Material World – Stage 2

Term	1	2	3	4	Weeks	1	2	3	4	5	6	7	8	9	10	11

Material World Strand

Outcome	Lesson Sequence – Overview	Resources	Word Wall
 ST2-7MW-T investigates the suitability of natural and processed materials for a range of purposes discuss the properties of materials explore how the properties of materials relate to their use. ST2-1WS-S questions, plans and conducts scientific investigations, collects and summarises data and communicates using scientific representations 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 	 Lesson 1 <u>Curious clothes - Lesson focus p9</u> To capture students' interest and find out what they think they know about how natural and processed materials have a range of physical properties, and how these properties can influence their use. To elicit students' questions about the properties of materials and uses of materials in everyday life. Session 1 Fanciful fiction <u>Students:</u> 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 <u>Students:</u> identify the uses of different gloves explore the materials used to make different types of gloves. 	 Session 1 For the class class science journal word wall narrative text - Animals Should Definitely Not Wear Clothing or Mr Tuggle's Trouble (see 'Preparation') 1 piece of clothing (see Lesson step 4) 1-2 large sheets of cardboard For each student several self-adhesive notes Session 2 For the class class science journal word wall class materials snapshot from Lesson 1, Session 1 1 enlarged copy of 'Glove guide' (Resource sheet 1) collection of different gloves (eg, woollen, ski, gardening, evening, rubber (dishwashing), latex, see 'Preparation') large box (see 'Preparation') 	absorbency biodegradable capacity clothes comparison compost container cool decomposition efficient fabric fair test heavy insulation investigation

 record ideas about materials and 		optional: 1 enlarged copy of	journal
properties in a		(Resource sheet 2)	
science journal.		 optional: 1 enlarged copy of 	IEAR
		'Bags at home' (Resource sheet 3)	light
		For each student	materials
		 science journal 1 copy of 'Glove guide' 	natural
		(Resource sheet 1)	plastic
		'Information note for families' (Resource sheet 2)	positives
		 optional: 1 copy of 'Bags at home' (Resource sheet 3) 	prediction
ST2-7MW-T investigates the	Lesson 2	Session 1 For the class	processed
suitability of natural	What a rottorly Losson focus n20	class science iournal	nconecties
and processed	To provide students with hands on shared experiences of fair testing and the	 word wall 	properties
of purposes	decomposition of materials.	collection of clothes (eg,	negatives
identify the	Consign 1 That/a not fairl	scarves, dresses, aprons.	
teatures of a fair	Session 1 mat's not fair!	shirts, see 'Preparation')	opaque
identify variables	consider the 'fairness' of a dress un relay	3 markers for a relay (eg, witches beta serves	recycle
to investigate	 consider the failness of a dress-up relay record their ideas about fair testing in their science journals 	Lesson step 2)	
about the			reauce
decomposition of	Coopien 2 Det ex remain 2	For each student	repel
give reasons for	Session 2 Rol of Temain?	science journal	ſ
their predictions		Session 2	reuse
test materials for decomposition	 Make predictions about decomposition of materials investigate the decomposition of materials showing an awareness of the need for fair testing 	For the class	riaiditu
ST2-1WS-S		class science journal	rigiding
questions, plans and		Word Wall toam rolos chart	sample
conducts scientific		team skills chart	
investigations,			

a alla ata and			
		• 3 cm x 3 cm material sample	science
summarises data and		(eg, newspaper)	
communicates using		 1 marking pen 	soak
scientific		 1 clear plastic container, at 	Souk
representations		least 10 cm deep (eg, a	stratch
 contribute to 		takeaway food container)	SILEICH
discussions about		• optional: digital camera	: i - b : l : l
fair testing and		-p	suitability
the		For each team	11 1.
decomposition of		 role wristhands or hadnes for 	synthetic
materials		Director Managor and	5
develop scientific		Speaker	tear
vocabulary about		Speaker	, , , ,,
decomposition		each learn member's science	tensile strenath
 describe the number of and 		journal	J
foaturos of a tablo		• 3 or more 3 cm x 3 cm	thermal
		material samples (eg, paper,	
		plastic and fabric bags, see	transnarent
Science.		'Preparation')	ir unspur eni
		 1 marking pen 	
		 1 clear plastic container, at 	USE
	Mawana Yalbili	least 10 cm deep (eg, a	
		takeaway food container)	warm
		• 1 apple core	
		 soil enough to fill a plastic 	
		container 10 cm deen	
ST2.7MW.T		For the class	
investigates the	Lesson 3	 class science journal 	
suitability of natural	Leak, soak or repel? Lesson focus p28	• class science journal	
and processed	• To provide students with hands-on, shared experiences of the absorbency of materials.	Word wall	
matorials for a range	Studente	learn roles chart	
of purposes	Students:	 team skills chart 	
or purposes	explore the absorbency of materials	 class materials snapshot 	
 describe the olomonts of a fair 	conduct a fair test about absorbency	from Lesson 1, Session 1	
tost	······································	 1 enlarged copy of 'Leak, 	
 make prodictions 		soak or repel?' (Resource	
ahout the		sheet 4)	
absorbency of		 food colouring (to colour 1 	
materials		cup of water for each team)	
		 coloured water 	

 plan and conduct a test of the absorbency of materials interpret results by identifying uses for materials. ST2-1WS-S questions, plans and conducts scientific investigations, collects and summarises data and 		 15 cm x 15 cm square of tissue paper 1 eye-dropper 1 transparent container (eg, plastic cup) 1 cup of coloured water 1 elastic band <i>optional:</i> 1 can waterproofing spray (eg, shoe or lounge spray) For each team
communicates using scientific		 role wristbands or badges for Director,
representations		Manager and Speaker
 use oral, written and 		each team member's
visual language to		science journal
report observations		• 1 copy 'Leak, soak or
on the absorbency of materials		repel?' (Resource sheet
develop scientific		4) per team member
vocabulary about the	Mawang Yalbili	4 or more 15 cm x 15
absorbency of		cm material samples of
materials		similar thickness (eg,
 use a table to record 		paper, plastic and fabric
predictions and		a 1 avo droppor
UNSCIVATIONS		• 1 transparent container
		(eq. plastic cup)
		 1 cup of coloured water
		 1 elastic band

		For the class
312-71VIVV-1	Lesson 4	
	Snap, tear or stretch? Lesson focus p36	class science journal
suitability of natural		word wall
and processed	• To provide students with hands-on, shared experiences of the tensile strength of materials.	team roles chart
materials for a range	Ctudento	team skills chart
of purposes	<u>Students:</u>	 class materials snapshot from
 make predictions 	explore the tensile strength of materials	Lesson 1 Session 1
about the tensile	plan and conduct a fair test of tensile strength of materials	 1 enlarged conv of 'Snan tear
strength of	 record results in a table and interpret findings 	or strateb?' (Desource sheet
materials		
 plan and conduct 		U)
a test of the		• Tharge clothes peg
tensile strength of		• 1 cm x 15 cm strip of
materials		newspaper (see 'Preparation')
 Tecord Tesuits III a table and interpret 		
findings		For each team
ST2_1W/S_S		
guestions plans and		 role wristbands or badges for
conducts scientific		Director, Manager and
investigations		Speaker
investigations,		each team member's science
collects and	Mawang Yalhili	iournal
summarises data and		• 1 copy of 'Snap, tear or
communicates using		stretch?' (Resource sheet 5)
scientific		ner team member
representations		several large clothes pegs
Contribute to		• $A \text{ or more } 1 \text{ cm } y \text{ 15 cm string}$
uiscussions about		of material (see (Dronaration))
iensile strength of		1 magnifulna glass
 use a lable lu record predictions 		
and observations		
vocabulary about		
tensile strength.		

ST2-7MW-T	Lesson 5	Session 1
investigates the	Chaosay consumers Lesson facus p/2	For the class
suitability of natural	<u>Choosey consumers – Lesson locus p42</u>	 class science journal
and processed	• To support students to represent and explain their understanding of the properties of	word wall
materials for a range	materials and how they relate to use, and to introduce current scientific views	 team roles chart
of purposes		team skills chart
 describe and 	Session 1 Page of fun	 1 enlarged conv of
compare the	Stadarta	'Carrying dilemma'
properties of	<u>Students:</u>	(Resource sheet 6)
materials	• select suitable bags based on the properties of their materials to transport particular objects	 5 different bags (og. calico.
• explain how the	identify properties of materials and how they relate to use.	• 5 uncern bays (eg, canco, thick plastic paper thick
properties of		fabric, this plastic, soo
materials make	Session 2 Puzzling plastics	(Droparation)
different uses	Students:	riepalation)
doscribo tho	<u>students.</u>	For each team
 describe the positives and 	 explore the results of the decomposition investigation 	Fui each leann
negatives of using	 read a factual text about the properties of plastics 	Tole Wilsipalius of Dauges for Director, Monager and
certain types of	 explain their understanding of the properties and uses of plastic materials through role- 	for Director, Manager and
materials for	play.	Speaker
certain uses.		• each team member's
ST2-1WS-S		science journal
questions, plans and	Mawang Yalbili	• 1 copy of 'Carrying
conducts scientific		dilemma' (Resource sheet
investigations,		6) per team member
collects and		
summarises data and		Session 2
communicates using		For the class
scientific		class science journal
representations		word wall
 use oral and 		team roles chart
written language		team skills chart
to represent their		 1 enlarged copy of 'Puzzling
understanding of		over plastics' (Resource sheet
how the		7)
properties of		factual texts about plastics
materials relate to		(see the PrimaryConnections
USe		website for suggestions)
 record observations and 		website for suggestions/
explanations		For the team
properties of materials relate to use record observations and		 factual texts about plastics (see the PrimaryConnections website for suggestions)
explanations		For the team

 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. 		 role wristbands or badges for Director, Manager and Speaker each team member's science journal material samples buried in Lesson 2 tray to hold samples 1 copy of 'Puzzling over plastics' (Resource sheet 7) per team member 	
ST2-7MW-T investigates the	Lesson 6	For the classclass science journal	
suitability of natural		word wall	
and processed	• To support students to plan and conduct an investigation of the thermal insulation capacity of	1 enlarged copy of 'Keeping it	
of purposos	materials.	warm investigation planner	
or purposes	Students: Mawana Valbili	(Resource sheet 8)	
• plan an investigation		 200 mL hot water (<50°C) 	
inculation canacity of	• measure water temperature to investigate the thermal insulation capacity of materials		
materials showing	observe, record and interpret results.	For each team	
an awareness of the			
need for fair testing		 role wristbands or badges for 	
 describe the features 		Director, Manager and	
of fair testing		Speaker	
• record findings in a		each team member's science	
table and interpret		journal	
results as a graph		• 1 copy of 'Keeping it warm	
identify which		investigation planner'	
materials are the		(Resource sheet 8) per team	
Dest inermal		member	
		3 identical metal containers	
yenerate ovnlanations about		(eq. tins or cans to hold 200	
the thermal		ml warm water see	
insulation capacity of		(Preparation)	
materials.			

ST2-1WS-S questions, plans and conducts scientific investigations, collects and summarises data and		 3 different materials (eg, wool, cotton and plastic, see 'Preparation') 1 thermometer 600 mL hot water (<50°C) 1 x 200 mL measuring cup 1 funnel
communicates using		elastic hands
scientific		 1 timing device (eg. a)
representations		stopwatch or a watch with a
 use language and visual 		second hand)
 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	Mawang Yalbili	nya
participate in		<i>"</i>
discussions about		
insulation canacity of		
materials.		

ST2-7MW-T	Lesson 7	For the class
investigates the	Material matters, Lesson focus p63	
suitability of natural		class science journal
and processed	• To provide opportunities for students to represent what they know about how natural and	word wall
materials for a range	processed materials have a range of physical properties, how these properties can influence	1 enlarged copy of 'Material
• describe the	their use, and to reflect on their learning during the unit.	matters' (Resource sheet 9)
properties and uses	Students:	
of everyday	review the unit using the science journal, word wall and other recourses developed during	For each student
materials	• Teview the unit using the science journal, word wall and other resources developed during the unit	
• explain why the	represent their understanding of the properties of materials by creating a page for a class	each team member's science
properties of a	design catalogue	journal
suitable for a	 reflect on their learning during the unit 	1 copy of 'Material matters' (Descurse sheet 0)
particular use.		(Resource sheet 9)
		magazines that can be cut up
ST2-1WS-S		
questions, plans and		
invostigations		
collects and) Mawang Yalbili	זעמ
summarises data and	0	/
communicates using		
scientific		
representations		
contribute to		
discussions about		
nroperties and uses		
 use scientific 		
vocabulary		
appropriately		
create an annotated		
arawing to represent		
about the properties		
of materials and how		
they relate to use		

