Connected Outcome Group Growing and changing Stage 1

Inside you will find the following curriculum linked activities: Investigating the properties of unprocessed wool Comparing lambs and children Presenting a puppet show about wool Creating a puppet show about wool Singing about sheep and wool Exploring sounds associated with sheep Sculpting fantasy sheep Examining Tom Roberts' 'Shearing the rams' Visiting a working farm Sharing discoveries about wool Evaluating A Peep at Sheep



NSW DEPARTMENT OF **PRIMARY INDUSTRIES**

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The materials and activities contained in a *Peep at Sheep* best support the implementation of NSW Department of Education & Training's Stage 1, Growing and Changing Connected Outcome Group (COG). The kit can also be used to support the Products and Services COG. *A Peep at Sheep* aims to give students a broad introduction to sheep and wool. The activities will not fully deliver all the listed outcomes; it should be considered a case study or a series of enrichment activities.

Each outcome has a lead activity followed by extension activities. We suggest starting with task 1 then sequencing the remaining activities to suit your students. Final evaluation activities have been included.

Task	Teaching and learning activities	Evidence of achievement
1.To investigate the properties of unprocessed wool Why not start here?	Conduct a simple guided investigation This activity encourages scientific thinking. <u>1. stir curiosity</u> Give small groups unprocessed wool and ask them to observe things like feel, smell, look, colour etc. Students then write down / draw as much as they can about wool. Make a 'things we know list' (observations, prior knowledge). Display the list in the classroom and add to it when new facts arise. <u>2. Explore</u> Give students some tools, e.g. a magnifying glass, microscope, to help them observe unprocessed wool. Ask students to come up with some questions they may have about the wool. Encourage 'can', 'does', 'is', 'will' and 'do' type questions. For example - Can the wrinkles come out? Does it always smell? Does it keep you warm? Can it be coloured? Make a 'things we want to find out list' (questions). Narrow down the questions to those which can be answered via a simple class experiment. Refine questions. For example, 'Why is wool cream coloured?' is a hard one to investigate.	Science and Technology INVS1.7 Conducts guided investigations by observing, questioning, predicting, collecting and recording data, and suggesting possible explanations. - explores unprocessed wool using senses and tools - records observations about unprocessed wool - identifies gaps in knowledge and understanding about unprocessed wool - selects a topic for investigation

 'Does wool keep you warm' could be investigated. 3. Find out Students choose a question as a class or in groups and then design an experiment to answer the question. Perhaps use these guiding questions: What is the question to be answered? What do you think the answer is? What do you think you take to find an answer to this question? What materials would you need? What dan will you record? [Encourage the use of a table to record data) Do you think the answer is? What do you think you will need to do the experiment more than once? Why?? For example: What do you think the answer is? I believe wool will warm my hands. What do you think the answer is? I believe wool will warm my hands. What steps could you take to an any the person place their hands on a cold surface. b. Record the temperature of each hand. c. Wrap a pile of wool around one hand with a thermometer between the wool and hand. d. Record the temperature after 10min. What data will you record? Date, time, where I am, temperature, how the person feels 6. Do you think you will need to do the experiment more than once to make sure of the results? Yes. Assist students to refine their process. Test the process and refine if necessary. Why not use parent helpers? What data did you record? What data tell you? What did the data tell you? Did you make any changes along the way? 	 poses an hypothesis designs an experiment to test the hypothesis conducts an experiment to test the hypothesis collects data talks about process, data and results records new observations about unprocessed wool
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	2				
What is the answe		2			
Where you able to	predict the answe	er?			
For example:					
What happened? N		er when wrapped ir	n wool.		
What data did you		1		7	
Data	Test	Person 1	Person 2	_	
Date	8/7/07	8/7/07	8/7/07		
Season	winter	winter	winter		
Time	2.15pm	2.30pm	3.00pm		
Where	outside, on marble table	inside on table	inside on table		
Temperature - before wool	Air - 15 °C On top of hand - 20°C	Air - 16°C Under hand - 30°	Air - 17°C On top of hand - 27°		
Temperature - after 10 minutes in wool	27°C	32°C	30°C		
How do you feel?	I can feel the hand wrapped in wool warming up. My other hand is freezing.	My woolly hand is hot	One warm hand one cool hand		
Notes	 make sure thermometer sits close to the hand person must stay still wrap the hand tightly in wool so there are no gaps 	Under the hand is hot so the temperature didn't change much			
What did the data Did you make any What is the answe Where you able to	changes along the r? Wool warms han	way? Yes, I change ds.	d where I placed t	」 he thermometer.	

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 <u>5. Present</u> The groups describe their investigation and present data and information to the class, another class or parents and discuss the results. Check out these website for more science process ideas. <u>http://www.science.org.au/primaryconnections/index.htm</u> <u>http://www.justsciencenow.com/phases</u> 	
Extension activities: Complete a compare and contrast chart Examine some unprocessed and processed wool. Compare the two samples. Students could try to explain what happens to wool to change it from unprocessed to processed wool. Record the findings.	
Read the poster, 'Making clothing from wool' Possible discussion questions: Where does wool come from? How does wool grow? How is wool removed from sheep? What happens to wool after shearing? What is a fibre? (Give definition and example.)	
Show the students a wool fibre. Talk about how fine and long it is. What sort of clothing is made from short wool fibres? (A short wool fibre is less than 4cm) What sort of clothing is made from long wool fibres? (A long wool fibre is greater than 4cm) Why do long bits make smooth fabric? (they can be stretched and spun into smooth yarn, then tightly woven)	
Display the wool products from the kit Ask the students to help sort the products into short fibre or long fibre products. Discuss	

	<pre>why wool has been chosen to make each item. Invite a guest speaker Invite a local spinners group to come and give a demonstration. Conduct a clothing label audit Where was the garment made? What is it made from? What are the properties of the fabric? Learn to knit Download instructions on-line at http://www.patons.biz/knitting_info/How_to_Knit.htm Students could knit a scarf (perhaps in school colours) or organise a Red Cross Trauma Teddy knitting drive (http://www.redcross.org.au/nsw/supportus_reg_vol_opps.htm) Weave Make a simple wool weaving card. Learn to crochet Download instructions on-line at http://www.patons.biz/knitting_info/How_to_crochet.htm</pre>	
To identify some similarities between lambs and children	Read the big bookThe story of Wobbly the woolly sheep and Timothy his best friend compares little boys andlittle lambs' early development. Use the questions in the story as discussion starters.Further discussion questions:What will Wobbly look like when he is fully grown?What will you look like when you are fully grown?How are children different to sheep?Draw a timeline on the board to show Wobbly from birth to maturity (sheep live from 6-11years). Label with as many descriptive words as possible such as lamb, weaner, ram. Do thesame for a person. Include things needed for healthy growth and development.	Science and Technology LTS1.3 Identifies and describes ways in which living things grow and change. - recounts personal physical changes - describes Wobbly's changes - identifies lamb, ram, ewe - uses terms such as baby, child, teenager, women, man,

	Extension activit Add to the heigh Add the height of be calculated and keep. Shear sheep Students glue flut shear it without of tabulate the clip; much is the class A Merino fleece w	grandparent etc - lists needs for healthy growth and development PDHPE GDS1.9 Describes the characteristics that makes them both similar to others and unique. - compares and contrasts the development of sheep and children				
		name e.g. Bella class total Class average	fleece weight 10g	price \$10		
To present a pre- recorded puppet show about wool	about? Introduce the cha What do Sam, Sau Do you think this Introduce the pu	sion points: o and the Case of t aracters, give a bri lly, Wobbly and Ins is a happy puppet ppets. dentify each charac the play.	ef description and pector Merino lool show, sad puppet	or read some of t k like? Sound like?	he play. Act like?	Creative Arts DRAS1.1 Takes on roles in drama to explore familiar and imagined situations. - Identifies and describes characters - follows stage direction - uses the puppets, theatre and CD to present a puppet show - recounts story Creative Arts

What is the music for? What does 'enter' 'exit' mean? What background noises can you here? Where does the play take place? How do we know this? Examine the theatre. How can we use the 5 puppets, the CD and the theatre to present the play?	DRAS1.3 Interacts collaboratively to communicate the action of the drama with others. - uses the puppets, theatre and CD to present a puppet show
Put on a puppet show Join Sam the shearer, inspector Merino, Sally the ewe, Wobbly the ram and Lester the lamb as they work out who stole the missing fleece. Ask two students to use the puppets to act out the pre recorded script. Students can take turns to present all or part of the play. The play introduces the dual warming and cooling properties of wool. Examine the performance Discussion prompts: What happens in the beginning of the puppet show? What is the puppet show about? Who is your favourite character? Why? Why was the puppet show written? What does a wool classer do? Did the play tell us anything new about wool? What did we do better next time? Extension activities: Rewrite some of the play in order to change the ending. Construct sheep masks and act out the pre recorded show. Students could do this without the theatre, they could be the puppets.	Creative Arts DRAS1.4 Appreciates dramatic work during the making of their own drama and the drama of others. - recounts story - Identifies and describes characters - describes the setting - identifies aspects of the show that worked well - identifies aspects of the show which need improvement - gives reasons for the shows creation
Create an advertisement for the puppet show.	

	Advertise and present a lunchtime performance of the puppet show.	
To create and present a puppet show about wool	Make up a play about wool Students script a new play about wool in groups and present it to the class. This could be written, through drawings or done verbally.	Creative Arts DRAS1.2 Conveys story, depicts events and expresses feelings by using the elements of drama and the expressive skills of movement and voice. - presents an original puppet show Creative Arts
		DRAS1.3 Interacts collaboratively to communicate the action of the drama with others. - scripts and presents an original show with others
To sing about sheep or wool	 Brainstorm 'Songs I know about sheep or wool'. For example, 'Click go the shears' or 'baa baa black sheep' or 'Mary had a little lamb' or 'Little Bo Peep' or 'Once a jolly swagman'. Make a list on the board. Learn a new song Choose a song from the list or another song. Read the lyrics to the class. Discussion / activity prompts: What is the song about? Who are the characters? Listen to the song.	Creative Arts MUS1.1 Sings, plays and moves to a range of music, demonstrating an awareness of musical concepts. - sings a well known song about sheep or wool - mimes or moves in response to a song - recreates part of a song in a new style

	How does the song make you feel? Clap the chorus. Can you name any instruments? Sing the song. If you had to sing the song with your body instead of your mouth, how would you move? Mime actions to the song as it plays. Sing the chorus in rap or opera or rock etc. Draw a picture to go with the song.	
To explore sounds associated with 'sheep' the word and animal	 Make a sound chart Enlarge the sheep template and make an 'eep' word list. Make an 'ee' or 'sh' sound chart or 'eep/eap' rhyming chart Make sheep sounds Listen to the sheep noise CD. Students could attempt their best 'baa'. Students then use 'baas' to express various emotions - happy 'baa', sad 'baa', lonely 'baa'. The class could 'baa' their way through Mary Had a Little Lamb. Extension activities: Create and / or say a tongue twister Try creating and saying tongue twisters like: Shearers shear sheep in shearing sheds Weavers weave woolly Wobbly's warm wool 	Creative Arts MUS1.2 Explores, creates, selects and organises sound in simple structures. - writes a list of 'ee' words - writes a list of 'sh' words - writes a list of 'eep' and 'eap' rhyming words - sings a song using 'baa' sounds
To sculpt a fantasy sheep	Make a fantasy sheep sculpture from junk, paper and paint. Discussion / thought prompts: What is a sculpture? What is fantasy? Can you name a fantasy creature? Do these creatures have any special powers?	Creative Arts Creative Arts VAS1.1 Makes artworks in a particular way about experiences of real and imaginary things.

Introduce the art activity. Make a fantasy sheep sculpture from junk, paper and paint. How could we change a sheep into a fantasy sheep? What if sheep were mean? What if they coloured? What would they look like? What if they vere coloured? What would they look like? What if they vere coloured? What would they look like? What would a fairy sheep look like? What would a rainbow sheep look like? What would a monster sheep look like? What would a monster sheep look like? What would a monster sheep look like? Ask the librarian to put together a selection of books about sheep, wool and animals in general. Students could use the books to do initial sketches of animal features and then use their sketches to work out what their sculpture might look like. Read 'Pete the Sheep' to the class. Use empty pet bottles and junk to create a basic sheep, body shape then cover with papier mache and paint & decorate. Students could also make a kelpie or alpaca. Students write or verbalise a statement about the real and fantasy features of their sheep. Students interview their sheep and write a profile. For example: Name: Favourite food: Lives: Hobby: Special powers: Display finished pieces and profiles. Extension activities:	 uses junk and papier mache to sculpt a fantasy sheep identifies real and fantasy features. Creative Arts VAS1.2 Uses the forms to make artworks according to varying requirements. uses junk and papier Mache to sculpt a fantasy sheep
Make puppets Make puppets by cutting out the sheep template, adding distinguishing features and sticking	

	it on paddle pop sticks. Design and draw Design and draw a wool shearing machine that does not rely on people or a new product made from wool.	
To examine Tom Roberts' 'Shearing the rams'	Find out and talk about Tom Roberts', 'Shearing the rams 1888 - 90.' Use the poster to discuss the painting. Suggested discussion questions: What kind of artwork is it? What do we call a person who creates paintings? Can you name an artist? What is the name of the artist who made this artwork? What is the name of the artist who made this artwork? What might the artist have looked like? How big is the original? Where was it made? Where was it made? Where does the original hang? Process What is it made from? How was the picture made? What process or steps might the artist have taken to do the artwork? How did the artist apply the paint? Subject Play I spyhow many living things can you see? etc What is the painting about? Students could identify the type of sheep being shorn; discuss the tools used and compare this to today; talk about the clothing worn and how the men would be feeling; talk about the role of women; materials used to build the shed. How would it smell? What happens next? Tell the students a little information about the artwork. Information is included in the back of the teachers guide. Colour	Creative Arts VAS1.3 Realises what artists do, who they are and what they make. - contributes to the discussion - uses words like painting, artist, gallery etc - writes a report about 'Shearing the rams' Creative Arts VAS1.4 Begins to interpret the meaning of artworks, acknowledging the roles of artist and audience. - describes what an artist does - gives reasons for the creation of artworks - writes a report about 'Shearing the rams'

	What colours have been used? Are the colours realistic? (Like real life?) Shape If we turned all the objects into shapes e.g. oblongs for people, what are the main types of shapes used? Line Describe the lines in the painting. Direction Turn all the objects into horizontal, vertical or diagonal lines. What direction are most of the lines? Do these lines suggest movement? Light Point to the darkest area. Point to the lightest area. Where is the light coming from? Texture Describe the main textures in the painting. Artist intention Is this a fantasy picture or showing real life? Why was it made? Personal reaction How do you feel when you look at the artwork? What do other people think of the work? Students write a brief report about the painting.	
	Students write a brief report about the painting. Extension activity: Ask students to redraw and paint 'Shearing the rams'. Oil pastels work well too.	
To visit a working farm	Visit a farm Organise an excursion to Tocal (near Maitland), a large working farm, and see the dairy, beef cattle, sheep and horses. Talk to farmers and see what it's like on a farm. Walk through remnant vegetation. Worksheets are available on request or participate in Tocal's 'A Study in Change' program for years K-6, a hands-on experience of life on an Australian	HSIE ENS1.5 Compares and contrasts natural and built features in their local area and the ways in which people interact with these features.

 -	
farm 100 years ago.	- names and describes natural and built
Before you go, locate Tocal and your school on a map. Look at a brochure or web page about Tocal. Use geographical terms to describe Tocal's location and features eg. north, west, city, country.	features on the property - uses geographical terms
At Tocal sketch, write and take digital photos or video to document your visit. Record information about natural and built features, history and people.	- describes what Tocal may have looked like before European settlement
Back at school present a slide show, or display drawings and recap what you discovered on the day.	
Create a Tocal timeline in the same format as the sheep timeline.	- gives reasons for change
Study the sheep timeline and try to see where Tocal's history overlaps.	- names positive and negative changes
Create a personal or family timeline for each student.	 identifies environmental care projects on the
http://www.tocal.com/homestead	property - recognises human
Extension activity:	interaction with Tocal
Have a go at 'The maths of shearing sheep'	has changed with time
A blackline mater can be found in the teachers guide.	- describes what Tocal
	was used for in the
	1800's and today
	HSIE
	CCS1.2 Identifies changes and
	continuities in their own life
	and in the local community.
	- compares and
	contrasts life in the
	Hunter in the 1800's with life in the area
	today
1	louuy

		 describes the significance of Tocal to the people of the Hunter sequences stages and events in the history of Tocal sequences stages and events in their won life
To share discoveries about wool	 Email or write a letter Write a letter or email a country school about your <i>Peep at Sheep</i> experience outlining discoveries and asking the country students to respond with stories about sheep, wool or sheep farming in their area. Extension activities: Mount a display about sheep and wool for the school Put on a lunchtime talk Create a webpage to add to your schools website 	PDHPE COS1.1 Communicates appropriately in a variety of ways. - Drafts, edits and sends a letter - scripts and sends an email
To review the learning activities and conclude A <i>Peep at Sheep</i>	Revisit the 'things we know list' from Task1. Add to the list. Revisit the 'things we want to find out list' from Task1. Tick off the things you now know. Discuss the activities you did and reflect on discoveries. Students complete an evaluation. Suggested prompts: What I wanted to know: What I learnt: The most interesting activity wasbecause I would like to know more about	Why not finish here?

Add a comment, drawing or photo to the visitor's book.	
Use the passport and lamb stamp to conclude your sheepy experience.	
Students are welcome to take home a sample of unprocessed and processed wool from the snap lock bags.	

We would appreciate your feedback. Please complete and fax back the evaluation form in the teachers guide.

Got any better ideas? We would like to keep improving the list so please let us know what you think about the activities. Feel free to add your own ideas for other schools. We will happily include your ideas and credit your contribution.

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