

YEAR 5/6	CYCLE A	BLOCK 6
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	Aims, Attainment Targets and Guidance	Suggested teaching sequence
Phase 1	REA4: Where did the bible come from?	
	<ul style="list-style-type: none"> Explore the origins of sacred writings and consider their importance for believers today Explore a variety of forms of literature found in sacred books and investigate a range of religious teachings Explore rules for living found in sacred writings and teachings and ask questions about their impact on the lives of believers 	<p>Investigate the history of the Bible and its origins → ask and respond to questions about the Bible → learn about the history of the Bible and some of its features → investigate the contents of the Bible → learn about different translations of the Bible and what it means for Christians today → investigating the Christian daily lives. → understand the difference between literal and symbolic truth and to reflect on personal emotions.</p>
Phase 2	REA5: Stories of Christianity	
	<ul style="list-style-type: none"> Explore the life of key religious figures and make links with teachings and practices of special significance to followers Explore the meaning of stories drawn from religious sources and reflect on the significance of key words, phrases or expressions Raise questions about issues which cause people to wonder and investigate some answers to be found in religious writings and teachings 	<p>Explore the themes of the Bible and identify familiar stories → Read key stories of Christianity. Create a focus such as justice and freedom → explore the story of Ruth and Naomi → explore the story of Daniel and relate this to religious persecution today → study the Story of the Adulterous Woman, the judgement of King Solomon and the crying camel → consider the significance of the stories/parables to today's society.</p>
Phase 3	SA5: Super scientist – Forces	
	<ul style="list-style-type: none"> explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object – explore the effects identify the effects of air resistance, water resistance and friction, that act between moving surfaces – explore the effects recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect – explore the effects 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 find out how scientists, for example, Galileo Galilei and Isaac Newton helped to develop the theory of gravitation. 	<p>What is weight → study gravitational force and complete investigations → research the lives of work of Galileo Galilei and Isaac Newton → identify the effects of friction acting between moving surfaces → identify and explain the effects of air resistance → identify and explain the effects of water resistance → investigation to find out how different shapes move in water: relate endeavor and longboats → recognise that levers and pulleys allow a smaller force to have a greater effect → recognise that gears allow a smaller force to have a greater effect → explore and design mechanisms → research Kemp Starley</p>
Phase 4	SA6: Super scientist - Light / CA3: We are cryptographers	
	<ul style="list-style-type: none"> recognise and use the idea that light travels in straight lines to explain that objects are seen because they give out or reflect light into the eye explain that we see things because light travels from light sources to our eyes or from light sources to objects and then to our eyes use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them. identifying scientific evidence that has been used to support or refute ideas or arguments. Use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs. Understand computer networks including the internet; how they can provide multiple services, such as the world wide web; and the opportunities they offer for communication and collaboration. Use technology safely, respectfully and responsibly; recognise acceptable/unacceptable behaviour; identify a range of ways to report concerns about content and contact. 	<p>Understanding of light and shadow and to explore how light travels → investigate how we see things through light entering the eyes → explore how light can be reflected and change direction → investigate reflections from a variety of surfaces → explore the differences between shadows and reflections and consolidate knowledge of how we see things → design and make a periscope → Investigate light by using shadow puppets → consider light phenomena.</p> <p>Learn more about communicating information securely through an introduction to cryptography (the science of keeping communication and information secret) → investigate early methods of communicating over distances → learn about two early ciphers, and consider what makes a secure password.</p>

Phase 5	<p>SA7: Super scientists – Sound / CA4: We are architects</p> <ul style="list-style-type: none"> • identify how sounds are made, associating some of them with something vibrating • recognise that vibrations from sounds travel through a medium to the ear • find patterns between the pitch of a sound and features of the object that produced it • find patterns between the volume of a sound and the strength of the vibrations that produced it • recognise that sounds get fainter as the distance from the sound source increases. • Use search technologies effectively, appreciate how results are selected and ranked, and be discerning • in evaluating digital content. • 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. 	<p>Explore vibration in a range of instruments → explore whether sounds can travel through different materials → explore the relationship between distance and volume → test if some materials are effective in preventing vibrations from sound sources reaching the ear → investigate how sounds can be different pitches and volumes → find out how the length, thickness and tightness of a string affects its pitch →</p> <p>research examples of science museums and their architecture → learn to use Trimble SketchUp → create own science gallery design .</p>
	<p>SA8: Super scientists – Electricity CA5: We are game developers</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 recognized symbols when representing a simple circuit in a diagram. • systematically identifying the effect of changing one component at a time in a circuit • design, write and debug programs that accomplish specific goals, including controlling or simulating physical systems; solve problems by decomposing them into smaller parts • use sequence, selection, and repetition in programs; work with variables and various forms of input and output • use logical reasoning to explain how some simple algorithms work and to detect and correct errors in algorithms and programs • 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 	<p>Recap electrical circuits and conductors/insulators → construct series circuits → investigate different components and represent in a diagram → investigate ways in which the brightness of a bulb or speed of a motor is changed → plan, carry out and evaluate an experiment to see how changing the wire in a circuit affects the brightness of a bulb → review and assess understanding of circuits.</p> <p>Plan their own simple computer game → design characters and backgrounds → create a working prototype → develop further based on feedback they receive.</p>
Phase 6		