

Class: Mrs Kavalieros / Mr Oyston	Term: Spring 1	Year Group: 6
Prime Learning Challenge	Science - How does electricity work and how does its power vary? Geography- What do we know about North America and what are its main geographical features?	

Past What do pupils already know/understand? Do they have any misconceptions?	Present What do pupils want to know/understand? What are they interested in? What motivates them?	Context How is this challenge relevant to the needs of your children?
<p><u>Science:</u> The children studied electricity in Y4. During this learning sequence the children were taught to:</p> <ul style="list-style-type: none"> • 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 	<p><u>Science:</u> This unit of work builds on their prior knowledge from Year 4. This unit focusses more on the power of electricity.</p> <ul style="list-style-type: none"> • How does electrical energy vary? • What is electrical power? • What do we mean by electrical particles? • Which symbols are used to represent different parts of a simple circuit? • How can we construct simple series circuits? • How can we make use of our knowledge of circuits to create a simple game? 	<p><u>Science:</u> Electricity is a part of children's daily lives, from turning on lights to using electronic devices. Understanding electricity helps them make sense of the technology around them and how it functions. In today's digital age, technological literacy is essential. Teaching electricity provides foundational knowledge for understanding how gadgets and electronic systems work, contributing to their overall digital literacy. Electricity concepts are directly applicable to real-world situations. Children can grasp the practical implications of what they learn, from designing simple circuits to understanding how electricity is generated and distributed.</p>

<ul style="list-style-type: none"> recognise some common conductors and insulators, and associate metals with being good conductors <p><u>Geography:</u> The children previously studied the USA in Year 5. They will be able to recognise some of the human and geographical features of the USA but potentially not wider areas of North America.</p>	<p><u>Geography:</u> This unit of work builds on their prior knowledge from Year 5 (USA). This unit focusses more on the human and geographical features of the USA and how they compare to other North American countries.</p> <p><i>C1: Where are all the North American countries located?</i></p> <p><i>C2: What are the USA's key features, including human and physical features?</i></p> <p><i>C3: What do we know about how the USA's natural resources helped it to be one of the world's most wealthy and powerful countries?</i></p> <p><i>C4: How does life in Mexico differ to that in the USA?</i></p> <p><i>C5: Why did immigration play a key part in the development of the USA?</i></p>	<p><u>Geography:</u> This topic allows the children to have better understanding of the countries that make up the continent of North America. They will understand how the USA compares to other North American countries. They will also begin to understand how and why immigration can have a positive impact on the development of a country.</p>
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<p>By the end of this prime learning challenge...</p>	<p>Some: More Able</p>	<p><u>Science:</u> •associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit</p> <p>Explore, explain and demonstrate the pattern between the voltage of cells and the brightness of a bulb</p> <p>Investigate the concept of resistance/resistors.</p>
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		<ul style="list-style-type: none"> •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. •identify and name the basic parts of a simple electric series circuit, including cells, wires, bulbs, switches, and buzzers, and compare and give reasons for variations in how components function, including brightness of bulbs, loudness of buzzers and on/off position of switches •explain that short circuits may cause wires to heat up and that fuses are electrical safety devices that are triggered by short circuits • explain the effect of changing the voltage of a battery. <p><u>Geography:</u> Can they recall and explain in detail: Where are all the North American countries located? What are the USA's key features, including human and physical features? What do we know about how the USA's natural resources helped it to be one of the world's most wealthy and powerful countries? How does life in Mexico differ to that in the USA? Why did immigration play a key part in the development of the USA?</p>
	<p>Most: Core</p>	<p><u>Science:</u></p> <ul style="list-style-type: none"> •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. •identify and name the basic parts of a simple electric series circuit, including cells, wires, bulbs, switches, and buzzers, and compare and give reasons for variations in how components function, including brightness of bulbs, loudness of buzzers and on/off position of switches •explain that short circuits may cause wires to heat up and that fuses are electrical safety devices that are triggered by short circuits • explain the effect of changing the voltage of a battery. <p><u>Geography:</u></p>

		<p>Can they recall: Where are all the North American countries located? What are the USA's key features, including human and physical features? What do we know about how the USA's natural resources helped it to be one of the world's most wealthy and powerful countries? How does life in Mexico differ to that in the USA? Why did immigration play a key part in the development of the USA?</p>
	<p>All: Less able</p>	<p><u>Science:</u></p> <ul style="list-style-type: none"> •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. •identify and name the basic parts of a simple electric series circuit, including cells, wires, bulbs, switches, and buzzers, and compare and give reasons for variations in how components function, including brightness of bulbs, loudness of buzzers and on/off position of switches <p><u>Geography:</u></p> <p>Can they recall: Where are all the North American countries located? What are the USA's key features, including human and physical features? What do we know about how the USA's natural resources helped it to be one of the world's most wealthy and powerful countries?</p>
	<p>Specific Children</p>	

Pre-Learning

How will you make sure you are pitching appropriately?

Wow!

Reflection

How will you reflect & evaluate?

Science and Geography:

Children to complete a WIAK activity and WIWTFO questions.

Questions to be used for the classroom display board. Children to complete these as the topic evolves.

Science

Hook

- Human circuit using an energy circuit

Geography:

- North America WOW Day - Geographical tasks, food tasting from different countries.

Science:

Session 11 and 12: Complete reflection task. The children are to create a PowerPoint presentation in groups to reflect on their learning this term.
 Post-Learning Task - Complete assessment sheet.
 Allow children time to answer questions if not already done so. Return to the overall science question: *What is electrical power and how does it vary?*

Geography:

Session 6: Complete reflection task. The children are to create a double page spread demonstrating their knowledge of the geographical features of the continent of North America.
 Post-Learning Task - Complete assessment sheet.
 Allow children time to answer questions if not already done so. Return to the overall geography topic question: *What do we know about North America and what are its main geographical features?*

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
Literacy	Persuasive Leaflet: Visit Canada	Persuasive Leaflet: Visit Canada	Persuasive Leaflet: Visit Canada	Assessment Week	Dialogue: Rock, Paper, Scissors	Dialogue: Rock, Paper, Scissors
Rainbow Grammar		Expanded noun phrases	Non-finite Clauses		Direct speech	
Sounds Write	Extended Code 4: -oe- sound notepad rowboat focus fishbone	Extended Code 4: -oe- sound shadow elbow crossroads crossbow	Extended Code 4: -oe- sound fishbowl hotel going snowflake	Extended Code 4: -oe- sound progress yellow hollow borrow	Extended Code 4: -oe- sound mosquito romantic pillowcase telescope	Extended Code 4: -oe- sound episode following envelope bungalow
Statutory Spellings	Words ending in -able adorable valuable advisable believable	Words ending in -able desirable excitable knowledgeable likeable	Words ending in -able changeable noticeable considerable comfortable	Words ending in -ably adorably valuably believably considerably	Words ending in -ably tolerably noticeably dependably comfortably	Words ending in -ably reasonably admirably agreeably amicably
Handwriting	Soundwrite x2 Statutory Spellings x2	Soundwrite x2 Statutory Spellings x2	Soundwrite x2 Statutory Spellings x2	Soundwrite x2 Statutory Spellings x2	Soundwrite x2 Statutory Spellings x2	Soundwrite x2 Statutory Spellings x2
Maths	Decimals	Decimals	Fractions, Decimals, Percentages	Assessment Week	Fractions, Decimals, Percentages	Fractions, Decimals, Percentages
Science	Electricity: <i>What is electrical power and how does it vary?</i> LO: To recap and build on our knowledge of how electrical currents flow in a circuit.	Electricity: <i>What is electrical power and how does it vary?</i> LO: To be able to recognise and draw scientific circuit symbols <i>Which symbols are used to represent</i>	Electricity: <i>What is electrical power and how does it vary?</i> LO: To understand how electrical energy varies <i>How does electrical energy vary?</i>	Electricity: <i>What is electrical power and how does it vary?</i> LO: To understand electrical particles. <i>What do we mean by electrical particles?</i>	Electricity: <i>What is electrical power and how does it vary?</i> LO: To investigate how the variations in a circuit can affect the component function.	Electricity: <i>What is electrical power and how does it vary?</i> LO: To investigate how the variations in a circuit can affect the component function.

		<i>different parts of a simple circuit?</i>			<i>How can we investigate the variations of the function of components in a circuit?</i>	<i>How can we investigate the variations of the function of components in a circuit?</i>
History	N/A	N/A	N/A	N/A	N/A	N/A
Geography	Hook Lesson Pre-Learning Task <i>What do we know about North America and what are its main geographical features?</i>	LO: To be able to locate the countries of North America. <i>C1: Where are all the North American countries located?</i>	LO: To be able to identify the human and physical features of the USA. <i>C2: What are the USA's key features, including human and physical features?</i>	LO: To understand how the USA's natural resources helped it to become one of the most wealthy countries. <i>C3: What do we know about how the USA's natural resources helped it to be one of the world's most wealthy and powerful countries?</i>	LO: To be able to compare the lifestyles of those living in Mexico and the USA. <i>C4: How does life in Mexico differ to that in the USA?</i>	LO: To understand how immigration played a key part in the development of the USA. <i>C5: Why did immigration play a key part in the development of the USA?</i>
Music	<p><u>Charanga: You've Got a Friend</u> This is a six-week Unit of Work. All the learning in this unit is focused around one song: You've Got A Friend - a song about friendship by Carole King.</p>					
	Step 1: You've Got A Friend by Carole King	Step 2: The Loco-Motion sung by Little Eva You've Got A Friend by Carole King - Recorders	Step 1: You've Got A Friend by Carole King	Step 4: Up on The Roof by The Drifters You've Got A Friend by Carole King Recorders	Step 1: You've Got A Friend by Carole King	Step 6: You Make Me Feel Like a Natural Woman You've Got A Friend by Carole - Recorders
PSHE	Jigsaw - Dreams and Goals	Jigsaw - Dreams and Goals	Jigsaw - Dreams and Goals	Jigsaw - Dreams and Goals	Jigsaw - Dreams and Goals	Jigsaw - Dreams and Goals
Art/DT	Kapow: (Artist Study) Painting and Mixed Media	Kapow: (Artist Study) Painting and Mixed Media	Kapow: (Artist Study) Painting and Mixed Media	Kapow: (Artist Study) Painting and Mixed Media	Kapow: (Artist Study) Painting and Mixed Media	

RE	<p><u>Why Do Hindus Want To Be Good? (unit 39)</u> Within this unit, pupils will build on their learning about the Hindu worldview and way of life with particular progression from the units on 'what do Hindus believe God is like?' and 'what does it mean to be a Hindu in Britain today?' They will build on their understanding of dharma. Pupils will hear and interpret the story of the man in the well from the Mahabharata. They will investigate the key concepts of Karma, Dharma and samsara and how this might affect how a Hindu chooses to live their life using the example of two charities.</p>						
	Lesson 1: <i>Who or what is Brahman?</i>	Lesson 2: <i>What is atman? What can be learned about atman through a Hindu story?</i>	Lesson 3: <i>What is samsara? Why is atman important? What else is important?</i>	Lesson 4: <i>How might dharma affect the way someone lives their life?</i>	Lesson 5: <i>What is ahimsa and how does it affect the lives of the Hindu people?</i>	Lesson 6: <i>Why do Hindus want to be good?</i>	
MFL	Manger et Bouger	Manger et Bouger	Manger et Bouger	Manger et Bouger	Manger et Bouger	Manger et Bouger	
Computing	<p><u>Crossy Roads (Computer Science)</u> This unit continues the children's journey with visual programming and Scratch. The children will create their version of the popular app Crossy Roads by creating graphics and programming within Scratch. They will then add their game improvements. They will also document their coding by starting a journal in either Book Creator, Seesaw or PowerPoint; these are available across all platforms.</p>						
	LC 1: <i>My Online Life</i>	LC 2: <i>What is code?</i> (IT) To independently locate, open and edit a digital journal. (CS) To use decomposition to identify various elements of a game. (CS) To use programming knowledge to produce a plan for game design. (DL) To create an online account.	LC 3: <i>How do we make game graphics?</i> (IT) To create a series of game graphics. (IT) To save work in a suitable digital format.	LC 4: <i>How can we create a program to move a character?</i> (DL) To sign in to an online account. (DL) Sign in and out of an online account and understand why this is important. (CS) To upload images and change the properties of a sprite in Scratch. (CS) To use the broadcast	LC 5: <i>How do collision commands work?</i> (CS) To use loops forever and If statements to detect collisions within a game. (CS) To debug a program.	LC 6: <i>How can we use variables in a program?</i> (CS) To know that a variable is used to store values in a program. (CS) To create a variable in a game. (CS) To add to and take away from a variable.	LC7: <i>How can you make your game even better?</i> (CS) To independently plan improvements to a game program. (IT) To independently create graphics. (CS) To independently create programs. (IT) To share a screen recording or screenshots of the final game program.

