Maker), likes, dislikes & favourites through games & apps L (PF) - Switch-based & touchscreen apps to build & manipulate pictures of themselves & peers ***Digital Literacy and Information Technology*** U (& L where possible) – Creating simple graphs by using interface features of software programmes, build on data collection methods - U – e.g. Especially Microsoft Forms, (Google Forms), present on Excel or child– friendly programmes –explore diversity of our characteristics, interests, qualities, dreams etc. ***Digital Literacy*** L & U - Art apps & digital paint programmes to create portraits of themselves	***Privacy and Security*** L & U – personal information, what is it, how and why might others want it – what to share and not to share and strategies to help me keep my personal information safe - trusted adults to help me, strong passwords, identity theft and fake identities L & U - *Online Relationships* – Inappropriate requests for online contact & sharing – what this looks like and how to deal with it, what healthy relationships look like and their right to say no & challenge – boundaries, seek support when needed U (and L where poss) *Self-image and identity & online reputation* – L & U – link to biographies of famous people - what would our biographies be, positive self-promotion, challenging stereotypes, making positive contributions to our own & others self-identity, challenging stereotypes	
Unearthing the Anglo-Saxons	L – *The Natural World (Bgy)* Life Process & Living Things, Plants, Scientific Enquiry, Working Scientifically U – *The Natural World (Bgy)* Plants, Working	*Digital Literacy* L (PF) - Using AAC to communicate with 'members of the public' - meeting & greeting L (PF) - Using technology to explore Anglo-Saxon culture & demonstrate in museum e.g. Skoob, kaoscillator or similar,	L & U – ***Managing online information*** reliable searches, voice activation & search engines, sitemaps & ranking – good & safe sources of information (sites for children (researching Anglo-Saxons) L & U - *Online relationships* – collaborative working, working as a team & valuing others	

	Scientifically L – *Materials (Chm)* - Materials & their Properties, Materials, Uses of Materials, Scientific Enquiry, Working Scientifically U – *Materials (Chm)* – Materials, Uses of Materials, Working Scientifically L – *Energy (Phys)* – Physical Processes (especially sound), Scientific Enquiry, Working Scientifically U – *Energy (Phys)* – Sound, Working Scientifically	uses switches & apps to share stories & riddles – for interaction with others **Digital Literacy & Information Technology** L (SF) & U - Using the internet to locate & explore information a variety of sources of information, navigating online content – site-maps, storing, retrieving, organising information, differentiating between primary and secondary sources - Anglo-Saxons L & U – Collaborative working – to create a museum - Creating together using art apps & software - information signs labels etc. s**elect appropriate software / programme to present findings, consider audience in design** L & U – Use technology to reflect the artistic habits of the Anglo-Saxons for 'oral' story-telling & music (digital versions of Saxon instruments, e.g. drums& lyres) - working collaboratively with a shared purpose for creative expression, saving and retrieving my digital content **select appropriate software / programme to present findings, consider audience, consider technologies used to share and promote creative projects**	opinions & ideas U (and L where poss) *Online reputation* - using platforms to promote events – invite parents & families to museum	
Oh What a Wonderful World!	L – *The Natural World (Bgy)* - Life Process & Living Things, Animals including Humans, Plants, Living Things & their Habitats, Scientific	***Digital Literacy*** L (PF) - Responding to and controlling technology in immersive environments – different weather types - digitally generated animal noises & movement, wind, movement, heat lamp etc.	U (L where poss)– ***Health, Well-being and Life-style*** - limiting screen-time time for well-being & strategies to help, following rules in use of screen-time, wellness apps & fitness trackers & how they can help L & U – O***nline reputation* –**	

	Science strand	Computing Technology	E-Safety	Design Technology
	Enquiry, Working Scientifically U – *The Natural World (Bgy)* Animals including Humans, Plants, Living Things & their Habitats, Working Scientifically L – *The Universe (Phys)* – Physical Processes, Scientific Enquiry, Working Scientifically U – *The Universe (Phys)* - Earth & Space, Working Scientifically	L & U - Collaborative and creative working – Combining digital content to for creative purposes – visual and audio content, using video content to create content for the school public 'face', website, Facebook & save & retrieve digital content – organising content, consider audience **Digital Literacy & Information Technology** U (L where poss) Wellness apps & fitness trackers - using & evaluating impact in simple ways U & L – Research open outdoor spaces near me – especially parks **Computer Science** L & U – unplugged games & activities outdoors	using school website and social media sites to promote positivity & build positive digital footprint for school L & U - *Online Relationships –* the internet for communicating with people – we know and don't know, like & trust – knowing the difference, including culturally diverse communities beyond my group L & U - *Online Relationships –* courtesy & respect, consideration and kindness in online and off-line relationships, – online and off-line, trust & what to do if feel unsafe, cultural diversity, acceptance of others who are unfamiliar or different to us L & U – *Health, Well-being and Life-style –* Using online communities to connect with others	

Secondary- 5 Year Rolling Programme

Topic	Science strand	Computing Technology	E-Safety	Design Technology
Robots	L –*Pushes and Pulls (Phys)* Physical Processes, Forces and Magnets, *Energy (Phys)* – Physical Processes (especially electricity), Scientific Enquiry, Working Scientifically U – *Pushes and Pulls (Phys)* Forces and Magnets, Forces *Energy (Phys)* – Electricity,	***Information Technology & Digital Literacy*** L (PF, SF) & U – Physical computing – explore input & output devices, in household appliances & everyday equipment - sensors, motors etc. – L (SF) & U - link to robotics & DT projects L (PF, SF) & U – How technology has changed over the years (e.g. music & audio devices, including latest ways to listen to music – via apps, downloads & live streaming) L (PF, SF) & U - Explore the	L (SF) & U - Staying safe in a technological age - *general overview of core aspects of online safety:* ***self-image & identity, online relationships, online reputation, online bullying, managing online information, privacy & security, copyright & ownership*** L (PF, SF) & U - ***Health, Well-Bing & Lifestyle –*** Balancing online & off-line, establishing & following basic rules – e.g. switch on, switch off	L & U - Input & output devices - sensors, motors etc. Explore & install to their own robot DT projects

			times (U) self-regulation	
	Working Scientifically	role of the internet in our lives, everyday devices that use it & how

Computer Science

L (SF) & U - Computational thinking skills, problem-solving, unplugged & digital – games & activities

L (SF) & U – Block-based programming - write algorithms for a variety of creative programming projects in (U) Hopscotch & Scratch (L), Scratch Junior
L (SF) & U - Binary code – digital & unplugged games & activities

L (PF, SF) & U – Accessing technology in the community to carry out everyday tasks, e.g. vending machines, self-service checkouts, online ordering etc

Digital Literacy

U - Word processing (e.g. Publisher) – using templates to layout newspapers

L (PF, SF) & U – Using audio apps to create (U) & edit music

L (PF, SF) – Developing switch skills & touch screen skills & other PAM through Robot related games & software | | |
| World War 2 | L – ***The Natural World (Bgy)*** - Life Processes & Living Things, Plants, Scientific Enquiry, Working Scientifically
U – ***The Natural World (Bgy)*** - | ***Information Technology***

L (PF, SF) & U - Using the internet to locate & explore a variety of sources of information – audio, images, recordings, diaries etc.

Computer Science | L (SF)& U – ***Managing online information – accurate & reliable searches, not believe everything they see*** | |

	Plants, Working Scientifically L – *Energy (Phys)* – Physical Processes (especially light), Scientific Enquiry, Working Scientifically U –*Energy (Phys)* – Light, Working Scientifically	U - Link binary code to Morse code – unplugged games & activities *to explore how they work* ***Digital Literacy & Information Technology*** L (SF) & U – Budgeting when shopping – explore price comparison & ways to budget using online shopping, calculators, Smartshop apps & handsets ***Digital Literacy*** L (PF, SF) & U – Using audio apps to listen to, create (U) & edit music - WW2 soundscapes L (PF) - Combine basic skills, WW2 content & control immersive environments with WW2 theme L (PF, SF) – Developing switch skills & touch screen skills & other PAM through WW2 related games & software	L (SF) & U – ***Managing online information, privacy & security –*** *Exercising caution when considering or making online purchases – persuasion techniques & giving away personal details, especially financial ones* L (PF) - Awareness of self	
Asia	L - ***The Natural World (Bgy)*** - Life Processes & Living Things, Plants, Animals including Humans, Living Things and Their Habitats, Scientific Enquiry, Working Scientifically U- ***The Natural World (Bgy)*** - Plants, Animals including Humans, Living Things and Their	***Digital Literacy*** L (PF) - Combine basic skills, Asian content & control immersive environments with Asian theme L (PF, SF) – Developing switch skills & touch screen skills & other PAM through Asian related games & software L (SF) – Simple, supported online searches to find out about Asia, developing switch skills & touch screen skills through topic related games	L (SF) & U – ***Managing information online –*** reliable searches, critical evaluation of content L (PF) - Building social interaction skills, especially unfamiliar people L (SF) & U – ***Online relationships -*** E-courtesy – rules & guidelines, being kind online – online & off-line same rules apply,	Asian textiles – textile design and construction

	Habitats, Working Scientifically L – **The Universe (Phys)** - *Physical Processes, Seasonal Changes*, Scientific Enquiry, Working Scientifically U - **The Universe (Phys)** *Seasonal Changes*, Working Scientifically	& software U - Creating presentations – facts about Asia – using software alternatives to Powerpoint)– e.g. Google Slides, Sway, Keynote, Prezi L (PF, SF) & U - Electronic communications – participation in video conferencing, texting and group chats U – email, organising & initiating other forms of electronic communications with others	the law L (SF) & U – **Privacy and Security** - awareness of age restrictions on social media & sticking to these, over-share (and pressure to do so – including images - ties in with changing adolescent body), keeping online friends same as offline friends, (dangers of arranging offline and online communications with people you don't know) L (SF) & U - **Online reputation** - digital footprint & legal implications (more an issue with non-verbal communications - i.e. chats, texting and email) L (SF) & U - **Online bullying** – (within context of video conferencing, texting and group chats), strategies for dealing with this, the importance of seeking help from trusted adults	
Europe	L –**Energy (Phys)** Physical Processes, (especially light & sound), Scientific Enquiry, Working Scientifically U – **Energy (Phys)** Light, Sound - Working Scientifically	**Digital Literacy** L (PF, SF) – Developing switch skills & touch screen skills & other PAM through Europe related games & software L (SF) & U – Manipulating & combining digital content create posters, programmes for theatre productions -	L (SF) & U – **Managing information online –** reliable searches, critical evaluation of content, saving L (PF) - Building social interaction skills, especially unfamiliar people L (SF) U – **Copyright &**	

		word processing & publishing apps, e.g. Adobe Sparke L (SF) & U - Organising & retrieving digital content in personal files **Information Technology & Digital Literacy** L (PF, SF) & U - Work on digital projects collaboratively, turn-taking, suggesting ideas, (PF) - shared games - L (SF) & U - joint designing of posters & programmes (U) across devices - digital share	*ownership* – Their rights & responsibilities, the law crediting work of others, loyalty-free visual & audio L (SF) & U – *Online relationships, reputation & bullying* – Recognising and accepting that people that are different to us and may have different ideas and beliefs, being kind & positive & constructive feedback	
Chocolate	L – *Properties & Changes of material (Chm)* - Materials & their Properties, Uses of Materials, Scientific Enquiry, Working Scientifically U – *Materials (Chm)* – States of Matter, Properties and Changes of Material, Working Scientifically	*Information Technology* L (SF) & U – How the internet works, how data about them is gathered, stored & used in marketing, to target them (targeting online content cookies) *Information Technology & Digital Literacy* L (PF) Combine basic digital skills & choice-making L (PF, SF) – Developing switch skills & touch screen skills & other PAM through Chocolate related games & software L (PF, SF) & U - Work on digital projects collaboratively, turn-taking, suggesting ideas, (PF) - shared games - L (SF) & U - joint designing of advertising & packaging (U) across devices - digital share L (SF) & U – Market research & data analysis – use digital software & apps to gather	*L (SF) & U – Managing online information, privacy & security* - exercise caution & seek help if asked for financial or personal details, be cautious of offers & targeting advertising, how to decline using your data when downloading apps or signing up to accounts L (PF) - Expressing & communicating preferences L (PF) - Developing communication & social interaction skills L (SF) & U - *Healthy online relationships & bullying* – being kind, the right to say no, reporting & blocking unkind comments	Chocolate graphic design & packaging & advertising NETs and construction of 3D shapes for packaging.

		display their own market research, e.g. Forms in O365 or many other data collection apps		
Space	L – *The Universe (phys)* Earth & Space, Seasonal Changes Scientific Enquiry, Working Scientifically U – *The Universe (phys)* - Earth & Space, Seasonal Changes, Working Scientifically L – *Properties & changes of materials (Chm)* - Materials & their Properties, Scientific Enquiry, Working Scientifically U – *Properties & Changes of materials (Chm)* - Rocks, Working Scientifically	***Information Technology*** L & U – Technology & space – the role of satellites in internet (U) - How the internet works L (SF) & U – Using satellite photography to view world & planets ***Computer Science*** L (SF) & U - Computational thinking skills, problem-solving, unplugged & digital – games & activities L (SF) & U – Block-based programming - write algorithms for a variety of creative programming projects, link computer science to space travel, space industry, future jobs, (U) Hopscotch & Scratch (L), Scratch Junior L (SF) & U - Binary code – digital & unplugged games & activities ***Digital Literacy*** L (PF, SF) – Developing switch skills & touch screen skills & other PAM through Space related games & software L (PF) - Control elements in space-themed immersive sensory environments L (SF) & U – Using software to create E-Books, manipulating & combining digital content	*L (SF) & U – **Self-image & identity, Online reputation** - challenging stereotypes through technology – can link to women & BAME in space industry but also promoting positive online identities of themselves through social media* *L (SF) & U – **Copyright & ownership** – Their rights & responsibilities, the law crediting work of others, loyalty-free visual & audio (when creating their E-books & immersive video stories)* L (PF) - Building social interaction skills, unfamiliar people	

		for younger children (U) – create immersive 'stories' using Miles software		
Victorians	L –**Pushes and Pulls (Phys)** Physical Processes, Forces and Magnets, **Energy (Phys)** – Physical Processes (especially electricity), Scientific Enquiry, Working Scientifically U – **Pushes and Pulls (Phys)** Forces and Magnets, Forces **Energy (Phys)** – Electricity, Working Scientifically	**Information Technology & Digital Literacy** L (PF, SF) – Developing switch skills, touch screen skills & other PAM through Victorian related games & software L (PF) - Operating familiar & new household appliances with programmed latch-timers, controlling digitally generated events with & without Victorian content L (SF) & U – Using internet to find out about famous Victorians & achievements **Information Technology** L (SF) & U – Overview of changes to communication technology – telegraph> telephone> phones, texting, video calls, emails, group chats, world wide web etc. L & U – How to use social media to promote charity & fundraising projects **Computer Science** U – Link Morse code to binary – binary unplugged games & activities	L (SF) & U – **Managing information online –** reliable searches, critical evaluation of content **L (SF) & U - Online reputation -** Using technology to create positive online identities & promote modern day good causes & social action projects – link to Victorian philanthropists L (PF) - Sense of self – resilience & celebrating achievements L & U – Bullying off-line – intervention & support	Mechanical projects – levers & pulleys Or applying electric motors Or Engineering projects
Earth	L - **The Natural World (Bgy)** - Life Processes & Living Things, Plants, Animals including Humans, Living Things and Their Habitats,	**Digital Literacy** L (PF, SF) – Developing switch skills & touch screen skills & other PAM through Earth related games & software L (SF) & U – Explore the earth through apps, e.g. Google Earth, Google maps etc. Use	L (SF) & U – **Managing information online –** reliable searches, critical evaluation of content - research famous environmentalists L (SF) & U – **Online relationships, bullying, self-image & identity,**	

	Scientific Enquiry, Working Scientifically U- *The Natural World (Bgy)* - Plants, Animals including Humans, Living Things and Their Habitats, Evolution & Inheritance, Working Scientifically	functions & features L (SF) & U – Reliable searches about the Environment, famous environmentalists U – Word processing skills – writing up speeches & using screen-reading software & exploring the difference	*privacy & security* - *what* healthy relationships online should look like, e-courtesy & codes of conduct, being kind online, consequences for both sides when rules are broken, managing impulses & emotions, being pressurised to overshare or share inappropriate content, reporting & not giving up till heard, how to deal with bullying or inappropriate relationships *L (PF)* - Communication – expressing & sharing preferences & feelings	
British Culture	L –*Energy (Phys)* Physical Processes, (especially sound & electricity), Scientific Enquiry, Working Scientifically U – *Energy (Phys)* Sound, Electricity, Working Scientifically	*Digital Literacy* L (PF, SF) – Developing switch skills & touch screen skills & other PAM through British Culture related games & software L (PF) - Control elements in seaside-themed immersive sensory environments L (PF) - Express preferences for digitally generated sound – genres of pop music L (SF) & U – Using voting apps, creating online surveys – e.g. Voxvote, (U) analysing data - use with X-Factor performance, to select preferences of aspects of British culture – e.g. favourite pop band, jokes, flavoured rock, book, author, Seaside destination etc.	*L (SF) & U – Copyright & ownership* – Their rights & responsibilities, the law crediting work of others, loyalty-free visual & audio (when creating their webpages & creative projects) L (PF) - Building social interaction skills, making choices & expressing preferences	

		Digital Literacy & Information Technology L (SF) & U – Manipulate & combine digital content across software programmes & devices – to write book reviews, create webpages for a TW book review website or British culture website – use e.g. Wix – (U) add plug-ins – e.g. voter ratings, comments L (SF) & U – Work on projects collaboratively - (U) across digital platforms *Information Technology* L (SF) & U – Link preferences & data collection to market research & enterprise & (U) LMI		
Beliefs and Values	L – *Properties & Changes of material (Chm)* - Materials & their Properties, Scientific Enquiry, Working Scientifically U – *Properties & Changes of Material (Chm)* - Rocks, States of Matter, Working Scientifically L –*Energy (Phys)* Physical Processes, Scientific Enquiry, Working Scientifically	*Information Technology & Digital Literacy* L (PF, SF) – Developing switch skills & touch screen skills & other PAM through volcanoes / earthquakes related games & software L (PF) - Control elements in volcano/earthquake-themed immersive sensory environments L (SF) & U – Group identities, connecting with others & sharing values & beliefs - forums & online communities, using social media platforms to create & organise events	L (SF) & U - *Health, well-being & lifestyle – Technology & how it supports group identities & connecting with others -* L (SF) & U – *Online relationships* working together, valuing and respecting others opinions & ideas *L (SF) & U - Online reputation -* Using technology to create positive online identities & promote modern day good causes & social action projects	

	U – *Energy (Phys)* Earth & Space, Working Scientifically			
Going Places	L – *Properties & Changes of material (Chm)* - Materials & their Properties, Everyday Materials, Materials & their uses, Scientific Enquiry, Working Scientifically U – *Properties & Changes of Materials (Chm)* - Properties & Changes of Material, Working Scientifically L –*Pushes & Pulls (Phys)* Physical Processes, Scientific Enquiry, Working Scientifically U – *Pushes & Pulls (Phys)* Forces, Working Scientifically	*Digital Literacy* L (PF) - Controlling digitally generated on-screen events and immersive environments – a range of transport L (PF, SF) – Switch skills & toys, touch screen skills & other PAM to develop cause and effect - stop and go *Information Technology* U (L where poss) - Using the internet to locate specific information to plan journeys - navigating sitemaps, understanding search engines & rankings to locate best value of travel purchases & price and route comparison of different types of transport, companies, routes etc., going through different stages of secure payments U (L where poss) - explore technology apps useful for travel – timezones, weather apps, currency checkers, translating apps, language learning apps, flight trackers – how to navigate around them (Top 10 travel apps) *Digital Literacy & Information Technology* L (SF) & U – Explore the earth through apps, e.g. Google Earth, Google maps etc. Use functions & features to make	*Privacy & security* – *Making secure online payments, creating strong and secure passwords, scams, aware how some apps share personal info. e.g. geolocation, role of cookies in influencing what you see when browsing, ways to deal with this – e.g. pop-up blockers* *Health, Well-Being and Lifestyle* *Self-regulation and the use of technology, strategies to promote healthy sleep in regards to technology, limiting screen time*	

		Computer Science U (& L where poss) – writing, testing & debugging algorithms using block-based programming apps – giving and following directional language - creating simple games requiring directions & travel		
A Celebration of Suffolk	L - *The Natural World (Bgy)* - Life Processes & Living Things, Animals including Humans, Living Things and Their Habitats, Scientific Enquiry, Working Scientifically U- *The Natural World (Bgy)* - Animals including Humans, Living Things and Their Habitats, Working Scientifically L – *Materials (Chm)* - Materials & their Properties, Everyday Materials, Materials & their Uses, Scientific Enquiry, Working Scientifically U – *Materials (Chm)* - Everyday Materials,	**Digital Literacy** L (PF) - Use technology to engage in social turn-taking and communication games L (PF) - Responding to and controlling technology in immersive environments, music & audio-visual **Digital literacy and Information Technology** U (& L where poss) Explore use of platforms/social media sites that people (especially artists use) to promote self & their work U & L – Manipulate and combine digital content across devices & software applications to create musical creations of their own, store, retrieve content U – Using and creating forms to gather information e.g. research and evaluate findings about different parts of Suffolk - e.g. favourite places visited, also create and complete for job applications in Suffolk U (and L where poss) Fact-finding - places in Suffolk – exploring different types of	*Self-image and identity* Digital profiles – digital identities & self-promotion - benefits and risks and how to reduce and deal with these, being responsible re stereotypes, views and opinions, influencing and role models, contributing to other's online identities in positive and negative ways U (L where poss) – *Copyright and ownership* – identifying their work as their own, knowing basic principles of fair use, seeking permission to use someone else's work, acknowledging the contributions of others, illegal downloading, understanding copyright is enshrined in law, impact of copyright theft on the creators L (SF) & U – *Managing information online* – reliable searches, critical evaluation of content, understanding cookies and how they influence	

	Materials & their Uses, Working Scientifically	information sources, comparing them and the type of information they give	searches, ranking, autocomplete,	
The Big Screen	L –*Energy (Phys)* Physical Processes, (especially sound, light & electricity), Scientific Enquiry, Working Scientifically U – *Energy (Phys)* Sound, Light & Electricity, Working Scientifically	***Digital technology*** L (PF) - Using technology to communicate, explore & control preferences – visual & audio content, share experiences with others *Digital Literacy & Information Technology* L & U - Collaborative and creative working – Combining digital content to for creative purposes – visual and audio content, using video content to create simple films, save & retrieve digital content – organising content, consider audience – creating a film about our school, using recording and film-editing software to conduct and edit interviews with members of the school community	***Online relationships, self-image and identity*** Exploring portrayal of relationships on screen, knowing the difference between friendship and intimate relationships, healthy and unhealthy relationships, self-image, challenging portrayal of stereotypes in film L & U - *Online relationships* – collaborative working, working as a team & valuing others opinions & ideas U (L where poss) – ***Copyright and ownership*** – identifying their work as their own, knowing basic principles of fair use, seeking permission to use someone else's work, acknowledging the contributions of others, illegal downloading, understanding copyright is enshrined in law, impact of copyright theft on the creators ***Online reputation –*** U – using the internet for positive self-promotion – platforms people use to share & promote their work – school website	
Ancient Civilizations	L - *The Natural World (Bgy)* - Life Processes &	***Digital technology*** L (PF) - Using technology to	L (SF) & U – ***Online relationships, self-image & identity, online***	

	Living Things, Scientific Enquiry, Working Scientifically U- *The Natural World (Bgy)* - Evolution & Inheritance, Working Scientifically L – *Properties & Changes of material (Chm)* - Materials & their Properties, Scientific Enquiry, Working Scientifically U – *Properties & Changes of Materials (Chm)* - Rocks, Working Scientifically	develop understanding of and represent themselves & share experiences with others, engage in social turn-taking games, especially with less familiar peers or visitors L (PF) – control digitally generated immersive environments on theme – Ancient Greece *Digital Literacy and Information Technology* L & U - Collaborative working – abiding by democratic rules to produce & share audio & digital presentations in pairs or groups, consideration of audience – debate about e.g. the best Greek God, the best Olympic sport, the best Greek myth etc. U (L where poss) - explore technology apps useful for sport and health and fitness– – how to navigate around them (Top 10 sport and fitness apps) -	*reputation* - legacy, digital footprint, what healthy relationships online should look like, e-courtesy & codes of conduct, being kind online, consequences on both parts when rules are broken L (SF) & U – *Online relationships* - democracy – working together, valuing and respecting others opinions & ideas *Health, Well-Being and Lifestyle* *Self-regulation and the use of technology, strategies to promote healthy sleep in regards to technology, limiting screen time, fitness apps & technologies*	
Global Rhythm and Rhyme	L –*Energy (Phys)* Physical Processes, (especially sound & light), Scientific Enquiry, Working Scientifically U – *Energy (Phys)* Sound, Light, Working Scientifically	*Digital Literacy* L (PF, SF) – Developing switch skills, touch screen skills & other PAM to express likes and dislikes L (PF) - Operating cooking appliances, e.g. Blenders, microwaves, whisks, programmed latch-timers, controlling digitally generated games & apps on food theme *Digital Literacy & Information Technology* L (SF) & U – Budgeting when shopping – explore price	*Privacy & security –* *Making secure online payments, creating strong and secure passwords, scams, role of cookies in influencing what you see when browsing, ways to deal with this – e.g. pop-up blockers* *Online relationships and online reputations & bullying* U & (L where poss) Respect for others - especially cultural diversity, being sensitive to other cultures' beliefs	

		comparison & ways to budget using online shopping, calculators, Smartshop apps & handsets U & L – Manipulate and combine digital content across devices & software applications to create musical creations of their own, store, retrieve content	and practices but identify what is legal and acceptable – use trusted adults to support me with this, being kind, the right to say no, reporting & blocking unkind comments	

Science Strands (semi-formal and formal) *(pre-formal)* and Schema

Biology	
Life Processes & Living Things	Demonstrates an increasing awareness of their own body: e.g. notices pain, responds to being touched, explores their own body, observes parts of their body – e.g. hands. Moves their whole body and body parts in increasingly complex ways: e.g. stamps feet, claps hands, observes self in mirror. Demonstrates an increasing awareness of, and responsiveness to other people & distinguishes between familiar and unfamiliar people. Anticipates some form of bodily interaction or sensation, e.g. Anticipates getting dressed, being bathed. Begins to use conventional forms of communication to interact with another; e.g. recognises or uses a familiar person's name. Explores phenomena (of varying temperatures, textures, consistencies, sizes etc.) from the natural world in a variety of increasingly complex ways for increasing lengths of time with increasing amounts of concentration and focus and increasing amounts of purpose, including in response to another's actions: e.g. water, soil, plants, rocks, trees. Forms of interaction: pats, presses, shakes etc. Degree of intention: e.g. deliberately picks up an object to explore, reaches for light. Degree of interaction: observes an object being placed in a container and removes it, deliberately drops an object, points or gestures to objects, indicates if they are cold, hot etc, makes simple choices between objects. Anticipates an outcome of an interaction of theirs with an object, e.g. knocking over a pile of wood. Responds to increasingly less obvious and more complex changes in their environment: e.g. Light & light patterns, loud & more subtle sounds of nature, movement of themselves & movement of animals in close range and further away. Encounters/demonstrates awareness of/responds to a range of real animals and increasingly representations of animals, e.g. pictures in a book, on screen Demonstrates preferences for natural experiences and communicates this in simple ways, e.g. withdrawing hand. Encounters/demonstrates awareness of/responds to being in different natural environments: e.g. school grounds, park, garden, woodland, wetland, under a tree, in a naturally perfumed environment. Encounters/demonstrates awareness of/responds to visually stimulating experiences in nature: e.g. colourful flowers, auditorily stimulating experiences in nature: e.g. bird song, moving water, gustatorily stimulating experiences in nature; e.g. tasting fruit, vegetables, milk, olfactorily stimulating experiences in nature: herbs, tactically stimulating experiences in nature, e.g. grasses, rushes, ice. Encounters/demonstrates awareness of/responds different seasons. Demonstrates an increasing awareness of activities associated with the natural environment and takes part in shared guardianship of the natural environment, e.g. someone watering the garden or planting seeds, petting an animal gently or caring for a pet
Schema – The Natural World	
Plants	Observe & describe how seeds & bulbs grow into plants, needs of water, light, temperature – germination, growth, survival, reproduction, comparative tests Identify parts of plants & their needs: air, light, water, nutrients, room & how they vary, life cycle – pollination, seed dispersal, structure & function.
Animals including Humans	Name, classify, describe, compare, care for - fish, amphibians, reptiles, birds and mammals – omnivores, herbivores, carnivores. Name parts of human body, link to senses. Have offspring that grow into adults, basic needs – water, food, air, exercise, right amounts of different food, hygiene Human skeleton & muscles for support, movement & protection, nutrition, functions of parts of the body – digestive system, teeth – compare differences in herbivores and carnivores - food chains – predators, prey, describe stages in growth & development till old age & changes in puberty, circulatory system, functions of heart, blood vessels and blood, impact of diet, exercise and drugs, lifestyle choices
Living Things and Their Habitats	Identify things that are dead, alive & have never been dead, explain how habitats suit the things that live their & how they depend on each other, name plants & animals in particular habitats, food chains and food sources – habitats & micro-habitats, familiar & less familiar habitats, e.g. seashore, woodland, rainforest, sort & classify, ask questions, note changes to environment & how this poses danger to living things – nature reserves, effects of deforestation, population, differences in life cycles – mammals, amphibians, insects, birds, reproduction, work of famous naturalists & animal behaviourists, vertebrates & invertebrates, classification systems, David Attenborough and Jane Goodall, Carl Linnaeus
Evolution & Inheritance	Living things have changed over time, information fossils provide, living things produce offspring, not identical to parents, plants and animals adapt to environment – evolution, Mary Anning, Charles Darwin and Alfred Wallace
Chemistry	
Materials & Their	Experiences, with growing attention, responsiveness, anticipation & recognition a range of everyday materials,

Properties	textures and tactile experiences: e.g. wet, dry hands, soft pillows, teeth being brushed, modelling dough. Interacts with these increasingly complex, purposeful ways, and examines what they have done e.g. mouths, tears, rips, scrunches, rolls. Uses other objects to manipulate some materials e.g. pressing shapes in dough, pouring water from a pot, and does so with increasing accuracy, repetition and complexity and for a greater range of materials e.g. pours water from one pot to another, from different heights
Schema - Materials	
Everyday Materials	Identify, describe, group & compare properties of wood, plastic, glass, metal, water, and rock - hard/soft; stretchy/stiff; shiny/dull; rough/smooth; bendy/not bendy; waterproof/not waterproof; absorbent/not absorbent; opaque/transparent
Uses of Everyday Materials	Ask questions 'What is the best material for…?' explore how shape changes by squashing, bending, twisting and stretching & suitability for different things - observation & classification
Schema – Properties and Changes of Materials	
Properties and Changes of Material	Identify, describe, group & compare properties of wood, plastic, glass, metal, water, and rock - hard/soft; stretchy/stiff; shiny/dull; rough/smooth; bendy/not bendy; waterproof/not waterproof; absorbent/not absorbent; opaque/transparent – ask questions 'What is the best material for…?' explore how shape changes by squashing, bending, twisting and stretching & suitability for different things - observation & classification, Ruth Benerito
States of Matter	Compare, group solids, liquids, gases, observe effects of heating & cooling, measure temperature, water cycle – evaporation & condensation – changes in the world around them
Rocks	Classify, group rocks, describe how fossils are formed, explore soils made from rocks -contain crystals, fossils, observe changes when rubbed or in water
Physics	
Physical Processes	Responds with increasing complexity to increasing range of phenomena: e.g. light & light patterns, loud & more subtle noises, movement of themselves & movement of objects in close range and further away. Applies and explores outcome of force on different objects with increasing purpose and complexity: pushes, pulls, bangs, presses buttons, rolls & stops objects. Is increasingly aware of light, dark, shadow & has a growing understanding of where the light source is
Schema – The Universe	
Seasonal Changes	Observe seasonal changes, name & describe 4 seasons & associated weather, length of day, make charts & tables
Earth and Space	Movement of Earth & other planets relative to the sun, moon to the Earth, explain Earth's rotation, night and day, name planets of the solar system, time of day, shadow clocks, sundials, Ptolemy, Alhazen and Copernicus
Schema – Pushes & Pulls	
Forces and Magnets	Explore how different surfaces affect how things move, some forces need contact, others don't, how magnets and materials repel & attract, magnetic poles, compare & group – make predictions, carry out tests, record data, find patterns
Forces	Gravity – falling objects, air & water resistance, friction, mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect, Galileo Galilei and Isaac Newton
Schema - Energy	
Light	Compare dark & light, reflection from surfaces, danger of sunlight, shadows – translucent, opaque, transparent, distance of light & how light behaves, travels in straight lines, how reflect light into the eye, trajectories of light, explain shape of shadows
Sound	Explore how sound is made, vibrations, travel through a medium, patterns between pitch & sound, volume & strength of vibrations, objects that produce it, sounds get fainter with distance from sound source, investigate sound sources & insulation against sound, make own instruments
Electricity	Identify electrical appliances, construct & problem-solve circuits - cells, wires, bulbs, switches and buzzers, recognise common conductors and insulators, know good conductors – current, voltage, reasons for variations in how components function, representation of circuit symbolically