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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.Group project based on this learning  |
| Year 3/4Topic 4Cycle A |



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| Maths | English |
| **Bold are Y4 objectives**Measures – LengthMeasure, 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**TimeTell 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 ortasks). **Solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days**GeometryRecognise 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 themMeasures: volume andcapacity (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.**StatisticsInterpret 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 paintingPoetry – From a railway carriageLook at the famous adverts created by various rail networks encouraging people to visit coastal towns for their holidays. Design a poster for the railwaysDebate the impact of tourism on coastal townsConsider why beach holidays are still as popular today.Flotsam by David WeisnerNon-fiction – marine wildlife – descriptions, non-chronological reportsPersuasive 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 adverbialsthe perfect form of verbs – It has rained all week, I have packed my suitcasesuffixes ment, ness, er, ship, ationsingular and pluralsdeterminerspossessive pronouns |

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| Science | Geography | History |
| Marine lifeTo begin to identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.To construct and interpret a variety of food chains, including producers, predators, and prey. | To describe and understand key aspects of physical geography, including coasts, cliffs and beachesTo understand the processes that give rise to key physical and human geographical features of the world, how these are interdependent and how they bring about spatial variation and change over time.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. |

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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.Lowry sea scapesArts 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 |  | Charanga – BlackbirdListen 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 Beatles1. Musical Activities - learn and/or build on your knowledge and understanding about the interrelated dimensions of music through: a. Warm-up Games (including vocal warm-ups) b. Flexible Games (optional extension work) c. Learn to Sing the Song d. Play Instruments with the Song e. Improvise with the Song f. Compose with the Song 2. Perform the Song - perform and share your learning as you progress through the Unit of Work. |

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| Languages | Physical Education | Outdoor Learning |
|  | Fundamentals – Bolsover District SportsPace ball |  |

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| PSHE/RSE | Religious Education | Computing/E-Safety |
| **Bullying Matters****R7** - Understanding that their actions affectthemselves and others.**R11** - Identifying the importance of workingtowards shared goals.**R12** - Developing strategies for getting support forthemselves or for others at risk.**R13** - Identifying that differences and similaritiesarise from a number of factors.**R14, L6** - Understanding the nature andconsequences of discrimination, teasing,bullying and aggressive behaviour (includingcyberbullying, prejudice-based language,‘trolling’).**R18** - Knowing how to recognise bullying andabuse in all its forms. |  | Use search technologies effectively, appreciate how results are selected and ranked, and be discerning in evaluating digital contentTo 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. |