

INTRO TO COTTON LESSON PLAN		PRIMARY YEARS 3-6
Objective	For the students to learn the story of cotton, from the field to the fabric.	
Syllabus links	HSIE and Science and Technology	
Focus	<ul style="list-style-type: none"> The processes involved in growing → end product, with an emphasis on ginning and spinning/weaving stages. Natural environments have been modified to suit particular needs (e.g. land cleared, channels dug to divert water, laser levelling) Environmentally-friendly practices (eg: water recycling) Sources and variety of cotton end products. 	
Materials	Lesson steps	Extension activities
<ul style="list-style-type: none"> Video Cotton samples* Presentation Magic box** Optional Give-aways*** Worksheets and any accompanying resources (if required). <p>* To have samples sent to you send this form to Cotton Australia</p> <p>** Magic Box - Fill up a cardboard box with cotton and non-cotton products e.g. Socks, paper, oil products, pen, woollen jumper, synthetic articles.</p> <p>*** Request Giveaways from Cotton Australia</p>	<ul style="list-style-type: none"> <u>Introduction (5min)</u> <ul style="list-style-type: none"> ➤ Introduce self. ➤ Start by asking the students "What is cotton? - what do you know about cotton?" Discuss. ➤ "Who is wearing cotton?" Discuss how many students are wearing cotton and the variety of items there are. <u>Cotton Story (15min)</u> <ul style="list-style-type: none"> ➤ Using a combination of the presentation and the sample canisters, tell the cotton story from the boll/seed to the end products. <u>Video (10min)</u> <ul style="list-style-type: none"> ➤ Before showing video ask the students to look for something in the video to be discussed afterwards e.g. "What unusual cotton products did you see?" <u>Magic Box (10min)</u> <ul style="list-style-type: none"> ➤ Take items out of box asking, "Is this made from cotton?" Choose a child to come out the front to hold each item in cotton and non-cotton groups. Particular focus is on products containing the oil. <u>Conclusion (5min)</u> <ul style="list-style-type: none"> ➤ Question time - students ask you questions they may have. 	<ul style="list-style-type: none"> <u>Worksheets</u> <ul style="list-style-type: none"> <i>Cotton House</i> <i>Cotton Boll</i> <i>How is cotton made (part 1+2)</i> <i>Wordfind</i> ➤ Can be completed with the students at a later stage <u>Design your own Ad</u> <ul style="list-style-type: none"> ➤ Students work in groups to design an advertisement to show city students where their jeans came from (i.e. jeans are made from cotton, which grows on a plant) ➤ Take along a pair of jeans for each group to use as a prop. ➤ If there are a few groups, make it more interesting by giving each group a different product e.g. cotton seed oil, candle, T-shirt. <u>Weaving activity (30 mins)</u> <ul style="list-style-type: none"> ➤ Using coloured paper strips to demonstrate how threads are woven to make material. (See instruction sheet) <u>Grow your own cotton plant</u> <ul style="list-style-type: none"> ➤ Monitor the growth and graph the results
<input type="checkbox"/> Education kit for teacher/s		

THE COTTON HOUSE

The illustration depicts a cozy, single-story house with a scalloped roofline. The interior is divided into six distinct rooms, each showing a different scene of daily life. In the top left, a child is tucked into bed, surrounded by toys and a sailboat on the wall. The top middle panel shows a bathroom with a child in a bathtub, a sink, and a mirror. The top right panel features a living room with a rocking chair, a dog, and a child. The bottom left panel shows a woman sitting in a chair reading a newspaper, with a child on the floor. The bottom middle panel is a front door with a 'WELCOME' sign and two potted plants. The bottom right panel shows a kitchen with a woman at the stove, a dog, and a cat.

This image shows a single sheet of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page. There are approximately 20 lines visible. The paper appears to be from a notebook or a standard sheet of stationery. There is no handwriting or other markings on the page.



How is cotton made into fabric?

Cut out these squares below and stick them in order on the next page:

Cotton is
woven or
knitted
into fabric

Cotton is
planted and
grows for 6
months

Cotton is
picked

Cotton is
pressed
into a bale

Fabric is
dyed

Cotton is
made into
a module

Cotton is
made into
finished
product

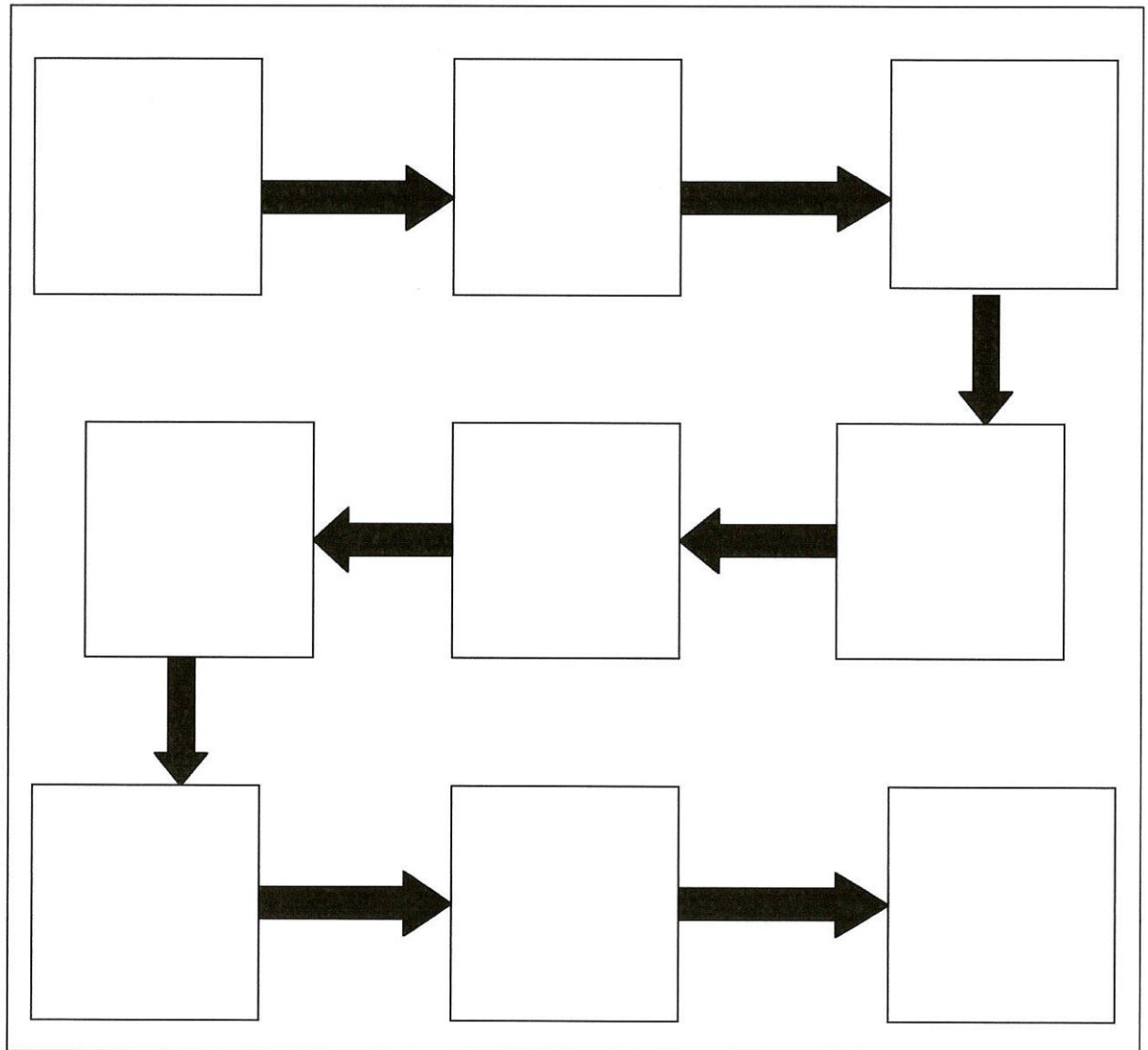
Cotton is
spun into
yarn

Cotton is
ginned



How is cotton made into fabric?

Stick the boxes you have cut out in order on this page below:



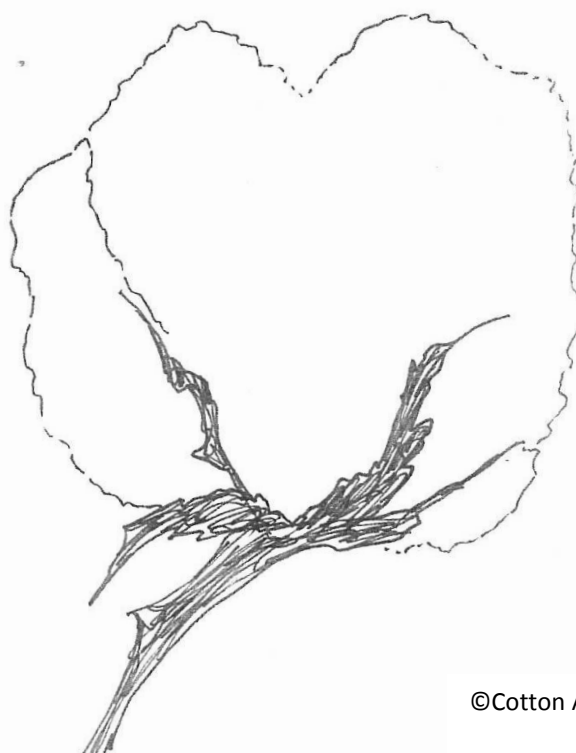
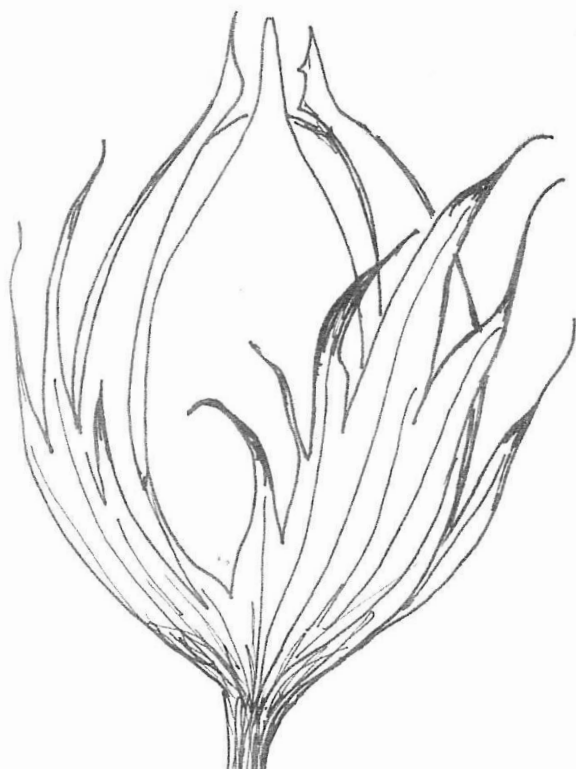
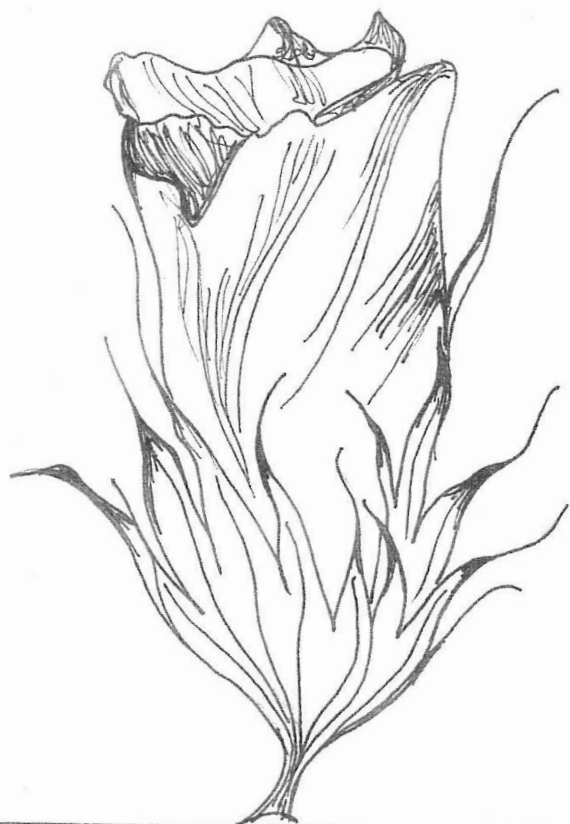
THE COTTON BOLL





COTTON
AUSTRALIA

THE COTTON BOLL





COTTON
AUSTRALIA

COTTON FIND-A-WORD

C	O	O	L	J	E	A	N	S	P
O	L	L	O	B	T	N	I	L	L
T	N	X	L	S	P	U	N	I	A
T	B	L	E	N	D	S	F	V	N
O	W	O	V	E	N	C	L	E	T
N	I	G	S	U	N	I	O	R	S
E	L	U	D	O	M	R	W	S	E
L	W	A	T	E	R	B	E	I	E
A	P	A	P	E	R	A	R	X	D
B	R	E	M	R	A	F	O	I	L

sliver fabric module plant cool cotton bale
farmer gin lint jeans spun oil paper
seed woven sun water flower boll

Weaving Activity

Teacher Background

Weaving is a textile craft in which two distinct sets of yarns or threads are interlaced to form a fabric or cloth. The threads which run lengthways are called the warp and the threads which run across from side to side are the weft or filling.

Lesson Overview

This lesson gives students a basic idea of the weaving process. They can experiment with colour and pattern through choice of paper. At the end of the lesson all students will have a great little weaving that can instantly be used in cotton wall displays and later as greeting cards, bookmarks or to add visual interest to workbooks.

Timing: 30 minutes

Material/ preparation

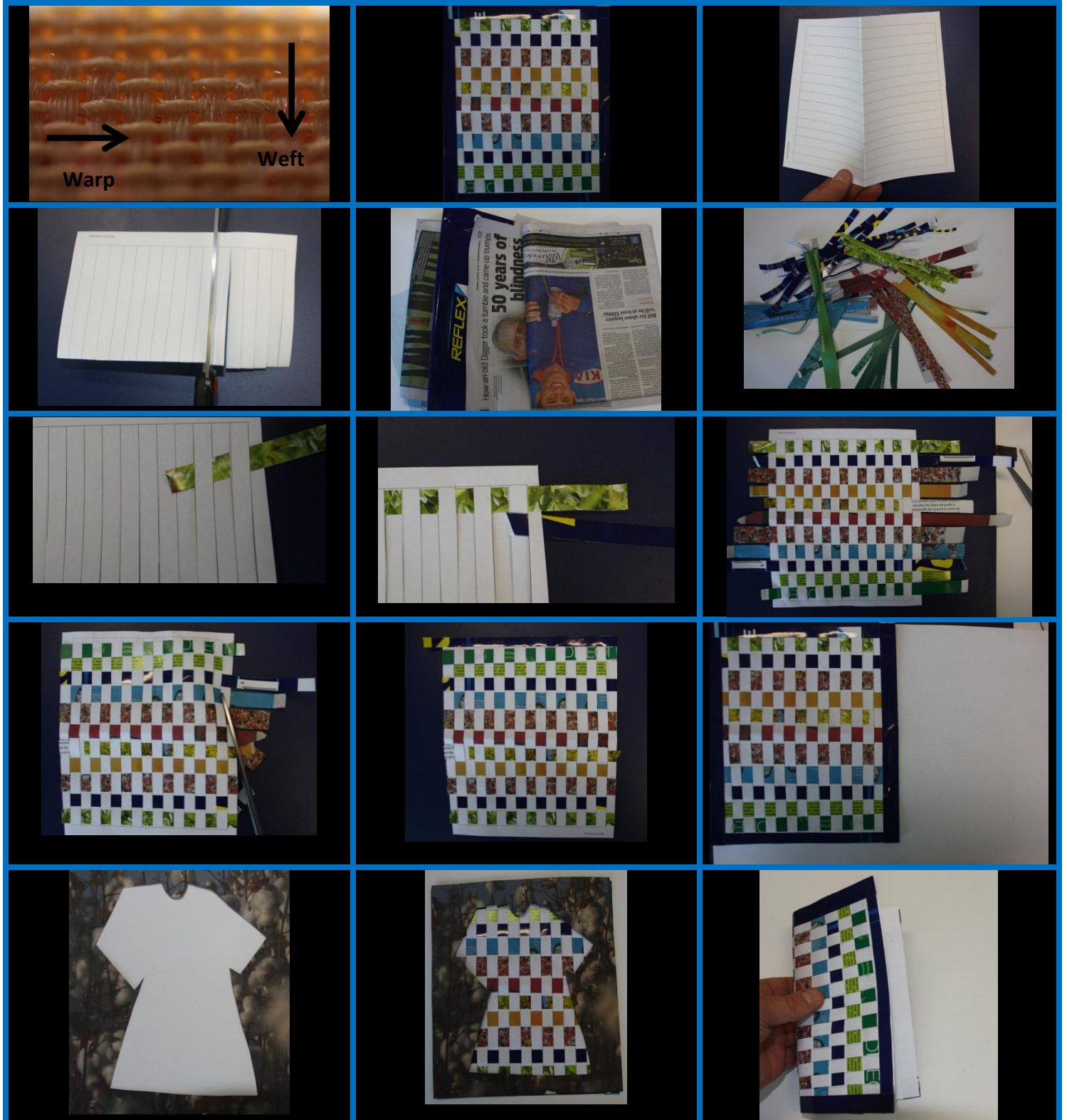
- Paper. Glossy magazine pages, newspaper, catalogues, greeting cards, unexpected paper from the recycling bin. Students may cut their own or you may choose to cut some prior to the lesson.
- Pencil
- Ruler
- Scissors or guillotine
- Print out with grid (page 10). Cut print out in half and give 1 to each student
- Additional blank paper
- glue

Lesson steps

1. Tell students they are going to practice making fabric by weaving paper.
2. Encourage students to look closely at their cotton clothing or samples. What do they notice? Elicit that there are threads which run horizontally (weft) and vertically (warp).
3. Show students an example of weaving and of the paper weaving they will do.
4. Fold the paper in half and cut along the lines. Start from the folded end and be careful to stop where the line ends. Do not cut right to the end!
5. Unfold the paper. This will represent the dyed *warp* threads.
6. Cut strips from magazine pages in straight lines about 1.5 cm wide. It doesn't matter if the pages have text. Students may choose a colour palette for their strips, or use random strips - anything will look good! The strips should be slightly longer than the width of your base sheet. They don't need to cut them to length now. These coloured strips will represent the weft thread.
7. Place the strip over the first vertical bar (warp), then slide it under the second bar. Continue to work across the base sheet in this way, weaving the strip alternately over and under each warp thread.
8. When it is woven all the way across the base sheet, gently ease the strip up to the top of the warp slits.
9. Now take your next strip (weft), and begin to weave it across the base sheet. This time, start by weaving the strip **under** the first vertical bar and **over** the second bar (the opposite way to the first strip).
10. Push the second strip up so it is as close to the first strip as possible. It may be easier to weave the next strip away from the previous strip, then wiggle it up to the previous strip once it is woven.
11. Continue until the weaving is complete.
12. Trim the edges
13. Using 4 strips of similar colour, paste a border around the weaving
14. Using a piece of white paper cut the paper to the same size by tracing around the weaving
15. Glue it to the back of the weaving and display! It could look great interspaced with squares of similar size with interesting things about cotton the students have discovered.

16. Reflection: Do you need glue or tape to hold your placemat together or does it stay together on its own? How is this like how the fabric in your shirt is held together? What qualities of the warp and weft change with weaving? What are your thoughts on the field to fabric process?

Visual Steps



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Ideas for further activities and syllabus links HSIE

The syllabus outcomes that will be met will vary according to how the educator chooses to implement these lessons.

Science and Technology		
Strand	Outcomes	Program coverage
Built Environments	<ul style="list-style-type: none"> * natural environments that have been modified to suit particular needs, e.g. land cleared for farming and altered waterways 	<p>Examine the issues faced when cotton growers manipulate the land and water to improve productivity.</p> <p>Cotton Growers as well as conservationists change the environment in some way.</p>
Products and Services	<ul style="list-style-type: none"> * the people and organisations that change environments * the processes people use to produce goods, commodities and services * products people make, process or grow * the management of materials and resources including waste disposal and recycling * the means by which products are marketed * the materials and resources used to produce goods and commodities. 	<p>Provide opportunities for students to follow the cotton production chain, from growing cotton to processing, spinning and manufacturing it in to a pair of jeans.</p> <p>Students learn that cotton is grown on a plant and not simply manufactured in a factory. In contrast, they discuss manmade fibres.</p> <p>Cotton growers are responsible for managing natural resources e.g. water and soil. Growers set up systems to recycle the water they use for irrigation.</p> <p>Cotton growers have a number of different options for marketing the cotton. The Store is also an example of how the final products can be marketed.</p> <p>The available resources allow students to determine what goes in to growing cotton.</p>
Living Things	<ul style="list-style-type: none"> * how production technologies have changed over time * the environmental consequences of production and consumption 	<p>Originally cotton was hand picked; students follow the history of cotton and the introduction of new machines and technology.</p> <p>The Cotton Industry has faced a number of issues to do with environmental sustainability over the last few years. Students examine these issues.</p>

Ideas for further activities and syllabus links Science and Technology

The syllabus outcomes that will be met will vary according to how the educator chooses to implement these lessons.

Science and Technology		
Stage	Syllabus content	Program coverage
Stage 2	<ul style="list-style-type: none"> *use flow charts and diagrams to demonstrate connections between elements of systems that provide goods and services and to explore consequences when elements change. 	Students construct flow charts to show how cotton is processed.
	<ul style="list-style-type: none"> * acquire information and express a view about Australian, Asian and global environment issues 	Provide students with opportunities to make their own decisions about the environmental issues associated with the cotton industry.
Stage 3	<p>IMPLICATIONS FOR LEARNING & TEACHING</p> <ul style="list-style-type: none"> * encourage students to use a variety of primary and secondary sources to explore their community and thoughtfully analyse their observations 	Use a number of different source materials to make decisions about the cotton industry.
	<ul style="list-style-type: none"> * discuss with students the impact of present and potential environmental problems * clarify and reflect on various perspectives about environmental use, including negative issues * gather information about the need for ecological sustainability and where it is being addressed * investigate some case studies of Australia's global interdependence including some indications of our export and import industries <p>IMPLICATIONS FOR LEARNING AND TEACHING</p> <ul style="list-style-type: none"> * draw attention to and develop a respect for differing viewpoints on the use of natural and built environments 	<p>Address aspects of environmental issues associated with the industry.</p> <p>Students can look at the degradation of river systems and the responsible parties</p> <p>Evaluate ecological sustainability in the cotton industry.</p> <p>Examine the importance of cotton exports and the countries Australia exports to.</p> <p>Evaluate how community groups have similar and differing opinions regarding the environmental issues in the cotton industry.</p>