## Year 5 and 6

**Year B**

| | **Autumn 1 and 2 - Ancient Egypt** | | **Spring 1 - Greece** | **Spring 2 – Wonders of the world** | **Summer 1 and 2 - Tudors** | |
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| **I wonder…** | What caused the end of the Pharaohs? | | How did the Ancient Greeks influence us? | Why is it important to protect unique environments? | Who was more famous, Henry VIII or his wives? | Should you believe all you're told? |
| **Trips** | | British Museum | Hook Day | | Hook Day | (residential) |
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| **Science** | Chemistry | Physics | Biology | Physics | Biology | Chemistry |
| | Properties and Changes to Materials | Forces | Plants | Earth and Space | Animals including Humans | Reversible and Irreversible Changes |
| **Explorify** | Resilient rovers | Defying gravity | What is inside flowers. | Maggie Aderin-Pocock | Cared for a baby animal? | Melting Ice cubes |
| **Science Real Life Link** | Electrician<br>Vehicles design and makers | Pilot | Horticulturist<br>Landscape gardener | Astronaut<br>Environmentalist<br>Star gazer | Vet<br>Zoo keeper | Biologist |
| **Science objectives (knowledge)** | • Compare and group together everyday materials based on evidence from comparative and fair tests, including their hardness, solubility, conductivity (electrical and thermal), and response to magnets. | • Explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object.<br>• Identify the effect of drag forces, such as air resistance, water resistance and friction that act between moving surfaces.<br>• *Describe, in terms of drag forces, why moving* | Identify differences, similarities or changes related to simple, scientific ideas and processes.<br>Use straightforward, scientific evidence to answer questions or to support their findings.<br><br>• Describe the life process of reproduction in some plants and animals.<br>• Describe how living things are classified into broad groups according to | • Describe the movement of the Earth, and other planets, relative to the Sun in the solar system.<br>• Describe the movement of the Moon relative to the Earth.<br>• Describe the Sun, Earth and Moon as approximately spherical bodies. | Identify differences, similarities or changes related to simple, scientific ideas and processes.<br>Use straightforward, scientific evidence to answer questions or to support their findings.<br><br>• Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird.<br>• Describe how living things are classified into | • Give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic.<br>• Demonstrate that dissolving, mixing and changes of state are reversible changes. |

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| | | *objects that are not driven tend to slow down.*<br>• *Understand that force and motion can be transferred through mechanical devices such as gears, pulleys, levers and springs.*<br>• Understand that some mechanisms including levers, pulleys and gears, allow a smaller force to have a greater effect. | common observable characteristics.<br>• Give reasons for classifying plants and animals based on specific characteristics. | • Use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky. | broad groups according to common observable characteristics.<br>• Give reasons for classifying plants and animals based on specific characteristics. | • Explain that some changes result in the formation of new materials, and that this kind of change is not usually reversible, including changes associated with burning, oxidisation and the action of acid on bicarbonate of soda.<br><br>(Sex and Relationships Education<br>• Describe the life process of reproduction in some plants and animals.) |
| **Science skills** | To raise questions about working scientifically<br>To carry out scientific investigations<br>To report and explain findings<br>To use scientific vocabulary | To raise questions about working scientifically<br>To report and explain findings<br>To use scientific vocabulary | To raise questions about working scientifically<br>To carry out scientific investigations<br>To use scientific vocabulary | To raise questions about working scientifically<br>To report and explain findings<br>To find links between scientific technologies<br>To use scientific vocabulary | To carry out scientific investigations<br>To report and explain findings<br>To use scientific vocabulary | To carry out scientific investigations<br>To report and explain findings<br>To find links between scientific technologies<br>To use scientific vocabulary |
| **Science Specific Key Knowledge** | Conductors and insulators – designing a lunch box.<br><br>Soluble or insoluble – investigating sugar | Practical's carry out included making the most efficient parachute, investigating friction using different materials and a rolling pin, | Classification<br><br>Pupils investigate who Carl Linnaeus was and his importance in science. | Pupils get the chance to model the solar system and how the planets, sun and | Classification and characteristics of different classes of life forms (mammals, amphibians, birds, fish and reptiles). | Reversible and irreversible changes.<br><br>Pupils will learn how to use |

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| | dissolving when temperature is changed.<br><br>Separating materials – hardness, solubility, conductivity and response to magnets. Practical using different separation techniques.<br><br>Irreversible and reversible changes – investigation into whether reactions can be reversed or whether the products are now completely different.<br><br><u>Vocabulary:</u><br>Conductor, insulator, reactions, investigation, conductivity, soluble and insoluble, magnetic, dissolve fair test, prediction method, conclusion evaluation, observations, hypothesis temperature, volume solid, liquid and gas. | observing movement. Pupils then designed a machine looking at cogs and their movement.<br><br><u>Vocabulary:</u><br>Earth and Space<br>Planets, Orbit<br>Rotation, Moon<br>Moon phases<br>Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, Neptune,<br>Gravity,<br>Spherical bodies,<br>Day and night,<br>Seasons<br>Distance<br>Sun, Star<br>Geocentric<br>Heliocentric<br>Copernicus | We recap prior knowledge such as how animals and plants are grouped by looking at their features.<br><br>Create classification keys for plants and animals investigating their features.<br>Practical investigation looking at growth of mould on bread. Pupils learn how to investigate correctly, controlling variables and recording their observations.<br><br>Investigate difficulties in classification, pupils can use research tools to focus on one animal. Using laptops and books.<br><br><u>Vocabulary:</u><br>Classification<br>Carl Linnaeus<br>Mammal, Reptile<br>Amphibian, Fish<br>Insect<br>Classification key<br>Features, Variables<br>Observations<br>Cold and warm blooded<br>Phylum, Genus, Species, Kingdom,<br>order, group, family, class, Eukarya | moon orbit in relation to one another.<br><br>Pupils investigate different evidence to try to move the earth is spherical and not flat.<br><br>Pupils are then required to order and name the planets.<br><br>Explain the difference between Heliocentric and Geocentric models.<br><br>Pupils investigate the moon phases, how we have day and night and touch on why we experience different seasons. Linking all of this to the movement in relation to one another.<br><br><u>Vocabulary:</u><br>Identifying forces, push and pull.<br>Air resistance,<br>Gravity,<br>up-thrust,<br>water resistance, streamlined, drag, friction, buoyancy, cogs, levers and fulcrum, motion | Understanding Life cycles of different living things. Investigating the differences between species, looking at phenomena such as metamorphosis.<br><br><u>Vocabulary:</u><br>Classification<br>Species, Mammal<br>Bird, Fish<br>Insect, Reptile<br>Amphibian<br>Metamorphosis<br>Life cycle<br>Warm blooded and cold blooded<br>Characteristics<br>Reproduction<br>Ovaries, Ovules<br>Stamen, Style<br>Filaments and anther<br>Cycle, Testicles<br>Penis, Fertile<br>Infertile, Egg/Ovum<br>Sperm, Ovule<br>Pollen | comparative and fair tests based around everyday materials, to explore their features and how we use these to create products.<br><br>Practical's to investigate changes of state. Pupils will observe oxidation reactions and be able to explain the difference between reversible and irreversible reactions.<br><br><u>Vocabulary:</u><br>Irreversible<br>Reversible<br>Chemical changes<br>Oxidation<br>Reaction<br>Products<br>Rust<br>Bond |

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| | | | Vertebrate and invertebrate | | | |
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| **History** | Chronology<br>The nature of ancient civilisations<br>Cultural | | Ancient Greece – a study of Greek life and achievements and their influence on the western world | | Chronology<br>Sources and analysing validity<br>British History<br>Significant People – Elizabeth 1st (Armada) | |
| | Monarchy / empire | | Invention (Civilisation and economy) | | Religious and Social (Peasantry) | |
| | Chronology | | Religious and Social (Peasantry) | | Military and Political (parliament) | |
| **History objectives (knowledge)** | • Use sources of evidence to deduce information about the past.<br>• Understand that no single source of evidence gives the full answer to questions about the past.<br>• Compare some of the times studied with those of the other areas of interest around the world.<br>• Describe the main changes in a period of history (using terms such as: social, religious, political, technological and cultural)<br>• Understand the concepts of continuity and change over time, representing them, along with evidence, on a time line.<br>• Use dates and terms accurately in describing events.<br>• Use appropriate historical vocabulary to communicate, including: dates, time period, era, chronology, continuity, change, century, decade, legacy.<br>• Use literacy, numeracy and computing skills to an exceptional standard in order to communicate information about the past. | | • Describe the main changes in a period of history (using terms such as: social, religious, political, technological and cultural)<br>• Use sources of evidence to deduce information about the past.<br>• Use dates and terms accurately in describing events. | | • Use sources of evidence to deduce information about the past.<br>• Understand that no single source of evidence gives the full answer to questions about the past.<br>• Give a broad overview of life in Britain from medieval until the Tudor and Stuarts times.<br>• Compare some of the times studied with those of the other areas of interest around the world.<br>• Describe the main changes in a period of history (using terms such as: social, religious, political, technological and cultural)<br>• Understand the concepts of continuity and change over time, representing them, along with evidence, on a time line.<br>• Use dates and terms accurately in describing events.<br>• Use appropriate historical vocabulary to communicate, including: dates, time period, era, chronology, continuity, change, century, decade, legacy. | |

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| | • Use original ways to present information and ideas. | | | • Use literacy, numeracy and computing skills to an exceptional standard in order to communicate information about the past.<br>• Use original ways to present information and ideas. |
| **History skills** | To interpret and compare sources<br><br>To question and explain events of the past<br><br>To use chronology<br><br>To use historical vocabulary<br><br>To gather evidence<br><br>To ask historical questions | To use chronology<br><br>To use historical vocabulary<br><br>To gather evidence | | To interpret and compare sources<br><br>To question and explain events of the past<br><br>To use chronology<br><br>To use historical vocabulary<br><br>To gather evidence<br><br>To ask historical questions |
| **History Specific Key Knowledge** | Daily life – women, children, enslaved, men, tradesmen, scribe<br><br>Compared sources – games, statues, Compare similar cultures in the same time period- Romans – linked to prior learning<br><br>Vocabulary – ancient, civilisation, Egypt, hieroglyphs, irrigation, the Nile, pharaoh, tomb, empire, BC, BCE, Toth, Maat, Osiris, Anubis, Pyramid.<br><br>Timelines- Ancient Egypt in relation to other cultures from prior knowledge e.g. Romans, world wars, modern day.<br><br>Hierarchy of people- slaves, farmer, craftsman, scribe, vizier, pharaoh<br><br>Tutankhamun- Howard Carter and the discovery, artefacts found in tomb | Greek vases/ paintings<br><br>Daily life- women, children, men,<br><br>Trojan horse- looking at a range of sources, how trustworthy<br><br>Philosophers- Homer, Socrates, Aristotle, Plato, Hippocrates.<br><br>Comparing Olympics modern day and ancient – similarities and differences<br><br>Sparta and Athens – similarities and differences, what is a city | | Time lines- Tudors and Elizabethan Era in relation to prior learning.<br>Sources to compare- paintings, Tapestries and letters.<br><br>Comparing start of Tudors to end – daily life, religion, culture, leadership, Royal family.<br><br>Daily life – religion, women, men, children, royal family, theatre (Elizabethan era).<br><br>Vocab- monarch, sovereign, armada, reign, treason, heirs, monasteries, dissolution, reformation, dispensation, successor, catholic, protestant.<br><br>Comparison of Elizabeth 1st and Henry 8th – as a ruler, as they are portrayed in paintings,<br><br>Before Tudors- links with war of the roses |

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| | | | state, battles between them. | | Dissolution of monasteries- Catholics vs Protestants<br><br>Priest holes<br>Cross over of centuries<br>Armada<br>Politics – how this influence the culture and daily life of people. | |
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| **Geography** | | Locational and Place Knowledge | Physical Knowledge | Geographical skills and fieldwork | | Human Geography |
| | | Human Geography | | Physical Knowledge | | Locational and Place Knowledge |
| **Geography objectives (knowledge)** | | Egypt (Africa)<br><br>**<u>LOCATIONAL KNOWLEDGE</u>**<br>Locate the world's countries, using maps to focus on Europe (including the location of Russia) and North and South America, concentrating on their environmental regions, key physical and human characteristics, countries, and major cities<br>identify the position and significance of latitude, longitude, Equator, Northern Hemisphere, Southern Hemisphere, the Tropics of Cancer and Capricorn, Arctic and | Greek Islands – Europe<br><br>describe and understand key aspects of: physical geography, including: climate zones, biomes and vegetation belts, rivers, mountains, volcanoes and earthquakes, and the water cycle | use maps, atlases, globes and digital/computer mapping to locate countries and describe features studied<br><br>use the eight points of a compass, four and six-figure grid references, symbols and key (including the use of Ordnance Survey maps) to build their knowledge of the United Kingdom and the wider world<br><br>use fieldwork to observe, measure, record and present the human and physical | | UK<br><br>describe and understand key aspects of: human geography, including: types of settlement and land use, economic activity including trade links, and the distribution of natural resources including energy, food, minerals and water<br><br>name and locate counties and cities of the United Kingdom, geographical |

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| | | Antarctic Circle, the Prime/Greenwich Meridian and time zones (including day and night)<br><br>**<u>PLACE KNOWLEDGE</u>**<br>understand geographical similarities and differences through the study of human and physical geography of a region of the United Kingdom, a region in a European country, and a region within North or South America<br><br>**<u>HUMAN AND PHYSICAL GEOGRAPHY</u>**<br>describe and understand key aspects of: human geography, including: types of settlement and land use, economic activity including trade links, and the distribution of natural resources including energy, food, minerals and water | | features in the local area using a range of methods, including sketch maps, plans and graphs, and digital technologies.<br><br>describe and understand key aspects of: physical geography, including: climate zones, biomes and vegetation belts, rivers, mountains and the water cycle | | regions and their identifying human and physical characteristics, key topographical features (including hills, mountains, coasts and rivers), and land-use patterns; and understand how some of these aspects have changed over time |
| **Geography skills** | | To ask and answer geographical questions<br><br>To understand and explain physical features<br><br>To understand and explain human features | | To use geographical resources (including maps)<br><br>To use fieldwork and observation skills | | To ask and answer geographical questions<br><br>To use geographical resources (including maps) |

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| | | To compare locations (including local)<br><br>To use geographical language and vocabulary | | To use geographical language and vocabulary<br><br>To understand and explain physical features | | To use fieldwork and observation skills<br><br>To understand and explain human features<br><br>To compare locations (including local)<br><br>To use geographical language and vocabulary |
| **Geography Specific Key Knowledge** | | River Nile,<br>Giza Plateau,<br>Nile Delta,<br>Desert,<br>Eastern and Western Desert,<br>Sahara and Libyan | Mount Olympus<br>Different seas surrounding islands – Ionian, Aegean, Mediterranean.<br>Archipelago | Mount Snowdon,<br>Scafell,<br>Ben Nevis,<br>River Thames,<br>River Avon,<br>River Severn,<br>River Ouse,<br>Chilterns,<br>Cheviots,<br>Pennines,<br>Brecon Beacons<br><br>Amazon Rainforest and Antarctica | | Southminster<br>Stonehenge<br>Avebury |
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| **Art and Design** | Drawing | | Collage | | Digital Media | |

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| | Still life – Portraits<br><br>Marie Lousie Elisabeth Vigee-Lebrun | | Derek Gores – recycled materials<br><br>Ancient Greek masks | | Tasia M. S. (Johannesburg, South Africa) - specializes in creating empowering female figures.<br>Anthony Gormley | |
| **Art objectives (knowledge)** | • Use a variety of techniques to add interesting effects (e.g. reflections, shadows, direction of sunlight).<br>• Use a choice of techniques to depict movement, perspective, shadows and reflection.<br>• Choose a style of drawing suitable for the work (e.g. realistic or impressionistic).<br>• Use lines to represent movement. | | • Mix textures (rough and smooth, plain and patterned).<br>• Combine visual and tactile qualities.<br>• Use ceramic mosaic materials and techniques. | | • Enhance digital media by editing (including sound, video, animation, still images and installations). | |
| **Art Skills** | To take inspiration and respond to art<br><br>To use drawing skills | | To take inspiration and respond to art<br><br>To use cutting and fixing techniques | | To take inspiration and respond to art<br><br>To use digital media to create images (links with computing – KS2) | |
| **Art specific Key Knowledge** | Leonardo Da Vinci<br>Marie Lousie Elisabeth Vigee-Lebrun<br>Portraits<br>Shape<br>Tone | | Derek Gores – recycled materials<br>Gary Drostle – mosaics<br>Comparison of ancient and modern mosaics<br>Colour<br>Shape | | Tasia M. S.<br>Anthony Gormley<br>Mondrian for the background.<br>Colour<br>Shape<br>Animation | |

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| | Shading<br>Materials – charcoal vs pencil. | | Technique<br>Materials | | Wire figures<br>Nightmare before Christmas – how it was made video<br>Aardman video<br>Anime<br>Animator<br>Film | |
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| **Design & Technology** | | Electronics and Mechanics | | Food and Nutrition | | Textiles |
| | | | | Food from around the world – Latin America | | Making a cushion with a Tudor design on it |
| **DT objectives (knowledge)** | | Beulah Louise Henry – female<br><br>• Convert rotary motion to linear using cams.<br>• Use innovative combinations of electronics (or computing) and mechanics in product designs. | | • Understand the importance of correct storage and handling of ingredients (using knowledge of micro-organisms).<br>• Measure accurately and calculate ratios of ingredients to scale up or down from a recipe.<br>• Demonstrate a range of baking and cooking techniques.<br>• Create and refine recipes, including ingredients, methods, cooking times and temperatures. | | • Create objects (such as a cushion) that employ a seam allowance.<br>• Join textiles with a combination of stitching techniques (such as back stitch for seams and running stitch to attach decoration).<br>• Use the qualities of materials to create suitable visual and tactile effects in the decoration of textiles (such as a soft decoration for comfort on a cushion). |

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| **DT skills** | | To use mechanics (and apply coding KS2)<br><br>To construct and assemble products<br><br>To design with a purpose<br><br>To explore and compare product design | | To prepare, assemble and cook food hygienically<br><br>To construct and assemble products<br><br>To evaluate, refine and improve | | To use modify and create textiles<br><br>To design with a purpose<br><br>To evaluate, refine and improve<br><br>To explore and compare product design |
| **DT Specific Key Knowledge** | | Cam<br>Cam shaft<br>Rotary motion<br>Linear motion<br>Product<br>Mechanism<br>Lever<br>Component<br>Forces<br>Slider<br>Function<br>Pivot<br>Cotton reels<br>Dowels<br>Junior hack saw<br>Blades<br>Square section wood | | Prepare<br>Cook<br>Recipe<br>Empanadas<br>Cross contamination<br>Storage<br>Hygiene<br>Food safety<br>Ratio<br>Scale<br>Recipe<br>Ingredients<br>Slice<br>Knead<br>Fold<br>Seal<br>Technique<br>Utensil<br>Accuracy<br>Assemble<br>Bowl<br>Sauce pan<br>Frying pan<br>Wooden spoon<br>Metal tray<br>Knife | | Seam allowance<br>Back stitch<br>Tudor cushion<br>Design<br>Pattern<br>Decoration<br>Felt<br>Needles<br>String<br>Thread<br>Buttons |

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| | | | | Rolling pin<br>Round cutters | | |
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| Computing | Online Safety | Data retrieving and organising. Databases | Communicating (and connecting) | Algorithms and Programs | Using the Internet Presentation | |
| Kapow Unit | Online Safety – Year 6 | Data handling 2: Big Data 2 – Year 6 | Skills showcase: Inventing a product – Year 6 | Programming 2: Micro:bit – Year 5 | Computing systems and networks: Search engines – Year 5 | |
| End of unit Objectives | Pupils who are **secure** will be able to:<br>• Discuss various issues online that can leave pupils feeling sad, frightened, worried or uncomfortable and can describe numerous ways to get help.<br>• Explain how sharing online can have both positive and negative impacts.<br>• Be aware of how to seek consent from | Pupils who are **secure** will be able to:<br>• Recognise that data can become corrupted within a network and that data sent in packets is more robust, as well as identify the need to update devices and software.<br>• Recognise differences between mobile data and WiFi and use a spreadsheet to compare and identify high-use data activities and low-use data activities. | Pupils who are **secure** will be able to:<br>• Evaluate code, understanding what it does and adapt existing to code for a specific purpose.<br>• Debug programs and make them more efficient using sequence, selection, repetition or variables.<br>• Design appropriate housing for their product using CAD software, including any input or output devices needed to make it work. | Pupils who are **secure** will be able to:<br>• Clip blocks together and predict what will happen. Make connections with previous programming interfaces they've used, e.g. Scratch.<br>• Create their own images to make the animation and recognise the difference between 'on start' and 'forever'.<br>• Recognise blocks they've | Pupils who are **secure** will be able to:<br>• Explain what a search engine is, suggesting several search engines to use and explain how to use them to find websites and information.<br>• Suggest that things online aren't always true and recognise what to check for.<br>• Explain why keywords are important and what TASK stands for, using these strategies to search effectively.<br>• Recognise the terms 'copyright' | |

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| | others before sharing material online and describe how content can still be shared online even if it is set to private.<br>• Explain what a digital reputation is and what it can consist of.<br>• Understand the importance of capturing evidence of online bullying and demonstrate some of these methods on the devices used at school.<br>• Describe ways to manage passwords and strategies to add extra security, such as two-factor authentication.<br>• Explain what to do if passwords are | • Make links between the Internet of Things and Big Data and give a basic example of how data analysis/analytics can lead to improvement in town planning.<br>• Explain ways that Big Data or IoT principles could be used to solve a problem or improve efficiency within the school and prepare a presentation about their idea, considering the privacy of some data.<br>• Present their ideas about how Big Data/IoT can improve the school and provide feedback to others on their presentations. | • Create an appealing website for their product, aimed at their target audience which explains what their product is and what it does, using persuasive language.<br>• Create an edited video of their project, articulating the key benefits.<br>• Describe and show how to search for information online and be aware of the accuracy of the results presented. | used previously, identifying inputs and outputs used and make predictions about how variables work.<br>• Choose appropriate blocks to complete the program and attempt the challenges independently.<br>• Break a program down into smaller steps, suggesting appropriate blocks and match the algorithm to the program. | and 'fair use' and combine text and images in a poster.<br>• Make parallels between book searching and internet searching, explaining the role of web crawlers and recognising that results are rated to decide rank. | |

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| | shared, lost or stolen.<br>• Describe strategies to identify scams.<br>• Explain ways to increase their privacy settings and understand why it is important to keep their software updated. | | | | | |
| Computing Skills | To use online platforms appropriately<br><br>To be safe and responsible | To collect, organise and present data | To use online platforms appropriately<br><br>To be safe and responsible<br><br>To understand e-safety laws<br><br>To communicate through APPs and devices | To understand and import instructions for controlling objects (coding)<br><br>To use variables for calculations (KS2) | | |
| Computing Vocabulary | Content, conduct and contact<br>Online risk<br>Digital footprint<br>Age restrictions<br>Reporting<br>Cyberbullying<br>Filtering, | Data,<br>classify,<br>binary,<br>storage,<br>branching database,<br>file,<br>statistics,<br>facts, | Input,<br>output,<br>process,<br>digital,<br>programs,<br>devices,<br>connections,<br>networks, | Rotation,<br>position,<br>broadcasting,<br>movements,<br>degrees,<br>random,<br>proximity, | Download,<br>formatting,<br>capture,<br>links,<br>editing,<br>complex,<br>text formatting,<br>multimedia, | |

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| | malware,<br>password,<br>opinion,<br>phishing,<br>reliable,<br>report,<br>spam | information,<br>tables,<br>fields,<br>records,<br>statistics, pictogram,<br>collate | network switch,<br>access point,<br>component,<br>server,<br>wireless. | sensing,<br>inputs. | home page | |
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| **Music** | Livin' on a prayer | Make you feel my love. Bob Dylan | | Classroom Jazz 1 | Fresh prince of Bel Air | |
| **PE** | Get Set PE | | | | | |
| **PSHE** | Jigsaw | | | | | |
| **RE** | See RE LTP | | | | | |

**Year A**

| | **Autumn 1 and 2 - World Wars** | | **Spring 1 - Volcanoes and Earthquakes** | **Spring 2 - Vikings** | **Summer 1 and 2 - Islands** | |
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| **I wonder…** | Why did Britain go to war? | How did Britain win the war? | What's below our feet? | Were the Vikings mad, bad or misunderstood? | Would you survive on a desert island? | Is it a bird or is it a plane? |
| **Trips** | Hook Day | Freshwater theatre? | | Hook Day | | Residentials |
| | | | | | | |
| **Science** | Physics | Physics | Chemistry | Physics | Biology | Biology |
| | Electricity and Sound | Light | Properties and Changes to Materials | Magnets | Evolution and Inheritance | Animals including Humans |
| **Explorify** | Have you ever not been able to find a battery when you need one? Explorify | Shine a light Explorify | Who is Kiara Nirghin Explorify | Big Hitters Explorify | How old is that chicken Explorify | Super Broccoli Explorify |
| **Science Real Life Link** | Electrician Otorhinolaryngology | Lighting engineer and productions | Chemical engineer Forensic Researcher. Forensic Scientist | Robotic engineers MRI technicians | Vet Zoo keeper | Biologist Vet |
| **Science objectives (knowledge)** | • Find patterns between the pitch of a sound and features of the object that produced it. • Find patterns between the volume of a sound and the strength of the | • Understand that light appears to travel in straight lines. • Use the idea that light travels in straight lines to explain that objects are seen because they give | Make accurate measurements using standard units, using a range of equipment, e.g. thermometers and data loggers • Understand how some materials will | • Describe magnets as having two poles. • Predict whether two magnets will attract or repel each other, depending on which poles are facing. | • Recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago. | • Describe the changes as humans develop to old age. • Identify and name the main parts of the human circulatory system, and describe |

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| | vibrations that produced it.<br>• Recognise that sounds get fainter as the distance from the sound source increases.<br><br>• Associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit.<br>• Compare and give reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches.<br>• Use recognised symbols when representing a simple circuit in a diagram. | out or reflect light into the eyes.<br>• Use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them, and to predict the size of shadows when the position of the light source changes.<br>• Explain that we see things because light travels from light sources to our eyes or from light sources to objects and then to our eyes. | dissolve in liquid to form a solution and describe how to recover a substance from a solution.<br>• Use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating. | | • Recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents.<br>• Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution. | the functions of the heart, blood vessels and blood.<br>• Recognise the importance of diet, exercise, drugs and lifestyle on the way the human body functions.<br>• Describe the ways in which nutrients and water are transported within animals, including humans.<br><br>Sex and Relationships Education<br>• Describe the life process of reproduction in some plants and animals. |
| **Science skills** | To carry out scientific investigations<br>To report and explain findings<br>To solve challenging problems<br>To find links between scientific technologies<br>To use scientific vocabulary | To carry out scientific investigations<br>To report and explain findings<br>To solve challenging problems<br>To find links between scientific technologies<br>To use scientific vocabulary | To raise questions about working scientifically<br>To carry out scientific investigations<br>To report and explain findings<br>To solve challenging problems<br>To use scientific vocabulary | To carry out scientific investigations<br>To report and explain findings<br>To solve challenging problems<br>To find links between scientific technologies<br>To use scientific vocabulary | To raise questions about working scientifically<br>To carry out scientific investigations<br>To report and explain findings<br>To find links between scientific technologies<br>To use scientific vocabulary | To raise questions about working scientifically<br>To carry out scientific investigations<br>To report and explain findings<br>To find links between scientific technologies |

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| | | | | | | To use scientific vocabulary |
| **Science Key Specific Knowledge** | Pattern,<br>pitch,<br>sound,<br>produce,<br>vibrations,<br>fainter, louder,<br>increases, decreases,<br>light,<br>voltage,<br>cells,<br>variation,<br>components,<br>bulbs, switches,<br>symbols, circuits,<br>diagram. | Light,<br>reflect,<br>shadows,<br>cast,<br>predict,<br>position,<br>source | Measurements,<br>standard units,<br>thermometers,<br>data loggers,<br>materials,<br>dissolve,<br>liquid, solution,<br>substance, solids,<br>liquids, gases,<br>mixture, separation,<br>filtering, evaporation,<br>sieving. | Magnets,<br>poles,<br>opposite,<br>repel,<br>attract | Evolution, inheritance,<br>fossils,<br>inhabited,<br>produce,<br>identical,<br>offspring,<br>vary,<br>variation,<br>environment,<br>adaptation, | Development,<br>circulatory system,<br>functions,<br>heart,<br>blood vessels,<br>diet,<br>exercise,<br>blood,<br>lifestyles,<br>nutrients,<br>life process,<br>reproduction,<br>process. |
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| **History** | World History<br>British History<br>Comparing sources and analysing validity<br>Significant people –<br>William Churchill, Hedy Lamarr invention | | | The Viking and Anglo-Saxon struggle for the Kingdom of England to the time of Edward the Confessor | Study of an aspect or theme in British history that extends pupils' chronological knowledge beyond 1066:<br>Transport – Planes<br>Significant people - Wright brothers, Amelia Earhart | |
| | Military and Political (parliament) | | | Religious and Social (Peasantry) | Invention (Civilisation and economy) | |
| | Invention (Civilisation and economy) | | | Monarchy / empire | Chronology | |
| **History objectives (knowledge)** | World War I (A1) and II (A2)<br>• Select suitable sources of evidence, giving reasons for choices. | | | • Seek out and analyse a wide range of evidence in order to justify claims about the past.<br>• Understand that no | | • Understand the concepts of continuity and change over time, representing them, along |

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| | • Show an awareness of the concept of propaganda and how historians must understand the social context of evidence studied.<br>• Identify continuity and change in the history of the locality of the school<br>• Describe the social, ethnic, cultural or religious diversity of past society.<br>• Describe the characteristic features of the past, including ideas, beliefs, attitudes and experiences of men, women and children.<br>• Identify periods of rapid change in history and contrast them with times of relatively little change.<br>• Understand the concepts of continuity and change over time, representing them, along with evidence, on a time line.<br>• Use appropriate historical vocabulary to communicate, including:<br>• *dates, time period, era, chronology, continuity, change, century, decade, legacy*<br>• Use literacy, numeracy and computing skills to an exceptional standard in order to communicate information about the past. | | single source of evidence gives the full answer to questions about the past.<br>• Understand the concepts of continuity and change over time, representing them, along with evidence, on a time line.<br>• Use dates and terms accurately in describing events.<br>• Use appropriate historical vocabulary to communicate, including: dates, time period, era, chronology, continuity, change, century, decade, legacy.<br>• Use literacy, numeracy and computing skills to a exceptional standard in order to communicate information about the past.<br>• Use original ways to present information and ideas. | | with evidence, on a time line.<br>• Use original ways to present information and ideas.<br>• Use sources of information to form testable hypotheses about the past.<br>• Refine lines of enquiry as appropriate.<br>• Use dates and terms accurately in describing events. |
| **History skills** | To interpret and compare sources<br><br>To question and explain events of the past<br><br>To use chronology<br><br>To use historical vocabulary | | To interpret and compare sources<br><br>To question and explain events of the past<br><br>To use chronology | | To use chronology<br><br>To use historical vocabulary<br><br>To gather evidence |

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| | To gather evidence<br><br>To ask historical questions | | To use historical vocabulary<br><br>To gather evidence<br><br>To ask historical questions | | To ask historical questions |
| **History Specific Key Knowledge** | Propaganda – Lord Kitchener<br><br>Prime minsters- Chamberlin, Attleey and Churchill vs Hitler, Goebbles, Himmler – comparison between leadership skills and techniques<br>Links with Queen – what was her influence/ how did she respond<br><br>Battle of Britain – why it happened, who was involved, the outcome, techniques used, how this effected life afterwards<br><br>Rationing – the effect on daily life, how it worked, why this happened.<br><br>High street in Southminster – Manor house was destroyed – links with local history (RAF Bradwell)<br><br>Compare aeroplanes – painting techniques for camouflage, their role in the war.<br><br>Painting of ships to look like more- cardboard tanks and planes. – techniques used during the war when resources were low.<br><br>Evacuation – affect on daily life, time period for children, how it worked, why it happened.<br><br>Anti-sematic views – their affect on society, its power in the war | | Viking and Anglo-Saxon struggle for the Kingdom of England<br><br>Edward the Confessor<br><br>Vikings in Maldon- links to local history<br>Locations of their origins and where they invaded – why they left, where they invaded (Iceland, Faroes and Orkney, Scotland, Northumbria, East Anglia, York and parts of Mercia)<br>Weapons and technology – what materials they had, Axes, War ships, armour, swords, metal.<br><br>Rollo: The First ruler of Normandy- Viking leader conducted raids on France, his descendent led a successful invasion of England<br>Did they actually wear helmets? – are sources correct. – 1800s artists | | Steam trains and how they have developed – George Stevenson Steam train, Fuel powered, electric train, magnetic train, bullet trains<br><br>Train links over time – how this has developed over time and how this affects us- a lot more established so trade and people could move across country – work further afield- class systems on trains, suburbs grew due to train network, postal networks grew<br><br>Key people: Wright brothers and Amelia Earhart – how their inventions/ journey inspired others.<br><br>Modern transport vs old transport – |

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| | Bletchley Park – enigma machine- their work and its power in the war. | | | included the head gear in paintings (Scandinavia). Written sources | | compare similarities and differences.<br><br>First forms of transport – videos of wright brothers testing planes |
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| **Geography** | Locational and Place Knowledge | Human Geography – brief | Physical Knowledge | | Human Geography | |
| | Geographical skills and fieldwork | | Locational and Place Knowledge | | Physical Knowledge | |
| **Geography objectives (knowledge)** | UK<br><br>locate the world's countries, using maps to focus on Europe (including the location of Russia) and North and South America, concentrating on their environmental regions, key physical and human characteristics, countries, and major cities<br>name and locate counties and cities of the United Kingdom, geographical regions and their identifying human and physical characteristics, key topographical features (including hills, | describe and understand key aspects of: human geography, including: types of settlement and land use, economic activity including trade links, and the distribution of natural resources including energy, food, minerals and water | California – North America<br><br>describe and understand key aspects of: physical geography, including: climate zones, biomes and vegetation belts, rivers, mountains, volcanoes and earthquakes, and the water cycle<br>identify the position and significance of latitude, longitude, Equator, Northern Hemisphere, Southern Hemisphere, the Tropics of Cancer and Capricorn, Arctic and Antarctic Circle, the | | Iceland - Europe<br>Galapagos Islands, Ecuador – South America<br><br>describe and understand key aspects of: human geography, including: types of settlement and land use, economic activity including trade links, and the distribution of natural resources including energy, food, minerals and water<br>describe and understand key aspects of: physical geography, including: climate zones, | |

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| | mountains, coasts and rivers), and land-use patterns; and understand how some of these aspects have changed over time<br>use maps, atlases, globes and digital/computer mapping to locate countries and describe features studied<br>use the eight points of a compass, four and six-figure grid references, symbols and key (including the use of Ordnance Survey maps) to build their knowledge of the United Kingdom and the wider world<br>use fieldwork to observe, measure, record and present the human and physical features in the local area using a range of methods, including sketch maps, plans and graphs, and digital technologies. | | Prime/Greenwich Meridian and time zones (including day and night)<br>understand geographical similarities and differences through the study of human and physical geography of a region of the United Kingdom, a region in a European country, and a region within North or South America | | biomes and vegetation belts, rivers, mountains, volcanoes and earthquakes, and the water cycle | |
| **Geography skills** | To ask and answer geographical questions<br><br>To use geographical resources (including maps) | | To ask and answer geographical questions | | To ask and answer geographical questions | |

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| | To use fieldwork and observation skills<br><br>To compare locations (including local)<br><br>To use geographical language and vocabulary | | To understand and explain physical features<br><br>To compare locations (including local)<br><br>To use geographical language and vocabulary | | To understand and explain physical features<br><br>To understand and explain human features<br><br>To compare locations (including local)<br><br>To use geographical language and vocabulary | |
| **Geography specific key knowledge** | England,<br>Germany<br>Stalingrad – Russia<br><br>D-day and English Channel<br><br>Battle of Britain – destroying pipe lines, bridges etc to stop trade and infrastructure. | Farming – dig for Britain<br>land use<br>making bombs and sending over<br><br>Women in factories | San Andres fault<br>Mount St Helens<br>Yellow Stone National Park<br><br>Yellowstone River<br>Missouri River | | Comparing vegetation belts - forest, grassland, tundra, desert, and ice sheet. | |
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| **Art and Design** | Printing<br>Banksy | | Painting<br>Frida Kahlo – Mexican female artist | | Sculpture<br>(Model of an island)<br>Augusta Savage<br>Yayoi Kusama | |
| **Art objectives (knowledge)** | • Build up layers of colours. | | • Sketch (lightly) before painting to combine<br>line and colour. | | • Show life-like qualities and real-life proportions or, if more abstract, provoke | |

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| | • Create an accurate pattern, showing fine detail.<br>• Use a range of visual elements to reflect the purpose of the work. | | • Create a colour palette based upon colours observed in the natural or built world.<br>• Use the qualities of watercolour and acrylic paints to create visually interesting pieces.<br>• Combine colours, tones and tints to enhance the mood of a piece.<br>• Use brush techniques and the qualities of paint to create texture.<br>• Develop a personal style of painting, drawing upon ideas from other artists. | | different interpretations.<br>• Use tools to carve and add shapes, texture and pattern.<br>• Combine visual and tactile qualities.<br>• Use frameworks (such as wire or moulds) to provide stability and form. | |
| **Art skills** | To take inspiration and respond to art<br><br>To use printing techniques | | To take inspiration and respond to art<br><br>To develop colour and patterns using brush techniques | | To take inspiration and respond to art<br><br>To sculpt with a range of resources | |
| **Art Key Specific knowledge** | Banksy- printing<br>Political voice<br>Flower thrower<br>Courtesy of pest control | | Frida Kahlo – Mexican female artist – painting | | Augusta Savage Sculpture and Peace Memorial in Dr MLK park Indiana. – model of an island | |

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| | Using a range or materials to print – creating own printing roll / mono printing | | Looking at herself portraits – highlighting shape and colour use. Primary and secondary colours. | | Yayoi Kusama's famous and whimsical Pumpkin sculpture on Naoshima Island, Japan<br><br>Look at scale<br>Model people out of wire and then create an island in scale with their people. | |
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| **Design & Technology** | Food and Nutrition | Computing (coding link) | | Materials | | Construction |
| | War time rations | | | Dana Cohen – recycled fabric | | Zaha Hadid<br>Jeanne Gang |
| **DT objectives (knowledge)** | • Understand the importance of correct storage and handling of ingredients (using knowledge of micro-organisms).<br>• Measure accurately and calculate ratios of ingredients to scale up or down from a recipe.<br>• Demonstrate a range of baking and cooking techniques.<br>• Create and refine recipes, including ingredients, | • Write code to control and monitor models or products. | | • Cut materials with precision and refine the finish with appropriate tools (such as sanding wood after cutting or a more precise scissor cut after roughly cutting out a shape).<br>• Show an understanding of the qualities of materials to choose appropriate tools to cut and shape (such as the nature of fabric may require sharper scissors than would be used to cut paper). | | • Develop a range of practical skills to create products (such as cutting, drilling and screwing, nailing, gluing, filing and sanding). |

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| | methods, cooking times and temperatures. | | | | | |
| **DT skills** | To hygienically prepare food, to measure ingredients, to weigh with accuracy and to evaluate effectively. | To use mechanics (and apply coding KS2)<br><br>To construct and assemble products<br><br>To design with a purpose<br><br>To evaluate, refine and improve | | To construct and assemble products<br><br>To design with a purpose<br><br>To evaluate, refine and improve<br><br>To explore and compare product design | | To construct and assemble products<br><br>To design with a purpose<br><br>To evaluate, refine and improve<br><br>To explore and compare product design |
| **DT Specific Key Knowledge** | Recipe<br>Eggless sponge<br>Wartime ingredients<br>Cross contamination<br>Rations<br>Storage<br>Hygiene<br>Food safety<br>Ratio<br>Scale<br>Recipe | Construct<br>Assemble<br>Code | | To be able to repurpose recycled fabrics.<br>Viking cape or bracer (wrist guard).<br>Evaluate effectively.<br>Tools<br>Finish<br>Precision<br>Fabric<br>Texture<br>Quality<br>Product | | Shelter for a desert island environment.<br>Zaha Hadid.<br>Create<br>Construct<br>Design<br>Cut<br>Drill<br>Screw<br>Risk<br>Safety<br>Materials<br>Measure<br>Accuracy |
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| Computing | Online Safety | Communicating (and connecting) | Using the Internet Presentation | | Algorithms and Programs | Data retrieving and organising. Databases |

| Kapow Unit | Online Safety – Year 5 | Computing systems and networks: Bletchley Park – Year 6 | Creating media: History of computers – Year 6 | | Programming 1: Music – Year 5 | Data handling: Mars Rover 1 – Year 5 |
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| End of unit Objectives | Pupils who are **secure** will be able to:<br>• Understand that passwords need to be strong and that apps require some form of password.<br>• Recognise some types of online communication and know who to go to if they need help with any communication matters online.<br>• Search for simple information about a person, such as their birthday or key life moments.<br>• Know what bullying is and that it can occur both online and in the real world. | Pupils who are **secure** will be able to:<br>• Explain that codes can be used for a number of different reasons and decode messages.<br>• Explain how to ensure a password is secure and how this works.<br>• Create a simple website with information about Bletchley Park including the need to build electronic thinking machines to solve cipher codes.<br>• Explain the importance of historical figures and their contribution towards computer science. | Pupils who are secure will be able to:<br>• Explain how to record sounds and add in sound effects over the top.<br>• Produce a simple radio play with some special effects and simple edits which demonstrate an understandin g of how to use the software.<br>• Create a document that includes correct date information and facts about the computers and how they made a difference.<br>• Demonstrate a clear | | Pupils who are **secure** will be able to:<br>• Iterate ideas, testing and changing throughout the lesson.<br>• Explain what the basic commands do: 'play', 'slee'p, '2.times do'.<br>• Explain how their program links to the theme. Include a loop in their work. Correct their own simple mistakes.<br>• Explain their scene in the story. Link musical concepts to their scene.<br>• Include a live loop and explain its function. Use samples | Pupils who are **secure** will be able to:<br>• Identify some types of data the Mars Rover could collect (for example, photos).<br>• Explain how the Mars Rover transmits the data back to Earth and the challenges involved.<br>• Read any number in binary, up to eight bits.<br>• Identify input, processing and output on the Mars Rovers.<br>• Read binary numbers and grasp the concept of binary addition. |

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| | • Recognise when health and well-being are being affected in either a positive or negative way through online use.<br>• Offer some advice and tips to combat the negative effects of online use. | • Present information about their historical figure in an interesting and engaging manner. | understanding of their device and how it affected modern computers, including well-researched information with an understanding of the reliability of their sources.<br>• Describe all of the features that we'd expect a computer to have including RAM, ROM, hard drive and processor, but of a higher specification than currently available. | | effectively to enhance music.<br>• Code a piece of music that combines a variety of structures. Use loops in their programming. Recognise that programming music is a way to apply their skills. | • Relate binary signals (Boolean) to a simple character-based language, ASCII. |
| Computing Skills | To use online platforms appropriately | To use online platforms appropriately | To collect, organise and present data<br>To use digital media to connect with others | | To understand and import instructions for controlling objects (coding) | To collect, organise and present data |

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| | To be safe and responsible | To be safe and responsible<br><br>To understand e-safety laws<br><br>To communicate through APPs and devices | | | To use variables for calculations (KS2) | |
| Computing Vocabulary | Internet,<br>online,<br>online communities,<br>responsibility,<br>sensitivity,<br>safety, awareness. | Websites,<br>permission,<br>copyright,<br>copyright holder,<br>networks,<br>applications,<br>communication, | Presentation,<br>audience,<br>editing,<br>still image,<br>video image,<br>links,<br>capture,<br>complex search,<br>multimedia,<br>document,<br>text formatting,<br>tools,<br>hanging indent,<br>information,<br>download | | Algorithms, programs,<br>rotation,<br>degrees,<br>broadcasting,<br>position,<br>upload,<br>edit,<br>effect,<br>fade,<br>sensing<br>tools,<br>variables,<br>random,<br>reporter. | Data,<br>classify,<br>binary,<br>storage,<br>branching database,<br>file,<br>statistics,<br>facts,<br>information,<br>tables,<br>fields,<br>records,<br>statistics,<br>pictogram,<br>collate |
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| **Music** | | A New Year Carol | Dancing in the street | | Music and Me | You got a friend in me |
| **PE** | Get Set PE | | | | | |
| **PSHE** | Jigsaw | | | | | |
| **RE** | See RE LTP | | | | | |