

## Unit overview

Consumer choices about fashion can have long-term impacts on the environment as well as the communities who produce the raw materials, manufacture the end products and handle the end-of-use waste products.

By exploring the range of resources included in these lesson outlines and exploring current research, students will gain an understanding of, and appreciation for, the relative environmental, economic, political and social impacts of consumer choices in relation to fashion.

Students will also learn how the global wool industry is working to ensure the wool supply chain — from farm to fashion — is addressing these impacts.

Through a range of inquiry strategies presented through the sequence of learning activities, students reflect on and evaluate their findings to propose individual and collective action in response to 'fast fashion' and explain the predicted outcomes and consequences of their proposal.

## Cross-curriculum priority:

### Sustainability (OI.6, OI.7 and OI.8)

This priority is aimed at building capacities for thinking and acting in ways that are necessary to create a more sustainable future. The concept seeks to promote reflective thinking processes in young people and empower them to design action that will lead to a more equitable and sustainable future.

### Links with the Australian Curriculum

This unit links to both strands of the Australian Curriculum: Geography — geographical knowledge and understanding and Geographical inquiry and skills. The extent to which the inquiry sub-strands are applicable will depend on which extension and additional activities are undertaken.

The table below outlines the strands and sub-strands covered in this unit of work.

## General capabilities

### Literacy:

- Composing texts through speaking, writing and creating
- Word knowledge
- Visual knowledge

### Numeracy:

- Interpreting data displays

### Books:

- Understanding ethical concepts and issues
- Reasoning in decision making and actions
- Exploring values, rights and responsibilities
- Critical and creative thinking
- Inquiring — identifying, exploring and organising information and ideas

Strand	Sub-strand	Code	Content descriptions
Geographical knowledge and understanding	Unit 2: Geographies of interconnections	<a href="#">ACHGK068</a>	The effects of the production and consumption of goods on places and environments throughout the world and including a country from North-East Asia.
Geographical inquiry and skills	Observing, questioning and planning	<a href="#">ACHGS063</a>	Develop geographically significant questions and plan an inquiry that identifies and applies appropriate geographical methodologies and concepts.
	Collecting, recording, evaluating and representing	<a href="#">ACHGS064</a>	Evaluate sources for their reliability, bias and usefulness and select, collect, record and organise relevant geographical data and information, using ethical protocols, from a range of appropriate primary and secondary sources.
	Interpreting, analysing and concluding	<a href="#">ACHGS067</a>	Interpret and analyse multivariable data and other geographical information using qualitative and quantitative methods, and digital and spatial technologies as appropriate, to make generalisations and inferences, propose explanations for patterns, trends, relationships and anomalies, and predict outcomes.
	Interpreting, analysing and concluding	<a href="#">ACHGS068</a>	Apply geographical concepts to synthesise information from various sources and draw conclusions based on the analysis of data and information, taking into account alternative points of view.
	Communicating	<a href="#">ACHGS070</a>	Present findings, arguments and explanations in a range of appropriate communication forms, selected for their effectiveness and to suit audience and purpose; using relevant geographical terminology, and digital technologies as appropriate.
	Reflecting and responding	<a href="#">ACHGS071</a>	Reflect on and evaluate findings of an inquiry to propose individual and collective action in response to a contemporary geographical challenge, taking account of environmental, economic, political and social considerations; and explain the predicted outcomes and consequences of their proposal.

## Achievement standard

The sequence of lessons in this unit of work provides opportunities to gather information about students' understanding related to the sections in bold in the achievement statement below:

By the end of Year 9, students explain how geographical processes change the characteristics of places. They **analyse interconnections between people, places and environments and explain how these interconnections influence people, and change places and environments**. They predict changes in the characteristics of places over time and identify the possible implications of change for the future. Students **analyse alternative strategies to a geographical challenge using environmental, social and economic criteria**.

Students use **initial research to identify geographically significant questions to frame an inquiry**. They **evaluate a range of primary and secondary sources to select and collect relevant and reliable geographical information and data**. They **record and represent multi-variable data in a range of appropriate digital and non-digital forms**, including a range of maps that comply with cartographic conventions. **They use a range of methods and digital technologies to interpret and analyse maps, data and other information to propose explanations for patterns, trends, relationships and anomalies across time and space, and to predict outcomes**.

Students synthesise data and information to draw reasoned conclusions. They **present findings, arguments and explanations using relevant geographical terminology and digital representations in a range of appropriate communication forms**. Students **propose action in response to a geographical challenge, taking account of environmental, economic and social factors, and predict the outcomes and consequences of their proposal**.

Source: [Australian Curriculum, Assessment and Reporting Authority \(ACARA\)](#)

## Background information

The fashion industry has a huge impact on the environment; where once we owned few items of clothing and repaired damaged garments, now clothing purchases are frequent, and damaged clothing is discarded — Australians now consume, on average, 27kg of clothing per person, much of which is worn only a few times, some of which is thrown out with tags still attached. The fashion industry, through clever marketing and high turnover has created what has been referred to as 'consumptionism' – the turning of useful products into products we use up – and the more quickly they can be 'used up', the more urgently they need to be replaced; creating a cycle of consumption not witnessed before.

This unit touches on these issues as well as exploring the impact of the fashion industry on people and places, and the stark difference between where a product is produced and where a product is consumed.

## Teaching strategies

### Think – Pair – Share

The Think-Pair-Share (T-P-S) technique is designed to encourage students to reflect upon, share and discuss ideas around a particular topic, issue or problem. This strategy can be used to gauge conceptual understanding, filter information, draw conclusions and encourage peer learning among students. Results can also signal to you that you may need to re-explain content or provide further support for students.

T-P-S breaks the lecture to allow students time to reflect on challenging content and negotiate meaning with each other or discuss their proposed solutions. The strategy provides a diagnostic point to ensure students are on track.

Source: [The University of Queensland Teaching Toolkit Series](#)

### Jigsaw technique

The Jigsaw technique is designed for cooperative learning in small groups. Students are provided the opportunity to become 'experts' in a particular subject, and share that knowledge with their peers.

This technique promotes both self and peer teaching, which requires students to understand the material at a deeper level and engage in discussion, problem solving, and learning.

The Jigsaw technique can help students to:

- develop expertise in a concept, topic or principle,
- apply the language of the discipline, and
- practice self and peer teaching.

Source: [The University of Queensland Teaching Toolkit Series](#)

## The minute paper

The minute paper is designed to take a minute to complete. It is commonly used at the end of class to diagnose students' understanding of key concepts or topics, but can also be used during a lesson.

Typically, students are asked to identify what they found most useful and what they found most challenging during the lesson to help identify if further support is needed. Results of the student responses can be discussed before or at the start of the next lesson as group feedback, and strategies can be offered for remediation if needed.

The minute paper strategy can:

- help identify student misconceptions early instead of at the end of a unit of work
- provide an opportunity to deliver additional resources or support in a timely way
- let students know you are invested in their learning needs.

Source: [The University of Queensland Teaching Toolkit Series](#)

## Mind mapping

Mind mapping is a visual exercise to help students organise and structure complex content. It focuses on developing a hierarchy of information to work out key components, their subsets and relationships to each other. Students can focus on one central word or idea and use branches to depict the importance of ideas.

Mind maps can be used for individual or group activities or a mixture of both to help with brainstorming, problem solving and memory. Mind maps can:

- identify and prioritise content
- identify gaps in understanding
- unlock creative ideas or generate new ones
- use colour, images and visual stimuli to group ideas, create meaning and link to memory

Source: [The University of Queensland Teaching Toolkit Series](#)

The following learning experiences can be taught as stand-alone lessons or incorporated into a full unit of work on sustainable fashion choices.

Strand	Content descriptions
Lesson 1: Understanding fast fashion	<ul style="list-style-type: none"><li>• Explore the environmental impacts of consumer products (i.e. fashion) on the places that make the product and receive the waste at the end of its life.</li></ul>
Extension activity 1: Peer survey	<ul style="list-style-type: none"><li>• Through a digital survey, plan, collect, record, organise, interpret and analyse qualitative and quantitative data and information about peer fashion consumption and draw conclusions about potential environmental and social impacts.</li></ul>
Extension activity 2: Jigsaw activity	<ul style="list-style-type: none"><li>• Gain a deeper understanding of the environmental impacts of the consumer product on the places that produce the raw materials, make the product, and receive the wastes at the end of its life.</li></ul>
Lesson 2: Fibres of choice	<ul style="list-style-type: none"><li>• Explore the wool supply chain and the impacts of wool products on the places that produce the raw materials, make the product, and receive the wastes at the end of its life.</li><li>• Collect relevant information from secondary sources.</li><li>• Interpret and analyse information.</li><li>• Present an oral response supported by visual aids.</li><li>• Examine and explain the environmental, economic and social factors that need to be considered around fashion choices.</li></ul>
Lesson 3: Sustainable fashion	<ul style="list-style-type: none"><li>• Examine the environmental, economic and social factors that need to be considered when addressing the impacts of fast fashion.</li><li>• Collect geographical information and data from secondary sources to support an argument about sustainable fashion.</li><li>• Test conclusions by considering alternative points of view about the responsibility for a sustainable fashion industry.</li><li>• Present an oral response, supported by visual aids to communicate a reasoned argument about sustainable fashion and respond to questions.</li><li>• Explain how the application of geographical concepts and methods has contributed to deep understanding of the causes of, and solutions to, fast fashion.</li></ul>

## Pre-lesson preparation, materials and equipment

The resources listed below provide ample background to carry out these lessons and answer a range of questions students may pose during the unit.

## Useful resources:

### LEARN ABOUT WOOL secondary factsheets

- [Wool – the fibre](#)
- [Sheep – the wool producers](#)
- [Sheep breeds](#)
- [Wool production in Australia](#)
- [The woolgrower](#)
- [Wool production](#)
- [Shearing](#)
- [Wool – from farm to fashion](#)
- [The wool market](#)
- [Selling and buying wool](#)

### LEARN ABOUT WOOL poster

- [Wool processing poster](#)

### Additional factsheets

- [The Australian Wool Supply Chain](#)
- [IWTO – Wool and the environment](#)
- [IWTO Wool is biodegradable](#)
- [IWTO Wool life cycle assessment](#)
- [Wool facts| Wool is 100% natural and renewable](#)
- [Wool facts| Measuring wool's environmental footprint](#)
- [Wool is 100% biodegradable](#)

## Videos

- [WAR ON WASTE SERIES 3 Episode 1: Fast fashion \[ Climate change\] |Full documentary | Reel Truth Opting for wool can have a positive impact on the planet](#)
- [Two jumpers – what's the difference?](#)
- [Wool biodegradability study](#)
- Behind the News: [Fashion waste](#)
- The Feed – [Fast fashion: Sweatshops](#)
- [The true cost](#) movie and website
- [This is wool](#)
- [Fashion-scape: Forever Tasmania](#)

## Useful links

- [Wool – Issue 4 – The Focus The Cost of fashion](#)
- [IWTO – Wool life cycle assessment](#)
- [IWTO – Re-use and recycling](#)
- [The Woolmark Company YouTube videos](#)
- [Beyond the Bale, Australian Wool Innovation \(June 2018\)](#)
- [Wool.com – Production systems and eco-credentials](#)
- United Nation's [Ethical Fashion Initiative](#)
- [The Wardrobe To Die For](#) | Lucy Siegle | TEDx

**Note:** Many of the resources listed above and a range of other resources are freely available to download online in the [LEARN ABOUT WOOL Resource library](#).

Go to [learnaboutwool.com](http://learnaboutwool.com) to order a free copy of the LEARN ABOUT WOOL kit, which contains hard copies of all primary and secondary factsheets, posters, raw and processed wool, yarn and fibre samples.

## Lesson objective

In this lesson students start to explore the environmental impacts of consumer fashion choices, by investigating the concept of 'fast fashion'.

### Students will have the opportunity to:

- develop an understanding of how people can change and impact on places through their choices, in this case, fast fashion
- pose complex questions of significance designed to challenge and expand understandings of fast fashion issues
- demonstrate a growing understanding of the ways in which production and consumption affect different places.

## Lesson focus

The focus of this lesson is to encourage students to adapt their knowledge of what they currently know about fashion production and consumption to incorporate an understanding of the impacts of the fast fashion phenomenon on the places that produce the raw materials, make the product, and receive the wastes at the end of its life.

## Setting the context

The fashion industry is the second most polluting industry world-wide (*The True Cost*, Andrew Morgan), with Australians being the second largest consumer of fabric and textiles per person in the world. (*Fashion waste*, Behind the News).

This lesson provides opportunity for students to develop a working definition of fast fashion, which will encompass early understandings of the human and environmental implications of consumer choices. As a working definition it will be refined and re-worked across the lessons in this learning sequence.

## Introduction

To tune students into the idea of fashion consumption before introducing the concept of 'fast fashion', start the lesson by generating discussion around students' current fashion choices.

Consider asking question such as:

- How many items of new clothing have you purchased during the past three months? (Consider providing a range of options to choose from — e.g. less than three items, 3–5 items, more than five items.)
- Have you any items in your wardrobe you have not worn more than three times?
- What happens to your clothes when you no longer wear

them? (If necessary, prompt students with the following options — discard in rubbish, pass onto friends, siblings or second-hand clothing stores, recycle as rags).

- Do you make conscious decisions about your fashion purchases? (Ask those who respond positively to explain their decision-making process).

Explain to students during the next few lessons they will be investigating the phenomenon of fast fashion.

Following on from the initial discussion, ask students to write their own definition for 'fast fashion'.

Spend time reviewing and collating students' initial thoughts.

## Body of lesson

1. Provide each student with the *5-3-1 Fast fashion* worksheet.
2. Explain that you will be watching three videos that explore the concept of 'fast fashion' and its impact both on the people and places that produce the fashion items and the places that manage the waste produced at the 'end of life' for each garment.
3. Ask students to record their observations on their *5-3-1 Fast fashion* worksheet as they watch the videos. Ask students to record five facts, three insights and one question for each video.
4. You may wish to discuss the difference between open and closed questions, and how can we design open-ended questions to prompt greater depth of thought.
5. Share with students the following videos and read the article *Slowing down Fast Fashion* in the [June 2018 edition of Beyond the Bale](#):
  - [Behind the News: Fashion Waste](#) (3 min 19 sec)
  - The Feed — [Fast fashion: Sweatshops](#) (5 min 34 sec)
  - [WAR ON WASTE: Fast fashion \( Climate change\) |Full documentary | Reel Truth](#) (0.00 —12.50 min and 30.15 —42.00 min)
6. Use a think-pair-share (T-P-S) activity as a reflective strategy using the information collected on their *5-3-1 Fast fashion* worksheet.
7. Break students into pairs to discuss their facts, insights and questions. Ask each pair to share with the class two points of interest from their discussion about the videos.

8. Explore the questions recorded on the 5–3–1 worksheets and group according to the focus. Return to these questions later in the learning sequence to see what insights and understandings have developed during this learning sequence.
9. To extend the class discussion **after** sharing key ideas from the 5-3-1, consider the following:
  - What is fast fashion? How are our definitions extended or challenged by these videos?
  - What are the pros and cons of fast fashion?
  - What are the human, geographic and environmental issues highlighted by these short films? (These may need drawing out and exploring further through the discussion).
  - Why is addressing fast fashion challenging?
  - Who can make a difference?

Encourage students in each group to discuss what they are drawing and why.

## Conclusion

To conclude the lesson, ask students to prepare a fast fashion mind map graphic organiser demonstrating their understanding of key issues of fast fashion including:

- the environment
- geographic locations (in particular similarities or differences between where fashion is produced and where it is consumed)
- what happens to people along the fast fashion supply chain.

## Links to the Australian Curriculum:

- The effects of the production and consumption of goods on places and environments throughout the world and including a country from North-East Asia ([ACHGK068](#))
- Develop geographically significant questions and plan an inquiry that identifies and applies appropriate geographical methodologies and concepts ([ACHGS063](#))
- Represent multi-variable data in a range of appropriate forms, for example scatter plots, tables, field sketches and annotated diagrams, with and without the use of digital and spatial technologies ([ACHGS065](#))
- Reflect on and evaluate findings of an inquiry to propose individual and collective action in response to a contemporary geographical challenge, taking account of environmental, economic, political and social considerations; and explain the predicted outcomes and consequences of their proposal ([ACHGS071](#))



## Extension activity 1: Peer survey

Allocate students into small groups and ask them to design a survey to collect, collate and present data about fashion consumption and the awareness of the impacts of fast fashion among their peers.

Explain that each group will be asked to present the results of their survey to an audience (class, assembly, year groups or school newsletter) in a format of their choice (e.g. poster, infographic or oral presentation), but each presentation needs to incorporate both quantitative and qualitative data.

Discuss with students the importance of careful question design in collecting, analysing and presenting meaningful data.

Encourage students to include a range of 'structured' or 'closed' and 'non-structured' or 'open' questions.

Students may like to use the online survey tool — [SurveyMonkey](#) — to develop and distribute their survey and collect and collate their feedback.

The [SurveyMonkey website](#) contains a range of useful resources to guide students in developing a meaning survey.

**Note:** Infographics are a visual representation of data. When students create infographics, they are using information, visual, and technology literacies.

There is a variety of freely-available tools to create infographics online, such as [Canva](#). Most online infographic tools provide templates students can use for their own purposes. Students can adapt available infographic templates and add their own content, images, designs, etc.

The following article from EducationHQ Australia provides more information on using infographics in the classroom: <https://educationhq.com/news/using-infographics-in-class-33589/> (Accessed 4 June 2018)

## Conclusion

Ask students to reflect on their survey and results, specifically in terms of collecting information from secondary sources and presenting it in meaningful ways. Ask them to consider ethical protocols involved with data collection (such as confidentiality, informed consent, citation and integrity of data), the quality of their questions and the insights gained, the value of data in terms of numbers of responses etc. and the way in which their findings have been communicated.

Focusing on aspects of their data collection and communication of findings, ask students to organise their reflections according to what:

- they would remove or do differently — **Stop**

- they would like to do next time (that they didn't do this time) to improve the quality of their data collection and how they shared their findings — **Start**
- they believe they did well — **Continue**

## Links to the Australian Curriculum:

- Develop geographically significant questions and plan an inquiry that identifies and applies appropriate geographical methodologies and concepts ([ACHGS063](#))
- Evaluate sources for their reliability, bias and usefulness and select, collect, record and organise relevant geographical data and information, using ethical protocols, from a range of appropriate primary and secondary sources ([ACHGS064](#))
- Represent multi-variable data in a range of appropriate forms, for example scatter plots, tables, field sketches and annotated diagrams, with and without the use of digital and spatial technologies ([ACHGS065](#))
- Interpret and analyse multi-variable data and other geographical information using qualitative and quantitative methods, and digital and spatial technologies as appropriate, to make generalisations and inferences, propose explanations for patterns, trends, relationships and anomalies, and predict outcomes ([ACHGS067](#))
- Present findings, arguments and explanations in a range of appropriate communication forms, selected for their effectiveness and to suit audience and purpose; using relevant geographical terminology, and digital technologies as appropriate ([ACHGS070](#))
- Reflect on and evaluate findings of an inquiry to propose individual and collective action in response to a contemporary geographical challenge, taking account of environmental, economic, political and social considerations; and explain the predicted outcomes and consequences of their proposal ([ACHGS071](#))

## Extension activity 2: Jigsaw activity

**Note:** This extension activity is based on the full-length (92min) documentary *The True Cost*, directed by Andrew Morgan. There is a small cost (AU\$9.99 as at 5 October 2020) associated with downloading and viewing this film. A short free-to-air trailer can viewed on [The True Cost website](#).

Filmed in countries all over the world, from the brightest runways to the darkest slums, and featuring interviews with the world's leading influencers including Stella McCartney, Livia Firth and Vandana Shiva, *The True Cost* is an eye-opening journey around the world and into the lives of the many people and places behind our clothes.

Use a [Jigsaw co-operative learning activity](#) to help students digest the key messages from *The True Cost* film.

If you are unable or unwilling to purchase this film, students can use a range of other resources to research their area of expertise. These resources are listed at the start of the unit or on the resource panel of the LEARN ABOUT WOOL lesson plan page.

The Jigsaw technique is designed for cooperative learning in small groups. Students have the opportunity to become 'experts' in a particular subject, and share their knowledge with their peers. This technique promotes both self and peer teaching, which requires students to understand the material at a deeper level and engage in discussion, problem solving, and learning.

Organise students into five groups in preparation for the activity. Give students in each group an identifying item (one per student — e.g. a coloured dot, sash, popsicle stick etc). Explain that this group is their 'expert' group and each 'expert' group will be researching a given topic relating to fast fashion. Following the research phase students will be required to circulate and share their expertise with students from other groups.

Allocate each expert group with one of the following topics relating to fast fashion:

- **Background information and context**, for example, important ideas and terms used, key facts and figures, data that helps to illustrate the issues, general information about the fashion industry (consumption rates, further defining what fast fashion is etc.)
- **Geographic factors** — students will explore the 'supply chain' from raw material through to final product and investigate potential impacts relating to geography.

- **Human factors** — for example, this may include information about health, living conditions, breakdown of family units, violence, and death resulting from working in the fashion supply chain. Of particular note will be the implications in developing countries.
- **Economic factors** — students will explore issues relating to economic factors, for example the variation in income for people involved in each stage of the supply chain, from raw material to consumption and waste management.
- **Environmental factors** — students will explore the impacts of fast fashion on the environment at various stages along the supply chain.

In groups, allow students to watch *The True Cost*, encouraging students to record and discuss their observations relating to their topic. This may require several lessons due to the length of the film.

As a group encourage students to determine how they will explain their topic to other groups — support groups to ensure each group member feels confident they can share their 'expertise', with others from other groups. Explain that they will have a maximum of five minutes to share their key points with others in the next step.

Create new groups, ensuring each new group has a least one member from the original 'expert' group. Students can check if they have completed this step correctly by making sure they have an identifying item from each original group represented.

Allow students enough time to share their expertise and ensure all members of the group have a shared understanding of each topic. Ask students to connect the various pieces of the fast fashion jigsaw to see how they interact.

## Conclusion

The film used many primary and secondary sources of information to create and share an understanding of the fashion industry and the implications of the issues associated with fast fashion. You may wish to spend some time discussing what bias is and why it can be a challenge in presenting ideas and arguments, as well as ensuring students have a consistent understanding of the difference between primary and secondary sources of information.

Initially through class discussion, assist students to think deeply about:

- the range of information sources used, both primary and secondary, and how they were used
- whether they were given a balanced view of the fashion industry issues and fast fashion throughout this film
- if the filmmakers presented a wide range of views. Support students to consider the range of views presented and consider if any perspectives were missing.
- whether the sources of expertise and information used were reliable and unbiased
- if all the issues were explored in an objective way.

Ask students to complete a reflection, focusing the strengths and weaknesses of the film in terms of presenting a complex issue in an informative and balanced way. This may be presented as a table.

## Links to the Australian Curriculum:

- Develop geographically significant questions and plan an inquiry that identifies and applies appropriate geographical methodologies and concepts ([ACHGS063](#))
- Evaluate sources for their reliability, bias and usefulness and select, collect, record and organise relevant geographical data and information, using ethical protocols, from a range of appropriate primary and secondary sources ([ACHGS064](#))
- Represent multi-variable data in a range of appropriate forms, for example scatter plots, tables, field sketches and annotated diagrams, with and without the use of digital and spatial technologies ([ACHGS065](#))
- Reflect on and evaluate findings of an inquiry to propose individual and collective action in response to a contemporary geographical challenge, taking account of environmental, economic, political and social considerations; and explain the predicted outcomes and consequences of their proposal ([ACHGS071](#))

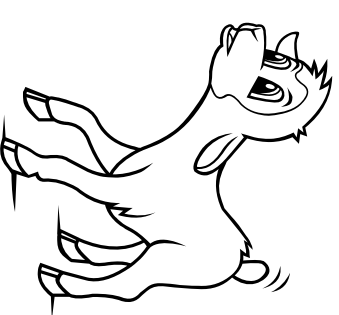
# 5-3-1 FAST FASHION WORKSHEET



<i>Five facts</i>	<i>Three insights</i>	<i>One question</i>

*As you watch each video, record your observations in the table above.*

Name: .....



## Lesson objective

In this lesson students will explore the wool supply chain and the impacts of wool products on the places that produce the raw materials, make the product, and receive the wastes at the end of its life.

### Students will have the opportunity to:

- explore the environmental impacts along the wool supply chain — from farm to fashion
- investigate the inherent qualities of the wool fibre that relate to its environmental impacts as a textile product and fashion choice
- consider the role of life cycle assessment (LCA) in determining sustainable fashion choices.

## Lesson focus

The focus of this lesson is to encourage students to consider the wide-reaching impacts of their fashion choices and explore some of the factors to consider when they make purchasing decisions.

## Setting the context

Issues associated with the fashion industry are many, ranging from the production of raw materials used in textiles (e.g. synthetic fibres versus natural fibres and plant versus animal fibres) and the processes and technology used to create garments (and the conditions under which textiles and garments are made), their care during use and management at their end of life (i.e. waste management).

The fashion industry is the second most polluting industry in the world (*The true cost*, Andrew Morgan) with 85% of clothing in Australia ending up in landfill (*Fashion waste*, Behind the news)

Life cycle assessment (LCA) is one tool that attempts to tell the environmental story of products across the entire supply chain, from including raw material acquisition, manufacturing, use, recycling, end-of-life and disposal.

Wool is a natural, biodegradable and renewable fibre produced by sheep. Australia produces 90% of the world's fine apparel wool, producing more than 325 million kilograms of greasy wool in 2016/17 (AWI, 2017).

Australian woolgrowers are renowned for their sustainable farming and animal welfare practices, with many woolgrowers combining wool production with a sustainable mix of other farming and land management activities.

However, about 98% of the wool produced in Australia is exported, mostly to China.

Wool processing and manufacturing occurs across northern hemisphere countries such as China, India, Vietnam, Turkey

and Italy. Consumption of wool and wool blend products also occurs mostly across the northern hemisphere in Europe, Asia and the United States (Source: [AWI Strategic plan 2016–19](#))

The wool industry is investing in an accurate and scientifically credible assessment of wool's environmental footprint from the farm, through all supply chain stages to wool's ultimate biodegradation back into the soil. (Source: [IWTO Wool life cycle assessment](#))

## Introduction

Explain to students in this lesson they will be exploring ways they can make informed decisions about fashion consumption.

To begin the lesson, ask students to review their working definitions of fast fashion from the previous lesson.

Review with students some of the ways they can make more responsible fashion choices, recording key points as students share them.

Explain to students that during this lesson they will be exploring the concept of life cycle assessment (LCA) as a way to support sustainable fashion choices, using wool as an example.

Ask students if anyone can explain what they think the term life cycle assessment means.

Record students' suggestions, but explain that you will review their responses at the end of the lesson.

## Body of lesson

1. Play the video [This is wool](#) (1 min 20 sec).
2. Use the following questions to generate discussion about the video:
  - Where is most of the world's wool produced? (Answer: Australia is the biggest global producer of clean wool. AWI, 2017)
  - Where is most of Australia's raw wool sold? (Answer: About 98% of Australia's wool is exported — 80% is exported to China)
  - What processes does wool undergo from farm to fashion? (see the *Wool processing* poster for a simple explanation of the wool supply chain)
  - What are benefits of wool mentioned in the video that minimise its impact on the environment? (Answer: Wool is natural, renewable and biodegradable).
3. Explain that during the next few lessons students will be exploring the wool supply chain in preparation for a debate about sustainable fashion choices at the end of this unit.

4. Tell students you will be using a [Jigsaw co-operative learning activity](#) to build students' knowledge of the wool supply chain. The Jigsaw technique is designed for cooperative learning in small groups. Students have the opportunity to become 'experts' in a particular subject, and share their knowledge with their peers. This technique promotes both self and peer teaching, which requires students to understand the material at a deeper level and engage in discussion, problem solving, and learning.
5. Organise students into five groups in preparation for the activity. Give students in each group an identifying item (one per student — e.g. a coloured dot, sash, popsicle stick etc). Explain that this group is their 'expert' group and each 'expert' group will be researching a given topic relating to wool and the wool supply chain.
6. Following the research phase, students will be required to circulate and share their expertise with students from other groups.
7. Share with students the [Learn About Wool: Wool processing poster](#) and briefly outline the key steps in the wool supply chain. Explain that the following investigation will also include the use and end-of-life stages of a wool garment.
8. Allocate each expert group with one of the following topics:
  - Wool production (on farm)
  - Wool harvesting and selling (farm to receival store)
  - Wool processing (from farm to fashion)
  - Wool fabrics and properties
  - Measuring the wool supply chain footprint
9. Provide students with access to the resources listed at the start of this unit and encourage them to search the [Learn About Wool Resource Library](#) for more information.
10. Suggest students organise their information using a graphic device such as a fishbone graphic organiser, a table, or another appropriate form to represent their information from a range of sources. As a group encourage students to evaluate their information sources for their reliability, bias and usefulness — support groups to ensure each group member feels confident they can share their 'expertise'; with others from other groups. Explain that they will have a maximum of five minutes to share their key points with others in the next step.
11. Following the research and information collection and organisation session, create new groups, ensuring each new group has a least one member from the original 'expert' group. Students can check if they have completed this step correctly by making sure they have an identifying item from each original group represented.
12. Allow students enough time to share their expertise and ensure all members of the group have a shared understanding of each topic.
13. Ask students to connect the various pieces of the wool supply chain to see how they interact.

## Conclusion

Conclude the lesson with a 'minute paper' as a reflective strategy to identify areas where further enquiry may be required.

Explain to students they will have one minute to reflect on what they have learned about the wool supply chain and how the life cycle assessment process can inform more sustainable fashion choices. Let students know you will collect their responses, which will help inform the content of the next lesson.

Hand out a piece of paper to each student and ask them to:

- list three significant impacts of fast fashion
- list two ways wool minimises these impacts
- list one question or concern that remains in their minds about making sustainable fashion choices.

## Links to the Australian Curriculum:

- Evaluate sources for their reliability, bias and usefulness and select, collect, record and organise relevant geographical data and information, using ethical protocols, from a range of appropriate primary and secondary sources ([ACHGS064](#)).
- Represent multi-variable data in a range of appropriate forms, for example scatter plots, tables, field sketches and annotated diagrams, with and without the use of digital and spatial technologies ([ACHGS065](#))

## Lesson objective

Students will explore the effects of the production and consumption of goods on places and environments throughout the world through a classroom debate.

### Students will have the opportunity to:

- further explore the environmental impacts of the consumer product on the places that produce the raw materials, make the product, and receive the wastes at the end of its life
- gather relevant data from a range of primary and secondary sources
- test conclusions by considering alternative points of view about an area of inquiry
- present an oral response, supported by visual aids including maps and graphs, to communicate a reasoned argument about a contemporary geographical issue, and responding to questions.

## Lesson focus

The focus of this lesson is to encourage students to demonstrate an understanding of the multiple viewpoints and challenges associated with fast fashion by synthesising information from various sources, drawing conclusions, taking into account alternative points of view and presenting their findings, arguments and explanations in the form of a classroom debate.

## Setting the context

Given the issues explored during the previous lessons in this learning sequence, this lesson (or series of lessons) is designed to give students the opportunity to dig deeper into the issues relating to fast fashion, and focus on prospective solutions within the context of industry versus consumer responsibility.

Encourage students to reflect on what they have learned about raw materials, such as wool, as they develop their cases for sustainable fashion choices.

Students can draw on previously used resources, as well as others identified in this package. Additional research will be required to present reasonable, coherent and well-examined arguments relating their side of the topic.

## Introduction

Play the video [Fashion-scapes: Forever Tasmania](#).

Draw students' attention to the conversation between the interviewer (Livia Firth) and wool expert Dr Beverley Henry) towards the end of the view (11:12) about the fashion industry.

*"If you have fewer garments that last longer and are of a higher quality you do more for the sustainability of the whole fashion industry than buying new garments every season."* Dr Beverley Henry

Explain to the students they will be participating in a debate about the fashion industry. It may focus on one of the following topics, or it may be negotiated:

Potential debate topics:

*"Sustainable fashion is the responsibility of the fashion industry – not the responsibility of the consumer."*

*"Consumers influence the environmental impact of the fashion industry, one purchase at a time"*

Alternatively, you may negotiate with students to establish a topic or topics of significance suitable to debate. Begin with the questions already posed by students, in the 'minute paper' from the previous learning experience in which they focused on one question or concern that remained in their minds about making sustainable fashion choices.

Return also to the questions posed on their *5-3-1 Fast Fashion* worksheet during Lesson 1; these questions may form the basis of an interesting topic, but may need to be remodeled or rewritten to reflect new understandings about the complex issues surrounding the fashion industry.

Debate topics may be written as a statement or a question, either of which will require students to demonstrate a sound understanding of the issues of fast fashion including those relating to sustainability. They will be open-ended and provide scope for argument and meaningful examination of the geographic issues associated with the production, consumption and disposal of fashion.

As a class, it will be possible to agree on more than one debating topic. Class size will determine the number of debating teams and therefore the scope for a number of topics.

## Body of lesson

1. After determining the debate topic/s, establish teams of three and negotiate the topics teams will address. When students are in teams, assist teams to determine the structure of their speakers. Introduce students to debating protocols and the structure of the speakers for the affirmative and the negative. Resources are available from the [Debaters Association of Victoria website](#).
2. Emphasise that while individual research and information gathering will occur, teams will have to work together to structure and organise their arguments, share resources, help develop props and support material for use during the debate, as well as plan for and prepare their rebuttals.



3. In preparing for their debate students will need to:
- ensure their case is well researched by planning and conducting an information search that covers the breadth of their arguments
  - evaluate resources for usefulness or bias to ensure rigour in their case
  - use both primary and secondary sources of information (such as maps, photographs, interviews, graphs tables, reports and data), including any already accessed and studied through the course of this learning sequence. (Where the survey extension activity on page 9 has been completed, students may wish to draw on and use this data in their debate.)
  - use at least one prop or visual aid during their debate, such as scatter plots, tables, annotated diagrams, maps etc. to support their team's arguments
  - interpret and analyse information to create persuasive and reasoned arguments
  - base their case on a clear definition of fast fashion – this may be developed from both their working definitions, as well as the mind map constructed during Lesson 1.
  - present an individual or collective solution to complement or support their selected topic.
4. Give students time to work and re-work their arguments, prepare their case, and refine their speakers' roles and notes. Notes, records of resources and references will need to be kept for submission, as well as all speakers' notes and props. Emphasise the need to focus on positive arguments – both for and against the topic, and to use facts to present a winning case.
5. Present the debates in front of an audience and an adjudicator. Provide feedback based on the strength of evidence and quality of argument. This may be done with pre-established criteria and include peer assessment, and incorporate reflective discussion about the powerful and convincing arguments put forward by both sides of the debate.

## Conclusion

To conclude the lesson/s ask students reflect on what they have learned about the sustainability of the fashion industry, its effect on the communities in which fibre and fashion is produced, processed, designed and consumed and the impact of fashion as a waste product.

Ask students to review their mind maps; taking time to flesh out their mind maps using colour, building levels of understanding, and incorporate images to ensure it represents their full understanding of the issues associated with fast fashion and the future sustainability of the fashion industry. Share and discuss how students' mind maps have developed and changed since their initial draft at the beginning of the learning sequence.

Ask students to re-draft and write a current definition of *Fast Fashion*, again reflecting on the changes of understanding that has taken place.

The final focus, after sharing key reflections and learnings on from their mind map, is to ask students to propose or endorse an individual or collective action in response to fast fashion. This may be a solution presented throughout the debates, or an alternative proposal based on independent and reflective thought.

Ask students to describe their proposed solution to an element of the fast fashion phenomena and to justify why it is an effective and reasonable proposal. In doing this students will identify the specific environments, geographic, social or human issues the solution will address.

## Links to the Australian Curriculum:

- Represent multi-variable data in a range of appropriate forms, for example scatter plots, tables, field sketches and annotated diagrams, with and without the use of digital and spatial technologies ([ACHGS065](#)).
- Apply geographical concepts to synthesise information from various sources and draw conclusions based on the analysis of data and information, taking into account alternative points of view ([ACHGS068](#)).
- Present findings, arguments and explanations in a range of appropriate communication forms, selected for their effectiveness and to suit audience and purpose; using relevant geographical terminology, and digital technologies as appropriate ([ACHGS070](#)).
- Reflect on and evaluate findings of an inquiry to propose individual and collective action in response to a contemporary geographical challenge, taking account of environmental, economic, political and social considerations; and explain the predicted outcomes and consequences of their proposal ([ACHGS071](#)).