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| Topic Title It’s getting hot in here! | STEM  **What does it mean if something is hot?** - Is heat the same as temperature? Look at a concept cartoon and a book about heat. Establish prior knowledge and understanding of what heat and temperature mean.  **What is heat? Is heat visible?** – children explore what heat is in scientific terms and conduct an experiment that makes heat energy visible.  **What is the temperature?** - What does a thermometer do? – children explore how to measure heat with a thermometer. They examine a thermometer and gain an understanding of how to read the degrees.  **How can heat be created?** – Children explore how heat is produced via friction, electricity and burning. Pupils observe various stations and record how heat is produced at each.  **How does heat move? -** What is conduction? What materials are good conductors? Children explore how heat moves by discussing three types of heat transfer – conduction, convection and radiation. Children focus on conduction through an experiment to determine what material (wood, metal or plastic) makes a good conductor.  **What are insulators? -** What materials are good insulators? – children examine what an insulator does and investigate which materials make good insulators by conducting an experiment to try and keep the heat in a warm cup of water.  STEM project – **Design, Make, Evaluate, Technical Knowledge**  **Vocabulary -** heat, energy, transfer, conduction, convection, radiation, conductor, insulator, temperature, thermometer, friction, electricity, burning |
| Summer  Cycle A Topic 4  Year 3/4 |

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| Maths | English |
| **White Rose Maths Scheme**  **Bold are Y4 objectives**  Measures – Length  Measure, compare, add and subtract: lengths (m/cm/mm).  Measure the perimeter of simple 2D shapes.  **Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres**  Continue to measure using the appropriate tools and units, progressing to using a wider range of measures, including comparing and using mixed and simple equivalents of mixed units.  **Convert between different units of measure eg kilometre to metre**  Time  Tell and write the time from an analogue clock, including using Roman numerals and 12-hour and 24-hour clocks.  **Read, write & convert time between analogue and digital 12 and 24 hour clocks.**  Estimate and read time with increasing accuracy to the nearest minute.  Record and compare time in terms of seconds, minutes and hours.  Convert between different units of measure eg hour to minute.  Use vocabulary such as o’clock, a.m./p.m., morning, afternoon, noon and midnight.  Know the number of seconds in a minute and the number of days in each month, year and leap year.  Compare durations of events (for example to calculate the time taken by particular events or  tasks). **Solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days**  Geometry  Recognise angles as a property of shape or a description of a turn.  Identify right angles, recognise that two right angles make a half-turn, three make three quarters of a turn and four a complete turn;  identify whether angles are greater than or less than a right angle.  **Identify acute and obtuse angles and compare and order angles up to two right angles by size.**  Identify horizontal and vertical lines and pairs of perpendicular and parallel lines.  **Identify lines of symmetry in 2D shapes presented in different orientations.**  **Complete an simple symmetric figure with respect to a specific line of symmetry**.  Draw 2-D shapes  **Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes.**  Make 3-D shapes using modelling materials. Recognise 3-D shapes in different orientations and describe them  Measures: volume and  capacity (Y3)  Measure, compare, add and subtract: mass (kg/g); volume/capacity (l/ml).  **Co-ordinates (Y4)**  **Describe positions on a 2D grid as coordinates in the first quadrant.**  **Describe movements between positions as translations of a given unit to the left/ right and up/down.**  **Plot specified points and draw sides to complete a given polygon.**  Statistics  Interpret and present data using bar charts, pictograms and tables.  **Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs.**  Solve one-step and twostep questions (for example, ‘How many more?’ and ‘How many fewer?’) using information presented in scaled bar charts and pictograms and tables.  **Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and**  **other graphs** | **Spelling**  **Year 3**  Set 1: Words ending in 'ly', Set 2: Words ending in 'sure' and 'ture', Set 3: Words ending in 'sion' as /zhun/,Set 4: Words ending in 'ous', Set 5: Words ending in 'ous', Set 6: Words ending in 'tion' and ‘cian’, Set 7: Words ending in ‘ssion’ as /shun/, Set 8: Words ending in ‘ssion’ and ‘sion’ as /shun/, Set 9: Words containing ‘ch’ as /k/, Set 10: Revision  **Year 4**  Set 1: Word list 6, Set 2: Word list 7, Set 3: Words containing 'sion' as /zhun/, Set 4: Words ending in ‘ous’, Set 5: Words ending in ‘ation’, Set 6: Words ending in ‘tion’, Set 7: Words ending with ‘ssion’ as /shun/, Set 8: Words ending with ‘ssion’ and ‘sion’ as /shun/, Set 9: Homophones 3, Set 10: Word list 8, Set 11: Revision  **Reading** develop positive attitudes to reading and understanding of what they read by: listening to and discussing a wide range of fiction, poetry, plays, non-fiction and reference books  , showing understanding through intonation, tone, volume and action, discussing words and phrases that capture the reader’s interest and imagination, recognising some different forms of poetry [for example, free verse, narrative poetry] understand what they read, in books they can read independently, by: checking that the text makes sense to them, discussing their understanding and explaining the meaning of words in context, asking questions to improve their understanding of a text drawing inferences such as inferring characters’ feelings, thoughts and motives from their actions, and justifying inferences with evidence, predicting what might happen from details stated and implied, identifying main ideas drawn from more than one paragraph and summarising these, identifying how language, structure, and presentation contribute to meaning, retrieve and record information from non-fiction, participate in discussion about both books that are read to them and those they can read for themselves, taking turns and listening to what others say  Twice weekly guided reading, once weekly individual reading,  Silent sustained reading daily. Links to topic if appropriate.  **Writing**  plan their writing by: discussing writing similar to that which they are planning to write in order to understand and learn from its structure, vocabulary and grammar, discussing and recording ideas, draft and write by: composing and rehearsing sentences orally (including dialogue), progressively building a varied and rich vocabulary and an increasing range of sentence structures, organising paragraphs around a theme, in narratives, creating settings, characters and plot, in non-narrative material, using simple organisational devices, evaluate and edit by: assessing the effectiveness of their own and others’ writing and suggesting improvements, proposing changes to grammar and vocabulary to improve consistency, including the accurate use of pronouns in sentences, proof-read for spelling and punctuation errors, read aloud their own writing, to a group or the whole class, using appropriate intonation and controlling the tone and volume so that the meaning is clear.  Write a descriptive setting for a Lowry seascape painting  Poetry – From a railway carriage  Look at the famous adverts created by various rail networks encouraging people to visit coastal towns for their holidays.  Design a poster for the railways  Debate the impact of tourism on coastal towns  Consider why beach holidays are still as popular today.  Flotsam by David Weisner  Non-fiction – marine wildlife – descriptions, non-chronological reports  Persuasive arguments for looking after the seaside/sea  **Grammar**  extending the range of sentences with more than one clause by using a wider range of conjunctions, including when, if, because, although, using the present perfect form of verbs in contrast to the past tense, choosing nouns or pronouns appropriately for clarity and cohesion and to avoid repetition, using conjunctions, adverbs and prepositions to express time and cause, using fronted adverbials  the perfect form of verbs – It has rained all week, I have packed my suitcase  suffixes ment, ness, er, ship, ation  singular and plurals  determiners  possessive pronouns |

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| Science | Geography | History |
| **Working scientifically**  * asking relevant questions and using different types of scientific enquiries to answer them * setting up simple practical enquiries, comparative and fair tests * making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers * gathering, recording, classifying and presenting data in a variety of ways to help in answering questions * recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables * reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions * using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions * identifying differences, similarities or changes related to simple scientific ideas and processes * using straightforward scientific evidence to answer questions or to support their findings.  **Electricity**  * 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   **Vocabulary –** *electricity, electrical appliance/device, mains, plug, electrical circuit, complete circuit, component, cell, battery, positive, negative, connect/connections, loose connection, short circuit, crocodile clip, switch, buzzer, motor, conductor, insulator, metal, non-metal, symbol*   * **Living things and their habitats** * explore and use classification keys to help group, identify and name a variety of living things in a seaside environment * recognise that environments can change and that this can sometimes pose dangers to living things | **Locational knowledge**  geographical regions and their identifying human and physical characteristics, key topographical features (including coasts)  **Place knowledge**  understand geographical similarities and differences through the study of human and physical geography of a region of the United Kingdom – seaside location of Whitby  **Human and physical geography**  **Physical geography**  To describe and understand key aspects of physical geography, including coasts, cliffs and beaches  **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  **Geographical skills and fieldwork**  use maps, atlases, globes and digital/computer mapping to locate countries and describe features studied  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  Coast vocabulary and images 3-D geography images | **To study an aspect or theme in British history that extends pupils’ chronological knowledge beyond 1066, for example; a significant turning point in British history such as the first railways**.  To address and sometimes devise historically valid questions about change, cause, similarity and difference and significance.  To construct informed responses that involve thoughtful selection and organisation of relevant historical information.  To understand that our knowledge of the past is constructed from a range of sources.  Discover how the Victorian era was a time of great change and in particular how the coming of railways impacted on coastal towns.  The Victorian Seaside Holiday |

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| Art and Design | Design and Technology | Music |
| **To know how art and design reflect and shape our history, and contribute to the culture, creativity and wealth of our nation.**  Arts mark project for end of year exhibition-thinking about any Lowry influence – industrial, portraits or seascapes – make your own painting on canvas for our art exhibition  **to create sketch books to record their observations and use them to review and revisit ideas**  Drawings of seaside pictures  **to improve their mastery of art and design techniques, including drawing, painting and sculpture with a range of materials**  Make a seaside picture using different media  **about great artists, architects and designers in history.**  Continue to study the artist Lowry looking at his sea-scapes. |  | Charanga – Blackbird  Listen and Appraise the song Blackbird and other songs by The Beatles: ● Blackbird by The Beatles ● Yellow Submarine by The Beatles ● Hey Jude by The Beatles ● Can’t Buy Me Love by The Beatles ● Yesterday by The Beatles ● Let It Be by The Beatles  **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.** |

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| Languages | Physical Education | Outdoor Learning |
| French  **Our School/Time**  **Speaking and listening**   * listen and respond to simple instructions * listen and respond verbally to every day phrases * name and describe people, a place and an object * have a short conversation, saying 3 to 4 things * give response using a short phrase * start to speak, using a full sentence * listen to and join in with a simple song   **Reading**   * read and understand a short passage using familiar language * explain the main points in a short passage * read a passage independently * use a bilingual dictionary or glossary to look up new words   **Writing**   * write phrases from memory * write 2-3 short sentences on a familiar topic * write what they like/dislike about a familiar topic | **Tri-Golf**   * take part in outdoor and adventurous activity challenges both individually and within a team * play competitive games, modified where appropriate and apply basic principles suitable for attacking and defending   **BSP - George**  **Cricket**   * use running, jumping, throwing and catching in isolation and in combination * play competitive games, modified where appropriate and apply basic principles suitable for attacking and defending   **Fitness/**  **Orienteering**   * take part in outdoor and adventurous activity challenges both individually and within a team * compare their performances with previous ones and demonstrate improvement to achieve their personal best |  |

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| PSHE/RSE | Religious Education | Computing |
| **Being Healthy**  Core theme: Health and Wellbeing.    H1. Identifying what affects their physical/ mental health.  H2. Understanding what a balanced, healthy lifestyle means.  H3. Understanding what might influence our choices.  H4. Recognising that habits can have both positive/negative effects on a healthy lifestyle.  H6. Explaining what constitutes a healthy diet.  H7. Recognising opportunities to be physically active.  H8. Understanding routines that support good quality sleep.  H9. Identifying hygiene routines that can limit the spread of infection.  H11. Talking about how to maintain good mouth hygiene.  H12. Understanding the benefits/risks of sun exposure.  H13. Identify strategies for managing/balancing time online/offline.  H16. Recognising behaviours that support good mental health.  **Changes**  Core themes: Health and Wellbeing.    H17. Recognising that feelings can change over time, and range in intensity.  H18. Identifying the everyday things that affect feelings, and the importance of expressing how we feel.  H19. Using a varied vocabulary when talking about feelings.  H21. Recognising the signs when someone may be struggling and understand how to seek support.  H23. Discussing change and loss, and how these can affect feelings, thoughts and behaviours.  H24. Identifying strategies for dealing with emotions, challenges and change.  H36. Identifying strategies to manage transitions between classes and key stages. | **Why do people pray?**  Describe the practice of prayer in the  religions studied (A2).  Make connections between what people believe about prayer and what they do when they pray (A3).  Describe ways in which prayer can comfort and challenge believers  (B2).  Describe and comment on similarities and differences between how Christians, Muslims and Hindus pray (B3) | **Data and Information**  Data logging   * use sequence, selection, and repetition in programs; work with variables and various forms of input and output * 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   **Online Safety** – ongoing  Assemblies, PSHE, Safer Internet Day etc |