

Material world unit overview

		SCIENCE OUTCOMES	LITERACY OUTCOMES	LESSON SUMMARY	ASSESSMENT OPPORTUNITIES
		Students will be able to	Students will be able to	Students	
ENGAGE	Lesson 1 Curious clothes Session 1 Fanciful fiction Session 2 Gripping gloves	represent their current understanding about <ul style="list-style-type: none"> the properties of materials how the properties of materials relate to their use. 	<ul style="list-style-type: none"> contribute to discussions about properties and uses of materials understand the purpose and features of an annotated drawing develop scientific vocabulary about materials and properties record ideas about materials and properties in a science journal. 	Session 1 Fanciful fiction <ul style="list-style-type: none"> use a narrative and discussion to explore the relationship between properties of materials and their uses construct a snapshot of what they know about the properties of materials and their uses. Session 2 Gripping gloves <ul style="list-style-type: none"> identify the uses of different gloves explore the materials used to make different types of gloves. 	Diagnostic assessment Through discussion, share ideas and questions about properties and uses of materials Science journal entries Observation records 'Glove guide' (Resource sheet 1)

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EXPLORE	Lesson 2 What a rotter	<ul style="list-style-type: none"> identify the features of a fair test identify variables to investigate make predictions about the decomposition of materials and give reasons for their predictions test materials for decomposition. 	<ul style="list-style-type: none"> contribute to discussions about fair testing and the decomposition of materials develop scientific vocabulary about decomposition describe the purpose and features of a table record ideas in a science journal. 	Session 1 That's not fair! <ul style="list-style-type: none"> consider the 'fairness' of a dress-up relay record their ideas about fair testing in their science journals. Session 2 Rot or remain? <ul style="list-style-type: none"> make predictions about decomposition of materials investigate the decomposition of materials showing an awareness of the need for fair testing. 	Formative assessment Student participation in and discussion about the dress-up relay Science journal entries
	Session 1 That's not fair! Session 2 Rot or remain?				

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EXPLORE	Lesson 3 Leak, soak or repel?	<ul style="list-style-type: none"> describe the elements of a fair test make predictions about the absorbency of materials plan and conduct a test of the absorbency of materials interpret results by identifying uses for materials. 	<ul style="list-style-type: none"> use oral, written and visual language to report observations on the absorbency of materials develop scientific vocabulary about the absorbency of materials use a table to record predictions and observations. 	<ul style="list-style-type: none"> explore the absorbency of materials conduct a fair test about absorbency. 	Formative assessment Verbal descriptions and reasoning Science journal entries
	Lesson 4 Snap, tear or stretch?	<ul style="list-style-type: none"> make predictions about the tensile strength of materials plan and conduct a test of the tensile strength of materials record results in a table and interpret findings. 	<ul style="list-style-type: none"> contribute to discussions about tensile strength of materials use a table to record predictions and observations develop scientific vocabulary about tensile strength. 	<ul style="list-style-type: none"> explore the tensile strength of materials plan and conduct a fair test of tensile strength of materials record results in a table and interpret findings. 	Formative assessment ‘Snap, tear or stretch?’ (Resource sheet 5) Science journal entries

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EXPLAIN	Lesson 5 Choosey consumers	<ul style="list-style-type: none"> describe and compare the properties of materials explain how the properties of materials make them suitable for different uses describe the positives and negatives of using certain types of materials for certain uses. 	<ul style="list-style-type: none"> use oral and written language to represent their understanding of how the properties of materials relate to use record observations and explanations about the decomposition of materials read a factual text about the properties of plastics understand the features and purpose of role-plays and factual texts use scientific vocabulary appropriately in their writing and talking. 	<p>Session 1 Bags of fun</p> <ul style="list-style-type: none"> select suitable bags based on the properties of their materials to transport particular objects identify properties of materials and how they relate to use. <p>Session 2 Puzzling plastics</p> <ul style="list-style-type: none"> explore the results of the decomposition investigation read a factual text about the properties of plastics explain their understanding of the properties and uses of plastic materials through role-play. <p>'Puzzling plastics' (Resource sheet 7)</p>	<p>Formative assessment</p> <p>'Carrying dilemma' (Resource sheet 6)</p> <p>Participation in role-play</p> <p>Science journal entries</p>
	Session 1 Bags of fun				
	Session 2 Puzzling plastics				

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ELABORATE	Lesson 6 Investigating insulation	<ul style="list-style-type: none"> plan an investigation into the thermal insulation capacity of materials, showing an awareness of the need for fair testing describe the features of fair testing record findings in a table and interpret results as a graph identify which materials are the best thermal insulators generate explanations about the thermal insulation capacity of materials. 	<ul style="list-style-type: none"> use language and visual representations to design and record an investigation into the thermal insulation capacity of materials use a table and a graph to record and represent findings identify the features and purpose of a graph participate in discussions about the thermal insulation capacity of materials. 	<ul style="list-style-type: none"> plan and conduct an investigation of the thermal insulation capacity of materials observe, record and interpret results. 	<p>Formative assessment</p> <p>'Keeping it warm investigation planner' (Resource sheet 8)</p> <p>Science journal entries</p>

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EVALUATE	Lesson 7 Material matters	<ul style="list-style-type: none"> describe the properties and uses of everyday materials explain why the properties of a material make it suitable for a particular use. 	<ul style="list-style-type: none"> contribute to discussions about materials, their properties and uses use scientific vocabulary appropriately create an annotated drawing to represent what they know about the properties of materials and how they relate to use reflect on their learning in a science journal entry. 	<ul style="list-style-type: none"> review the unit using the science journal, word wall and other resources developed during the unit represent their understanding of the properties of materials by creating a page for a class design catalogue reflect on their learning during this unit. 	Formative assessment 'Material matters' (Resource sheet 9) Science journal entries