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|  | **Year 4** | | | | |
|  | **Autumn** | | **Spring** | **Summer** | |
| **Science** | **Electricity**  *National curriculum objectives*  -Identify common appliances that run on electricity  -Construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers  -Identify whether or not a lamp will light in a simple series circuit, based on whether or not the lamp is part of a complete loop with a battery  -Recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit  -Recognise some common conductors and insulators, and associate metals with being good conductors.   * **Identify and name appliances that require electricity to function** * **Construct a series circuit** * **Identify and name the components in a series circuit (including cells, wires, bulbs, switches and buzzers)** * **Predict and test whether a lamp will light within a circuit** * **Know the difference between a conductor and an insulator; giving examples of each** | | **Sound**  *National curriculum objectives*  -Identify how sounds are made, associating some of them with something vibrating  -Recognise that vibrations from sounds travel through a medium to the ear  -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 vibrations that produced it Recognise that sounds get fainter as the distance from the sound source increases   * **Know how sound is made, associating some of them with vibrating** * **Know how sound travels from a source to our ears** * **Know the correlation between pitch and the object producing a sound** * **Know the correlation between the volume of a sound and the strength of the vibrations that produced it** * **Know what happens to a sound as it travels away from it’s source**   **States of Matter**  *National curriculum objectives*  -Compare and group materials together, according to whether they are solids, liquids or gases  -Observe that some materials change state when they are heated or cooled, and measure or research the temperature at which this happens in degrees Celsius (°C)  -Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature.   * **Know the temperature at which materials change state** * **Know about and explore how some materials can change state** * **Know the part played by evaporation and condensation in the water cycle** * **Group materials based on their state of matter (solid, liquid and gas)** | **Animals including Humans**  *National curriculum objectives*  -Describe the simple functions of the basic parts of the digestive system in humans  -Identify the different types of teeth in humans and their simple functions  -Construct and interpret a variety of food chains, identifying producers, predators and prey   * **Identify and name the parts of the human digestive system** * **Know the functions of the organs in the human digestive system** * **Identify and know the different types of human teeth** * **Know the functions of different human teeth** * **Use and construct food chains to identify producers, predators and prey**   **Living things and their habitats**  *National curriculum objectives*  -Recognise that living things can be grouped in a variety of ways  -Explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment  -Recognise that environments can change and that this can sometimes pose dangers to living things.   * **Use classification keys to group, identify and name living things** * **Know how changes to an environment could endanger living things** | |
| **Computing** | *National curriculum objectives*  **Safe Use**  -Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact   * **Recognise acceptable and unacceptable behaviour using technology**   PURPLE MASH  *I have a good understanding of the online safety rules we learn at school. (4.2 & across curriculum)*  *I can demonstrate how to use a few different online services safely. (4.2 & across curriculum)*  *I know I have a right to privacy both on and offline.*  *(4.2 & across curriculum)*  *I recognise that my wellbeing can be affected by how I use technology.*  *(4.2 & across curriculum)*  *I can report with ease any concerns with content and*  *contact online and know immediate strategies to keep*  *safe. (4.2 & across curriculum)*  ***Vocabulary – Attachments, citation, cookies, copyright, plagiarism, malware, phishing, report, SMART rules, spam, virus)***  **Coding**  -Design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts  -Use sequence, selection, and repetition in programs; work with variables and various forms of input and output  -Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs  Rising star books 1 between 2 (stop after coding)  PURPLE MASH  4.1 – coding  *I can turn a real-life situation to solve into an*  *algorithm, using a design that shows how I can*  *accomplish this in code. (4.1, 4.5)*  *I can use repetition in my code. For example,*  *using a loop that continues until a condition is*  *met such as the correct answer being entered.*  *(4.1)*  *I can use timers within my program designs more*  *accurately to create repetition effects. For*  *example, I can create a counting machine. (4.1)*  *I can use selection (decision) in my*  *programming. For example, using an ‘if*  *statement’ for a question being asked and the*  *program takes one of two paths. (4.1)*  *I can use variables within my program and know*  *how to change the value of variables. (4.1)*  *I can use the user inputs and output features*  *within my program, such as ‘Print to screen’. (4.1)*  *I can identify errors in my code by using different*  *methods, such as steeping through lines of code*  *and fixing them. (4.1)*  *I can read programs that contain several steps*  *and predict the outcomes with increasing*  *accuracy. (4.1, 4.5)*  *I can create and improve my solutions*  *to a problem based on feedback. For*  *example, create a program using*  *2Code. (4.1, 4.2)*  *I can review solutions that others have*  *created, using a checklist of criteria.*  *(4.1, 4.2)*  ***Vocabulary – Action, Algorithm, Command,***  ***Co-ordinates, de-bugging, execute, input, output, event, nest, objects, repeat until, variable.*** | | *National curriculum objectives*  **Safe Use**  -Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.   * **Recognise acceptable and unacceptable behaviour using technology**   PURPLE MASH  *I have a good understanding of the online safety rules we learn at school. (4.2 & across curriculum)*  *I can demonstrate how to use a few different online services safely. (4.2 & across curriculum)*  *I know I have a right to privacy both on and offline.*  *(4.2 & across curriculum)*  *I recognise that my wellbeing can be affected by how I use technology.*  *(4.2 & across curriculum)*  *I can report with ease any concerns with content and*  *contact online and know immediate strategies to keep*  *safe. (4.2 & across curriculum)*  **Search Engines**  -Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital content  -Understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration  **4.7 – Search engines**  *I understand the purpose of a search*  *engine and the main features within it.*  *(4.7)*  *I can look at information on a webpage*  *and make predictions about the*  *accuracy of information contained*  *within it. (4.7)*  ***Vocabulary – key woods, reliability, searches, results page, internet***  **4.8 – Hardware**  *I recognise the main component parts of*  *hardware which allow computers to join and form*  *a network. (4.8)*  *I understand that network and communication*  *components can be found in many different devices*  *which allow them to join the internet. (4.2, 4.7, 4.8)*  ***Vocabulary – Components, hard drive, input, output, network card, software***  **Spring 2**  **Using programs**  -Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information  PURPLE MASH  4.3 Spreadsheets  ***Vocabulary – Column, chart, equal to tool, format cell, formula, resize, timer, totals*** | *National curriculum objectives*  **Safe Use**  -Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact.   * **Recognise acceptable and unacceptable behaviour using technology**   PURPLE MASH  *I have a good understanding of the online safety rules we learn at school. (4.2 & across curriculum)*  *I can demonstrate how to use a few different online services safely. (4.2 & across curriculum)*  *I know I have a right to privacy both on and offline.*  *(4.2 & across curriculum)*  *I recognise that my wellbeing can be affected by how I use technology.*  *(4.2 & across curriculum)*  *I can report with ease any concerns with content and*  *contact online and know immediate strategies to keep*  *safe. (4.2 & across curriculum)*  **Using programs**  -Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information  PURPLE MASH  4.4 – Writing for audiences – Newspaper report  ***Vocabulary – font, format***  4.6 – animation  ***Vocabulary – Animation, Stop motion, Pause, onion skinning, frame, frames per second***  4.9 – making music (additional  *I can share digital content using a*  *variety of applications such as: 2Blog,*  *2Email and Display Boards. (Across units)*) | |
| **Geog** | **Autumn**  **Place knowledge - European country (Greece)**   * Locate Greece, using a map. * Understand geographical similarities and differences through the study of human and physical geography of a European country. * Have knowledge of some of the 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 in a European country. * Know the names of major European capitals. * Use maps and globes to locate the equator, the Tropics of Cancer and Capricorn and the Greenwich Meridian   Key Vocabulary   * Euro * Settlement * Trade | | **Spring**  **Location knowledge & Human and Physical Geography - Rivers**   * Know where the main mountain regions/ physical features are in the UK * Be aware of the world’s highest mountain/longest rivers * Identify mountains in an atlas * Identify rivers on an atlas   Key Vocabulary   * **Mouth** * **Estuary** * **Flood** * **Meander** * **Flood** * **Summit** * **Mountain range** | **Summer**  **Skills and fieldwork**   * Use fieldwork to observe and record present human and physical features in the local area. * Use maps, atlases, globes and digital/computer mapping to locate countries and describe some different features.   Key Vocabulary   * **Revolution** * **Mining** * **Rural** * **Industrial** * **Population** * **Agriculture** | |
| **Hist** | **The Ancient Greeks**  *National curriculum objectives*  -A study of Ancient Greece – a study of Greek life and achievements and their influence on the western world  -Understand historical concepts such as continuity and change, cause and consequence, similarity, difference and significance   * Know that Greece is made up of many Islands * Know that Ancient Greece came before the Roman Empire * Two important cities in ancient Greece were Sparta and Athens * To know the Olympic games originated in Greece and to see how it has developed * The ruler of the 12 Greek Gods was Zeus * Democracy is part of the Greek legacy * Almost every Greek city had a theatre * The three orders for Greek architecture were Corinthian, Ionic and Doric.   Vocabulary  Island  Ancient  Empire  Legacy  Ruler  Democracy  Amphitheatre  Architecture  Philosopher | |  | **the Industrial Revolution**  *National curriculum objectives*  -A Study of local history  -A study of an aspect or theme in British history that extends pupils’ chronological knowledge beyond 1066  -Understand historical concepts such as continuity and change, cause and consequence, similarity, difference and significance   * Know what is meant by the Industrial Revolution * Know how the Industrial Revolution affected Salford and Greater Manchester * Know how historic items and artefacts from the Victorian era have been used to help build up a picture of life in the past * The rich and poor led very different lives * Know about the impact that the Victorian history had on the world * The Bridgewater canal played a vital role in Salford during the Industrial revolution transporting coal * Queen Victoria visited Worsley in 1851, traveling via the Bridgewater canal   Vocabulary  Poor Law  Industrial  Revolution  Peasantry  Steam Engine  Invention  Machinery  Mills  Coal Mining  Bridgewater Canal  Population  Monarch  Orphan  Workhouse  Reign | |
| **D.T** | | * **(Links to Science - Electricity)** * **Links scientific knowledge by using lights, switches or buzzers** * **Use electrical systems to enhance the quality of a product** | TBC  *National curriculum objectives*  **Design**  -Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups -Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design  **Make**  -Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately  -Select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities  **Evaluate**  -Investigate and analyse a range of existing products  -Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work  -Understand how key events and individuals in design and technology have helped shape the world  **Technical knowledge**  -Apply their understanding of how to strengthen, stiffen and reinforce more complex structures  -Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]  -Understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors]  -Apply their understanding of computing to program, monitor and control their products.   * **Use ideas from other people when designing** * **Produce a plan and explain it** * **Persevere and adapt work when original ideas do not work** * **Communicate ideas in a range of ways, including by sketches and drawings which are annotated** * **Know which tools to use for a particular task and show knowledge of handling the tool** * **Know which material Is likely to give the best outcome** * **Measure accurately** * **Evaluate and suggest improvements for designs** * **Evaluate products for both their purpose and appearance** * **Explain how the original design has been improved** * **Present a product in an interesting way** | | **TBC**  *National curriculum objectives*  **Cooking and Nutrition**  -Understand and apply the principles of a healthy and varied diet  -Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques  -Understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.   * **Know how to be both hygienic and safe when using food** * **Bring a creative element to the food product being designed** * **Use IT where appropriate to add to the quality of the product** |
| **Art** | | **TBC**  *National curriculum objectives*  -To create sketch books to record their observations and use them to review and revisit ideas  -To improve their mastery of art and design techniques, including drawing, painting and sculpture with a range of materials [for example, pencil, charcoal, paint, clay]  -Learn about great artists, architects and designers in history.   * **Use sketchbooks to experiment with different texture** * **Know how to print onto different materials using at least four colours** | **TBC**  *National curriculum objectives*  -To create sketch books to record their observations and use them to review and revisit ideas  -To improve their mastery of art and design techniques, including drawing, painting and sculpture with a range of materials [for example, pencil, charcoal, paint, clay]  -Learn about great artists, architects and designers in history.   * **Use sketchbooks to help create facial expressions.** * **Know how to show facial expressions and body language in sketches and paintings** * **Know how to use marks and lines to show texture in art.** * **Know how to use line, tone, shape and colour to represent figures and forms in movement** * **Know how to sculpt clay and other mouldable materials** | | ***TBC***  *National curriculum objectives*  -To create sketch books to record their observations and use them to review and revisit ideas  -To improve their mastery of art and design techniques, including drawing, painting and sculpture with a range of materials [for example, pencil, charcoal, paint, clay]  -Learn about great artists, architects and designers in history.   * **Know how to show reflections** * **Use photographs to help create reflections** * **Know how to integrate digital images into artwork.** |
| **P.E** | | **Swimming**  *National curriculum objectives*  -Develop flexibility, strength, technique, control and balance [for example, through athletics and gymnastics]  **Gymnastics**  *National curriculum objectives*  -Develop flexibility, strength, technique, control and balance [for example, through athletics and gymnastics]  -Compare their performances with previous ones and demonstrate improvement to achieve their personal be  -Perform dances using a range of movement patterns   * **Move in a controlled way** * **Include change of speed and direction in a sequence** * **Work with a partner to create, repeat and improve a sequence with at least three phases** * **Provide support and advice to others** * **Be prepared to listen to the ideas of others** | **Dance**  *National curriculum objectives*  -Develop flexibility, strength, technique, control and balance [for example, through athletics and gymnastics]  -Compare their performances with previous ones and demonstrate improvement to achieve their personal be  -Perform dances using a range of movement patterns   * **Take the lead when working with a partner or a group** * **Use dance to communicate an idea** * **Provide support and advice to others** * **Be prepared to listen to the ideas of others**   **Athletics**  *National curriculum objectives*  -Develop flexibility, strength, technique, control and balance [for example, through athletics and gymnastics]  Compare their performances with previous ones and demonstrate improvement to achieve their personal be  -Perform dances using a range of movement patterns  -Develop flexibility, strength, technique, control and balance [for example, through athletics and gymnastics]  -Use running, jumping, throwing and catching in isolation and in combination   * **Sprint over a short distance and show stamina when running** * **Jump in different ways** * **Throw in different ways and hit a target, when needed** | | **Competitive games**  *National curriculum objectives*  -Play competitive games, modified where appropriate [for example, badminton, basketball, cricket, football, hockey, netball, rounders and tennis], and apply basic principles suitable for attacking and defending  -Take part in outdoor and adventurous activity challenges both individually and within a team  -Use running, jumping, throwing and catching in isolation and in combination  -Compare their performances with previous ones and demonstrate improvement to achieve their personal be   * **Throw and catch accurately with one hand** * **Hit a ball accurately with control** * **Vary tactics and adapt skills depending on what is happening in a game** * **Follow a map in a (more demanding) familiar context** * **Follow a route within a time limit** |

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| **R.E** | **What can we learn from religions?**  - Give examples of rules for living from religions and suggest ways in which they might help believers with difficult decisions (B1).  Make connections between stories of temptation and why people can find it difficult to be good  (A2).  -Give examples of ways in which some inspirational people have been guided by their religion (B1).  -Discuss their own and others’ ideas about how  people decide right and wrong (C3). | **Why are festivals important to some religions?**  -Make connections between stories, symbols and beliefs with what happens in at least two festivals (A2).  -Ask questions and give ideas about what matters most to believers in festivals (e.g. Easter, Eid) (B2).  -Identify similarities and differences in the way festivals are celebrated within and between religions (A3).  -Explore and suggest ideas about what is worth celebrating and remembering in religious communities and in their own lives (C1).  **What does it mean to be a Hindu in Britain today?**  -Describe some examples of what Hindus do to show their faith, and make connections with some Hindu beliefs and teachings about aims and duties in life (A1).  -Describe some ways in which Hindus express their faith through puja, aarti and bhajans (A2).  -Suggest at least two reasons why being a Hindu is a good thing in Britain today, and two reasons why it might be hard sometimes (B2).  -Discuss links between the actions of Hindus in helping others and ways in which people of other faiths and beliefs, including pupils themselves, help others (C2). | **Why do some people think life is a journey?**  -Suggest why some people see life as a  journey and identify some of the key  milestones on this journey (A2).  - Describe what happens in Christian, Jewish, and/or Hindu ceremonies of commitment and say what these rituals mean (A3).  - Suggest reasons why marking the milestone of life are important to Christians, Hindus and/or Jewish people (B2).  - Link up some questions and answers about how believers show commitment with their own ideas about community, belonging and belief (C1).  **Why is Jesus inspiring to some people?**  -Make connections between some of  Jesus’ teachings and the way Christians live today (A1).  -Describe how Christians celebrate Holy Week and Easter Sunday (A1).  -Identify the most important parts of Easter for Christians and say why they are important (B1).  -Give simple definitions of some key Christian terms (e.g. gospel, incarnation, salvation) and illustrate them with events from Holy Week  and Easter (A2). |
| **Languages** | *National curriculum objectives*  **Ourselves**  **Celebrations**  -Listen attentively to spoken language and show understanding by joining in and responding  -Explore the patterns and sounds of language through songs and rhymes and link the spelling, sound and meaning of words  -Engage in conversations; ask and answer questions; express opinions and respond to those of others; seek clarification and help\*  -Speak in sentences, using familiar vocabulary, phrases and basic language structures  - Develop accurate pronunciation and intonation so that others understand when they are reading aloud or using familiar words and phrases\*  - Present ideas and information orally to a range of audiences\*  -Read carefully and show understanding of words, phrases and simple writing  -Appreciate stories, songs, poems and rhymes in the language  -Broaden their vocabulary and develop their ability to understand new words that are introduced into familiar written material, including through using a dictionary  -Write phrases from memory, and adapt these to create new sentences, to express ideas clearly  - Describe people, places, things and actions orally\* and in writing understand basic grammar appropriate to the language being studied, including (where relevant): feminine, masculine and neuter forms and the conjugation of high-frequency verbs; key features and patterns of the language; how to apply these, for instance, to build sentences; and how these differ from or are similar to English.   * **Name and describe people, a place and an object** * **Give response using a short phrase** * **Write phrases from memory** * **Write 2-3 short sentences on a familiar topic** | **School**  **Weather**  -Listen attentively to spoken language and show understanding by joining in and responding  -Explore the patterns and sounds of language through songs and rhymes and link the spelling, sound and meaning of words  -Engage in conversations; ask and answer questions; express opinions and respond to those of others; seek clarification and help\*  -Speak in sentences, using familiar vocabulary, phrases and basic language structures  - Develop accurate pronunciation and intonation so that others understand when they are reading aloud or using familiar words and phrases\*  - Present ideas and information orally to a range of audiences\*  -Read carefully and show understanding of words, phrases and simple writing  -Appreciate stories, songs, poems and rhymes in the language  -Broaden their vocabulary and develop their ability to understand new words that are introduced into familiar written material, including through using a dictionary  -Write phrases from memory, and adapt these to create new sentences, to express ideas clearly   * - Describe people, places, things and actions orally\* and in writing understand basic grammar appropriate to the language being studied, including (where relevant): feminine, masculine and neuter forms and the conjugation of high-frequency verbs; key features and patterns of the language; how to apply these, for instance, to build sentences; and how these differ from or are similar to English. * **Read and understand a short passage** * **Explain the main points in a short passage** * **Read a short passage independently** * **Use a bilingual dictionary or glossary to look up new words** * **Start to speak, using a full sentence** | **Hobbies**  **Holidays**  -Listen attentively to spoken language and show understanding by joining in and responding  -Explore the patterns and sounds of language through songs and rhymes and link the spelling, sound and meaning of words  -Engage in conversations; ask and answer questions; express opinions and respond to those of others; seek clarification and help\*  -Speak in sentences, using familiar vocabulary, phrases and basic language structures  - Develop accurate pronunciation and intonation so that others understand when they are reading aloud or using familiar words and phrases\*  - Present ideas and information orally to a range of audiences\*  -Read carefully and show understanding of words, phrases and simple writing  -Appreciate stories, songs, poems and rhymes in the language  -Broaden their vocabulary and develop their ability to understand new words that are introduced into familiar written material, including through using a dictionary  -Write phrases from memory, and adapt these to create new sentences, to express ideas clearly  - Describe people, places, things and actions orally\* and in writing understand basic grammar appropriate to the language being studied, including (where relevant): feminine, masculine and neuter forms and the conjugation of high-frequency verbs; key features and patterns of the language; how to apply these, for instance, to build sentences; and how these differ from or are similar to English.   * **Write about what they like/dislike about a familiar topic** * **Have a short conversation, saying 3 to 4 things** |
| **Music** | *National curriculum objectives*  -Play and perform in solo and ensemble contexts, using their voices and playing musical instruments with increasing accuracy, fluency, control and expression  - Improvise and compose music for a range of purposes using the inter-related dimensions of music  - Listen with attention to detail and recall sounds with increasing aural memory  -Use and understand staff and other musical notations  -Appreciate and understand a wide range of high-quality live and recorded music drawn from different traditions and from great composers and musicians  - Develop an understanding of the history of music   * **Sing songs from memory with accurate pitch** * **Use notation to record compositions in a small group of individually** * **Explain why silence is often needed in music and explain what effect it has** * **Use notation to record and interpret sequences of pitches** * **Identify and describe the different purposes of music** * **Begin to identify the style of work of Beethoven, Mozart and Elgar** | | |