# Year 6 Medium Term Plan - Spring 2

| | Science | Humanities | RE | Computing |
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| Theme | **Theme: Electricity**<br><br>**Key skills:**<br><br>● Planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary.<br><br>● Recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, and bar and line graphs.<br><br>● Using test results to make predictions to set up further comparative and fair tests.<br><br>● Reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of results, in oral and written forms such as displays and other presentations.<br><br>● Identifying scientific evidence that has been used to support or refute ideas or arguments.<br><br>**Key knowledge:**<br><br>● To associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit.<br><br>● To compare and give reasons for variations in how components function, | **Theme: World Climates**<br><br>**Key Skills:**<br>•Use maps, atlases, globes and digital/computer mapping to locate countries and describe features studied<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.<br><br>**Key knowledge:**<br>Describe and understand key aspects of physical geography, including: climate zones, biomes and vegetation belts<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 Antarctic Circle, the 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 | **Theme: Christiantity Easter (Gospel)**<br><br>**Key Skills:**<br>- I can weigh up evidence and different arguments / aspects relevant to the enquiry question and express my answer.<br>- I can explain how the influence people have had on me has affected what I see as important<br><br>**Key knowledge:**<br>- I know the reasons why Cristians might suggest that Christianity is a strong religion today how this could be counteracted (knowledge of festivals, Charities, deeds, Christianity in society<br><br>**key question: Is Christianity still a strong religion 2000 years after Jesus was on Earth?** | Unit 6.9 Spreadsheets (using Microsoft Excel)<br>Key Skills:<br><br>● To know what a spreadsheet looks like.<br>● To navigate and enter data into cells.<br>● To introduce some basic data formulae in Excel for percentages, averages and max and min numbers.<br>● To demonstrate how the use of Excel can save time and effort when performing calculations<br>● To use a spreadsheet to model a real life situation.<br>● To demonstrate how Excel can make complex data clear by manipulating the way it is presented.<br>● To create a variety of graphs in Excel.<br><br>Key Knowledge:<br><br>● To know what a spreadsheet looks like and what it is used for (a software tool used for organising information).<br>● To understand how to |

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| | including the brightness of bulbs, the loudness of buzzers and the on/off position of switches.<br><br>● To use recognised symbols when representing a simple circuit in a diagram.<br><br>**Enrichment:**<br>**Trips: Science Museum - Electrifying Electricity Trail Visitors** | | | use simple data formula s including addition, subtraction, multiplication and division formulae<br>● Understands and can explain what is shown in a SUM cell<br>● To use formulae for percentages, averages, max and min into their spreadsheets. |
| Week 1 | **S.K.L.O:** To use recognised symbols when representing a simple circuit in a diagram.<br><br>**W.S.L.O:** To record using scientific diagrams and labels.<br><br>**Key skills:**<br><br>● Record data and results of increasing complexity using scientific diagrams and labels.<br><br>● To build a basic electrical circuit using cells, wires, bulbs, buzzer and switch. | **L.O:** To locate different climate zones and explore the differences between the Northern and Southern Hemispheres.<br><br>**Key Skills:**<br>Use maps, atlases, globes and digital/computer mapping to locate countries and describe features studied<br><br>**Key knowledge:** Describe and understand key aspects of physical geography, including: climate zones, biomes and vegetation belts | **key question: Is Christianity still a strong religion 2000 years after Jesus was on Earth?**<br><br>**L.O:** To reflect upon how or what can make an impression on our lives.<br><br>**Key Skills:**<br>children need to reflect upon their own ideas.<br>Need to be able to respect each others views and opinions and understand that different people will influencers in their lives.<br><br>**Key knowledge:**<br>know who or what can influence your life. | LO: What is a spreadsheet?<br><br>Key Skills:<br>● To be able to identify Microsoft Excel aTo be able to navigate around a spreadsheet using cell references.<br>● To be able to enter data into cells.<br><br>Key Knowledge:<br>● To know what a spreadsheet looks like and what it is used for |

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| | **Key knowledge:**<br>● Understand the structure of a basic electrical circuit.<br>● Use recognised symbols when representing a simple circuit in a diagram.<br>● Understand basic origins of mains and battery power.<br>● Recognise different components of an electrical circuit (cells, wires, bulbs, buzzer and switch).<br>● Understand the functions of these components. | | influences could be both positive and negative. | (a software tool used for organising information).<br>● Pupils understand new vocabulary relating to spreadsheets: cells, columns, rows, cell names, sheets, workbook. |
| Week 2 | **S.K.L.O:** To understand how a circuit is completed and the function of a switch.<br><br>**W.S.L.O:** To use predictions to set up comparative tests.<br><br>**Key skills:**<br>● Make a prediction<br>● Use predictions to set up comparative tests.<br>● Build a basic electrical circuit<br>● To record results using recognised symbols.<br><br>**Key knowledge**:<br>● Understand the structure of a basic electrical circuit.<br>● Use recognised symbols when representing a simple circuit in a diagram.<br>● Recognise and predict when a circuit will not function. | **L.O: To** Identify the different lines of latitude and explain how latitude is linked to climate.<br><br>**Key Skills:**<br>Use maps, atlases, globes and digital/computer mapping to locate countries and describe features studied<br><br>**Key knowledge:**<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 Prime/Greenwich Meridian and time zones (including day and night) | **key question: Is Christianity still a strong religion 2000 years after Jesus was on Earth?**<br><br>**L.O:** To reflect upon whether festivals and symbols show that Christianity is still a strong religion<br><br>**Key Skills:**<br>I can weigh up evidence and different arguments / aspects relevant to the enquiry question and express my answer.<br>I can investigate using the internet if necessary<br><br>I can share and value others opinions on matters.<br><br>**Key knowledge:**<br>to understand the difference between a Christian and non-Christian festival<br>to understand what different Christian symbols represent as part of the religion. | LO: Basic Calculations<br><br>Key Skills:<br>● Pupils can use a spreadsheet to carry out basic calculations including addition, subtraction, multiplication and division formulae.<br>● Pupils can use the series fill function. Pupils recognise how using formulae allows the data to change and the calculations to update automatically<br><br>Key Knowledge:<br>● To know that a formula can be made using data on a spreadsheet<br>● To understand how to use simple data |

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| | • Understand the role of a switch. | | | formula s including addition, subtraction, multiplication and division formulae |
| Week 3 | **S.K.L.O:** To investigate if the loudness of a buzzer is affected by the voltage of cells.<br><br>**W.S.L.O:** To plan a scientific enquiry including recognising variables.<br><br>**Key skills:**<br><br>• Planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary.<br><br>**Key knowledge:**<br><br>• Use recognised symbols when representing a simple circuit in a diagram.<br><br>• Recognise and understand the function of different components of an electrical circuit.<br><br>• Understand the scientific method of an investigation - aim, method, hypothesis, results and evaluation. | **L.O:** To gather information on how a climate can change<br><br>**Key Skills:** Use maps, atlases, globes and digital/computer mapping to locate countries and describe features studied<br><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>**Key knowledge:**<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><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 Prime/Greenwich Meridian and time zones (including day and night) | **key question: Is Christianity still a strong religion 2000 years after Jesus was on Earth?**<br><br>**If Christianty was motivating people to do good in the world, would this show it if still a strong religion?**<br><br>**L.O:** To reflect upon how Christians use their faith to help the world.<br><br>**Key Skills:**<br>I can weigh up evidence and different arguments / aspects relevant to the enquiry question and express my answer.<br>I can investigate using the internet if necessary<br><br>I can share and value others opinions on matters.<br><br>**Key knowledge:**<br>to understand the difference between a Christian and non-Christian festival to understand what different Christian symbols represent as part of the religion. | LO: To use a spreadsheet to model a situation.<br><br>Key Skills:<br>• Pupils can use a spreadsheet to model a situation.<br>• Pupils can use a spreadsheet to solve a problem<br>• Pupils can use the SUM function<br><br>Key Knowledge:<br><br>• To know how to use the SUM function<br>• Understands and can explain what is shown in a SUM cell |
| Week 4 | **S.K.L.O:** To investigate if the loudness of a buzzer is affected by the voltage of cells.<br><br>**W.S.L.O:** To record results using a scientific diagram and table.<br><br>**Key skills:**<br><br>• Recording data and results of increasing complexity using scientific diagrams and labels, tables, and bar | **L.O:** To explore how we can stop a climate from changing<br><br>**Key Skills:**<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>**Key knowledge:** | **key question: Is Christianity still a strong religion 2000 years after Jesus was on Earth?**<br><br>**L.O:** To research where in British society do you see the influence of Christianity.<br><br>**Key Skills:**<br><br>To research effectively using the | LO: To organise data<br><br>Key Skills:<br><br>• To demonstrate how Excel can make complex data clear by manipulating the way it is presented.<br>• Pupils can use a variety of methods |

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| | graphs.<br><br>● Carry out investigation by adjusting voltage and recording results to form a conclusion and evaluation.<br><br>**Key knowledge:**<br>● To associate the loudness of a buzzer with the number and voltage of cells used in the circuit.<br><br>● To use recognised symbols when representing a simple circuit in a diagram.<br><br>● To recognise and understand the function of different components of an electrical circuit. | 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><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 Prime/Greenwich Meridian and time zones (including day and night) | internet<br>to deduce facts from opinions<br>I can weigh up evidence and different arguments / aspects relevant to the enquiry question and express my answer.<br><br>**Key knowledge:**<br><br>To know what consists as Britain<br><br>To understand where Christiantity is used within British society.<br><br>Christian Aid | including flash fill, convert text to tables and splitting cells for organising and presenting their data in a spreadsheet.<br><br>Key Knowledge:<br><br>● Pupils know what is meant by a delimiter (A delimiter is a character that separates each piece of data)<br>● Pupils understand how to sort data. |
| Week 5 | **S.K.L.O:** To create and justify a prototype of an electrical circuit design<br><br>**W.S.L.O:** To identify scientific evidence that has been used to support ideas<br><br>**Key skills:**<br><br>● Using test results to make predictions to set up further comparative and fair tests<br>● Identifying scientific evidence that has been used to support or refute ideas or arguments.<br><br>● To make informed predictions of how a 'buzzer game' circuit may work.<br><br>● To create a labelled diagram to justify ideas using scientific knowledge.<br><br>● To set up further circuits to investigate predictions. | **L.O:** To be able to infer information from a set of data.<br><br>**Key Skills:**<br><br>**Key knowledge:**<br>children will create a fact file/ brochure for a climate of their choosing. They will include their knowledge of the weather forecast, rainfall and where it is in the world to advise people the best time to go there what clothing will be needed. when is the best time of year to go to see certain things (such as the Northern lights etc due to weather patterns)<br><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 Prime/Greenwich Meridian and time zones (including day and night) | **key question: Is Christianity still a strong religion 2000 years after Jesus was on Earth?**<br><br>**L.O: Is Christianity still a strong religion 2000 years after Jesus was on Earth?**<br><br>**Key Skills:** evaluation and assessment lesson.<br><br>children need to gather up their ideas and thoughts from the past 5 weeks and summarise it clearly.<br><br>**Key knowledge:**<br><br>festivals used.<br>where do we see Christianity in Britain | LO: To use advanced formulae<br><br>Key Skills:<br><br>● To use formulae for percentages, averages, max and min into their spreadsheets.<br>●<br><br>Key Knowledge:<br>● Pupils know how to incorporate formulae for percentages, averages, max and min into their spreadsheets<br>● Pupils know some shortcuts that help to make data meaningful. |

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| | **Key knowledge:**<br>● To use recognized symbols when representing a simple circuit in a diagram.<br>● To understand the structure of a basic electrical circuit.<br>● To understand the functions of different components and compare between to understand the use of a switch.<br>● To associate the loudness of a motor with the voltage of cells. | | | |
| | | | | (There are 2 more lessons after this but can be applied on enterprise day)<br><br>LO: Charts and Graphics<br><br>Key Skills:<br>● To create a variety of graphs in Excel.<br>● To make a chart using Excel recommendations.<br>● Pupils illustrate their data using sparklines and data bars.<br><br>Key Knowledge:<br>● Pupils know that there are ways to represent their data graphically and that Excel can make these calculations for them.<br>● Pupils gain an |

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| | | | | understanding of how a graphical representation can make data easier to interpret. |