Y3/4 Cycle A Spring Term 1 MTP: Victorian Mining

SUBJECT	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6
History	**What revolutionary changes happened in the Victorian era? SESSION 1A** ✓ To know the dates of the Victorian era and locate it on a timeline. ✓ To know when coal mining became a main industry and locate it on a timeline. ✓ To know the importance of coal mining in supporting the revolutionary changes in British Industry. ✓ To know that our knowledge of the past is constructed from different sources.	**What revolutionary changes happened in the Victorian era? SESSION 1B** ✓ To know that the Industrial Revolution was a period of major change in industry, technology and science where goods were made in factories. ✓ To know the similarities and differences between the fuels used before and during the Industrial Revolution and to know how this compares to modern day. ✓ To know that a photograph can be a more reliable historical source than a drawing/painting.	**What was it like to work in a mine? SESSION 2A** SESSION 2A ✓ To know some of the roles children carried out in coal mines during the Industrial Revolution. ✓ To know how and why different sources can give varied viewpoints of the past.	**Why were mines so dangerous? SESSION 2B: Q&A** ✓ To know that coal miners have gone on strike in the past to protest dangerous working conditions. ✓ To know that Lord Anthony Ashley introduced the Mines and Colliery Act in 1842 to improve safety conditions in the mines. ✓ [To know that dangerous conditions and safety concerns affected the coal mining industry.]	**What was the Oaks Colliery disaster?** ✓ To know about mining accidents in their local area. ✓ To know that Parkin Jeffcott tried to rescue miners in the Oaks Colliery disaster. ✓ [To know that dangerous conditions and safety concerns affected the coal mining industry.]	**What changes happened in the coal mining industry?** SESSION 4A ✓ To know that Sir Humphry Davy invented the Davy lamp to improve safety in the coal mines. ✓ To know how safety improved in the coal mining industry over time. ✓ To understand the impact of changes in the coalmining industry by devising historically valid questions.
			What was it like to work in a mine? SESSION 2B SESSION 2B ✓ To know that dangerous conditions and safety concerns affected the coal mining industry. ✓ To gain knowledge about what it was like to work in a coal mine by questioning a local ex miner. ✓ To gain knowledge of the coal mining industry by asking and answering questions using different historical sources.			**Would you want to be a Victorian miner? ASSESSMENT** ASSESSMENT ✓ [To know that dangerous conditions and safety concerns affected the coal mining industry.] ✓ [To know how safety improved in the coal mining industry over time.]
Science	**What is the difference between light and dark?** ✓ To know that darkness is the absence of light. ✓ To explain that we need light in order to see things. ✓ To know that there are different sources of light. ✓ To name and identify different sources of light.	**How can the sun be a harmful light source?** ✓ To know we need to protect our eyes and our skin from the sun's harmful rays. ✓ To know that there are different sources of light. ✓ To plan, with support, which measurements and standard units (if applicable) to use to gather relevant data. (WS) ✓ To use a range of equipment appropriately, including data loggers (e.g., Lux meters), with support, to collect relevant data. (WS) ✓ To take accurate measurements, with support, using standard units e.g., cm, metres, grams, Newtons etc. (WS) ✓ To use simple scientific language when recording findings, with support. (WS) ✓ To analyse finding from scientific enquiries, with support, to find answers to questions. (WS) ✓ To identify patterns and	**How are shadows formed?** ✓ To know that a shadow is formed when an object blocks light. ✓ To describe, with help, why a shadow has the same shape as the object casting it. ✓ To know and name different opaque, translucent and transparent materials. ✓ To use knowledge of opaque materials to explain why they cast the best shadows.		**How does the size of a shadow change?** ✓ To understand that there are patterns in the way the size of the shadow can be changed. ✓ To structure questions, with support, to be answered in a scientific enquiry. (WS) ✓ To explain, with support, what needs to stay the same and what is changing in comparative and fair tests. (WS) ✓ To report findings from scientific enquiries in a variety of ways, with support, e.g., oral and written explanations, displays, presentations etc. (WS) ✓ To record findings from scientific enquiries using drawings, labelled diagrams, keys, bar chart and tables, with scaffolding and support. (WS) ✓ To use relevant scientific language to discuss and communicate findings to suit a given audience, with support.	**Which materials reflect light?** ✓ To know that light is reflected from the surface of objects into our eyes and that is how we see them. ✓ To use relevant scientific language to discuss and communicate findings to suit a given audience, with support. (WS)

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		relationships from data and observations from science enquiries, with support. (WS)			✓ To analyse findings from scientific enquiries, with support, to find answers to questions. (WS)	
		What are opaque, transparent and translucent materials?				
		✓ To know and name different opaque, translucent and transparent materials. ✓ To plan, with support and scaffolding, what simple equipment is needed to gather relevant data. (WS) ✓ To decide, with support and structured scaffolds, the observations to make, including the frequency of observations, in order to find answers to a question. (WS) ✓ To use a range of equipment appropriately, including data loggers (e.g., Lux meters), with support, to collect relevant data. (WS) ✓ To take accurate measurements, with support, using standard units e.g., cm, metres, grams, Newtons etc. (WS) ✓ To use relevant scientific language to discuss and communicate findings, to suit a given audience, with support. (WS)				
D&T			**How have mining helmets designs changed over the years?** ✓ To know how some key designs of engineers in design and technology have helped shape the world. ✓ To know how designs have been adapted over time to meet and improve design briefs. ✓ To know what a design flaw is and how it might be resolved.	**How do you make a bulb light up?** ✓ To know that electrical systems are used in the design of some products. ✓ To use scientific knowledge to make simple electrical systems. ✓ To know that electrical systems have an input, process and output.	**How can you help miners to see safely?** ✓ To use scientific knowledge of circuits to design a working model mining helmet including a labelled diagram and instructions. ✓ To know that electrical circuits and components can be used to create functional products. ✓ To know how safety features need to be considered in the design of electrical products. ✓ To know an electrical system can be altered to improve efficiency and apply this to their own design.	**How might mining helmets change in the future?** ✓ To know that advancements in technology influence design over time.

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BLOCKING SUGGESTED ORDER:

1) History
2) Science
3) D&T