

YEAR 5/6	CYCLE A	BLOCK 4
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	Aims, Attainment Targets and Guidance	Suggested teaching sequence
Phase 1 & 2	SA3: Properties and changes of materials	
	<ul style="list-style-type: none"> compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic demonstrate that dissolving, mixing and changes of state are reversible changes explain that some changes result in the formation of new materials, and that this kind of change is not usually reversible, including changes associated with burning and the action of acid on bicarbonate of soda. find out about how chemists create new materials, for example, Spencer Silver, who invented the glue for sticky notes or Ruth Benerito, who invented wrinkle-free cotton. 	<p>Compare and group materials according to their properties → investigate materials which dissolve in liquid to form a solution → describe how to recover a substance from a solution → investigate changes of state, dissolving, mixing processes can be reversed through filtering, sieving and evaporating → know that some changes form new materials, & that these changes are not usually reversible → know that changes caused by burning form new materials, these are not reversible → give reasons based on evidence from comparative and fair tests, for the uses of everyday materials.</p> <p>Investigate and consider why scientists need this knowledge and when it would be used Link into inventors and scientists. → research Spencer Silver and Ruth Benerito</p>
Phase 3	HA4: Beyond 1066 - Victorian inventors and scientists	
	<ul style="list-style-type: none"> Pupils should continue to develop a chronologically secure knowledge and understanding of British, local and world history, establishing clear narratives within and across the periods they study. They should regularly address and sometimes devise historically valid questions about change, cause, similarity and difference, and significance. gain historical perspective by placing their growing knowledge into different contexts, understanding the connections between cultural, economic, military, political, religious and social history; and between short- and long-term timescales. a study of an aspect or theme in British history that extends pupils' chronological knowledge beyond 1066: <ul style="list-style-type: none"> o a significant turning point in British history - the first railways 	<p>Recap solids, liquids and gases → review the knowledge that heating water causes steam: investigate that steam can be harnessed to drive machinery →investigate the first railways and the key figures involved → know what the industrial revolution was → find out how transport changed during the Industrial Revolution → find out about the development of the first steam powered railways in Britain → find out about the way rail travel changed the lives of people living in Britain since 1830.</p> <p>Investigate various Victorian inventors and scientists: Alexander Bell, Thomas Edison, Hertha Ayrton, Isambard Brunel.</p>
Phase 4	HA4: Beyond 1066 – Victorians: Queen Victoria	
	<ul style="list-style-type: none"> Learn about the lives of significant individuals in the past who have contributed to national and international achievements. Compare aspects of life, identifying similarities and differences between different periods. gain and deploy a historically grounded understanding of abstract terms such as 'empire', 'civilisation', 'parliament' and 'peasantry' gain historical perspective by placing their growing knowledge into different contexts, understanding the connections between cultural, economic, military, political, religious and social history; and between short- and long-term timescales. the changing power of monarchs using case studies such as John, Anne and Victoria 	<p>Research Queen Victoria using key historical sources and asking questions → Investigate Queen Victoria's childhood → research Queen Victoria's courtship and marriage to Prince Albert → Know about Queen Victoria's children (including who was net to reign) →place the reign of Queen Victoria on a timeline: include key points in Queen Victoria's life → Create a fact file of the terms of empire, parliament, peasantry, cultural and economic → record and plot the Victorian empire: research how this came about → consider peasantry during Victorians times</p>

Phase 5	<p>HA4: Victorians / AA3: William Morris</p> <ul style="list-style-type: none"> Develop techniques with creativity, experimentation and an increasing awareness of design. Learn about great designers in history. Develop techniques, including control and use of materials, with creativity, experimentation and an increasing awareness of different kinds of art, craft and design. Design innovative, functional, appealing, fit for purpose products. Evaluate ideas & products against their own design criteria and consider the views of others to improve their work. Understand how key individuals in D&T have helped shape the world. 	<p>Investigate the Pre-Raphaelites → research Victorian Decoupage → explore the distinctive design style of Morris and the patterns he designed → design own Morris inspired textiles or paper → Experiment with ways of producing the pattern on mass including printing and computer techniques → evaluate designs and provide constructive feedback.</p>
	<p>HA4: Victorian medicine / SA4: Living things - micro-organisms</p> <ul style="list-style-type: none"> Learn about the lives of significant individuals in the past who have contributed to national and international achievements. address and sometimes devise historically valid questions about change, cause, similarity and difference, and significance. describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro-organisms, plants and animals be introduced to the idea that broad groupings, such as micro-organisms, plants and animals can be subdivided give reasons for classifying plants and animals based on specific characteristics. 	<p>Investigate Edward Jenner and Louis Pasteur → Consider medicine through time and the impact of discoveries → recap the Linnaeus classification system: explore what micro-organisms are and how they can be grouped. → explore ways of distinguishing between organisms that have similar characteristics → classify plants according to their characteristics → identify and classify organisms in the local area.</p>
Phase 6		