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| Make it Spark!Tomorrow’s World | **STEM Unit Overview**Make it Spark! - Electricity and circuits from a range of energy sourcesWhat non-renewable energy sources are used to generate electricity? How do fossil fuels generate electricity?What renewable energy sources are used to generate electricity? How do wind and water generate electricity?How does solar energy generate electricity? How can the flow of electricity be shown in a circuit diagram?What materials can be used to make an electrical circuit? What materials are conductors and insulators of electricity?What is a switch and how does it work? How is it shown in a circuit diagram?How does a lightbulb work? What are the features of light bulbs? **STEM Group Project**Buzz of Electricity - Pupils apply their knowledge of circuits to design and create buzzers to be used in a quiz show, along with a set of quiz questions to be used digitally and displayed on the whiteboard. |  |
| Summer – Cycle AYear 5/6 |

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| Maths | English |
| White Rose Scheme**Statistics**Year 5* *Solve comparison, sum and difference problems using information presented in a line graph*
* *Complete, read and interpret information in tables, including timetables.*

Year 6* *Interpret and construct pie charts and line graphs and use these to solve problems*

*Calculate and interpret the mean as an average*Consolidate number (place value, four operations and fractions) to make sure learning is secure ready for the next year. | **Reading - Word Reading*** *Apply their growing knowledge of root words, prefixes and suffixes both to read aloud and to understand the meaning of new words that they meet.*

**Reading - Comprehension*** *Maintain positive attitudes to reading and understanding of what they read by: continuing to read and discuss an increasingly wide range of fiction, poetry, plays, non-fiction and reference books or textbooks, reading books that are structured in different ways and reading for a range of purposes, increasing their familiarity with a wide range of books, including myths, legends and traditional stories, modern fiction, fiction from our literary heritage, and books from other cultures and traditions, recommending books that they have read to their peers, giving reasons for their choices, identifying and discussing themes and conventions in and across a wide range of writing, making comparisons within and across books, learning a wider range of poetry by heart and preparing poems and plays to read aloud and to perform, showing understanding through intonation, tone and volume so that the meaning is clear to an audience.*
* *Understand what they read by: checking that the book makes sense to them, discussing their understanding and exploring the meaning of words in context, asking questions to improve their understanding, 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, summarising the main ideas drawn from more than one paragraph, identifying key details that support the main ideas and identifying how language, structure and presentation contribute to meaning.*
* *Discuss and evaluate how authors use language, including figurative language, considering the impact on the reader.*
* *Distinguish between statements of fact and opinion.*
* *Retrieve, record and present information from non-fiction.*
* *Participate in discussions about books that are read to them and those they can read for themselves, building on their own and others’ ideas and challenging views courteously.*
* *Explain and discuss their understanding of what they have read, including through formal presentations and debates, maintaining a focus on the topic and using notes where necessary.*
* *Provide reasoned justifications for their views.*

**Writing - Transcription*** *Use further prefixes and suffixes and understand the guidance for adding them.*
* *Spell some words with ‘silent’ letters.*
* *Continue to distinguish between homophones and other words which are often confused.*
* *Use knowledge of morphology and etymology in spelling and understand that the spelling of some words needs to be learnt specifically.*
* *Use dictionaries to check the spelling and meaning of words.*
* *Use the first three or four letters of a word to check spelling, meaning or both of these in a dictionary.*
* *Use a thesaurus.*

**Writing - Composition*** *Plan their writing.*
* *Draft and write.*
* *Evaluate and edit.*
* *Proof-read for spelling and punctuation errors.*
* *Perform their own compositions, using appropriate intonation, volume, and movement so that meaning is clear.*

**Writing - Vocabulary, Grammar & Punctuation*** *Develop their understanding of the concepts set out in English Appendix 2 by: recognising vocabulary and structures that are appropriate for formal speech and writing, including subjunctive forms, using passive verbs to affect the presentation of information in a sentence, using the perfect form of verbs to mark relationships of time and cause, using expanded noun phrases to convey complicated information concisely, using modal verbs or adverbs to indicate degrees of possibility, using relative clauses beginning with who, which, where, when, whose, that or with an implied (i.e. omitted) relative pronoun*
* *Indicate grammatical and other features by: using commas to clarify meaning or avoid ambiguity in writing, using hyphens to avoid ambiguity, using brackets, dashes or commas to indicate parenthesis, using semi-colons, colons or dashes to mark boundaries between independent clauses, using a colon to introduce a list, punctuating bullet points consistently*
* *Use and understand the grammatical terminology in English Appendix 2 accurately and appropriately in discussing their writing and reading.*
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| Science | Geography | History |
| **Electricity**Year 6* *Associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit.*
* *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.*
* *Use recognised symbols when representing a simple circuit in a diagram.*

Vocabulary* Circuit, complete circuit, circuit diagram, circuit symbol, cell, battery, bulb, buzzer, motor, switch, voltage.

Working scientifically* Planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary.
* Taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate.
* Recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs.
* Using test results to make predictions to set up further comparative and fair tests.
* Reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and a degree of trust in results, in oral and written forms such as displays and other presentations.
* Identifying scientific evidence that has been used to support or refute ideas or arguments.
 | KS2Human and physical geography * *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.*
 | KS2* *Changes in Britain from the Stone Age to the Iron Age* and beyond.
* *The Roman Empire and its impact on Britain.*

History of technology Where did technology begin, how has it involved into what is available to us now? |

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| Art and Design | Design and Technology | Music |
| KS2* *Create sketch books to record their observations and use them to review and revisit ideas*
* *Improve 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.*
 | Design and create a buzzer wire game using circuits.KS2Design* *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 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 structure.*
* *Understand and use mechanical systems in their products.*
* *Understand and use electrical systems in their products.*
* *Apply their understanding of computing to program, monitor and control their products.*
 | Charanga Music Scheme **Reflect, Rewind and Replay - Year 5 Unit**Learn about the history of music in context, listen to some Western Classical music and place the music from the units you have worked through, in their correct time and space. Consolidate the foundations of the language of music.KS2* *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.*

Learning songs to perform at the end of year performance.  |

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| Languages | Physical Education | Outdoor Learning |
| French**This is France - Year 6 Unit*** Listen and respond to topic vocabulary.
* Answer questions orally using the topic vocabulary.
* Write an answer to a sentence using the topic vocabulary.
* Create sentences independently, using a model sentence.
 | **Monday:**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.*

**Friday:**Swimming* *Swim competently, confidently and proficiently over a distance of at least 25 metres.*
* *Use a range of strokes effectively.*
* *Perform safe self-rescue in different water-based situations.*

Cricket/Rounders* *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.*
 | Outdoor learning as and when throughout the topic.Forest School sessions when timetabled. |

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| PSHE/RSE | Religious Education | Computing/E-Safety |
| Derbyshire Scheme of Work: PSHE Matters**Changes**Core theme: 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 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.
 | Derbyshire Agreed Syllabus 2020 onwards**Unit U2.4: Expressing (Religious forms of expression; questions of identity, diversity and belonging) - Christians, Hindus & Muslims**If God is everywhere, why go to a place of Worship?* Make connections between how believers feel about places of worship in different traditions. (A3)
* Select and describe the most important functions of a place of worship for the community. (B3)
* Give examples of how places of worship support believers in difficult times, explaining why this matters to believers. (B2)
* Present ideas about the importance of people in a place of worship, rather than the place itself. (C1)
 | Teach Computing**Data and Information: Spreadsheets**Information Technology* *Select, use and combine a variety of software on a range of digital devices to design and create a range of programs, system and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information. (F)*

**Programming B: Sensing**Computer Science* *Design, write and debug programs that accomplish specific goals, including controlling or stimulating physical systems. (A)*
* *Solve problems by decomposing them into smaller parts. (A)*
* *Use sequence, selection and repetition in programs. (B)*
* *Work with variables and various forms of input and output. (B)*
* *Understand computer networks (including the internet, World Wide Web), how they can provide multiple services and the opportunities they offer for communication and collaboration. (D)*

Information Technology* *Select, use and combine a variety of software on a range of digital devices to design and create a range of programs, system and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information. (F)*
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