

Pre-lesson preparation, materials and equipment

The LEARN ABOUT WOOL online resource library, combined with the suggested resources listed below will give you ample background information to carry out this lesson and answer a range of questions posed by students. [The Woolmark Learning Centre Wool Appreciation Course Modules 1–3](#) is a valuable starting point to develop a comprehensive understanding of the inherent properties of wool which allow it to be used in a diverse range of applications and the many processes that make up the global supply chain from raw fleece to manufactured wool product.

The materials provided will also support your understanding of the topic and can be used to further spark students' interest and understanding of the topic.

Useful resources:

LEARN ABOUT WOOL primary factsheets

- [What is wool?](#)
- [Sheep — the wool producers](#)
- [How wool grows](#)
- [Wool — the natural fibre](#)
- [Different types of wool fabrics](#)

LEARN ABOUT WOOL posters

- [How wool grows](#)
- [Shearing](#)
- [Parts of the fleece](#)
- [Wool processing](#)
- [From farm to fashion](#)
- [Sam the lamb poster](#)

Useful book

The Story of Wool book (Kondinin Group)

Useful links

- [The Woolmark Learning Centre Wool Appreciation Course](#)
- [Enviro-Stories Our farmers, our future](#)

Videos

- [Wool production process](#)
- [Sam the lamb —what is wool?](#)

Materials and equipment

- LEARN ABOUT WOOL kit fabric and fibre samples
- Cardboard boxes to hold objects so students cannot see them while they feel them.
- A range of everyday items made from a variety of raw materials including cotton, synthetic fibres (e.g. rayon, nylon, polyester and polar fleece), hemp, linen and wool. Try to include a range of different types of woollen fabrics with different textures (e.g. fine knitted fabric, such as T-shirts or babies clothing, heavy knitted jumpers, woven blankets and fine tailored trousers or suiting fabric and felted items— see the [Different types of wool fabrics](#) factsheet for ideas). Felted items such as decorations, felted wool dryer balls, jewellery, craft felt and wool shoes are useful examples to show students (teacher to provide).
- Class science journal
- LEARN ABOUT WOOL factsheets
 - [What is wool?](#)
 - [Wool — the natural fibre](#)
 - [Sheep — the wool producers](#)
 - [How wool grows](#)
 - [Different types of wool fabrics](#)

Lesson objective

- To capture students' interest and introduce them to the language used to describe the properties of everyday materials.
- To explore what students know about the origins of everyday fabrics they are familiar with.
- To establish with students the source of wool (sheep) and for them to recognise that raw fibres must undergo changes during processing to produce a range of everyday products.
- To introduce students to the concepts of 'natural' and 'synthetic' fibres.

Students will have the opportunity to:

- explore and make observations about a range of raw materials and end products
- discuss the different uses for fabric/textiles (e.g. clothing, bedding and furnishings)
- identify the sources of the textiles they have explored (e.g. animals, plants and petrochemicals)
- explore the differences between natural and synthetic fibres.

Lesson focus

The focus of this lesson is to spark students' interest, stimulate their curiosity, raise questions for inquiry and gain an understanding of their existing beliefs about the textiles and fibres they come into contact with every day. These existing ideas can then be taken account of in future lessons.

Setting the context

Many students will have little knowledge about, or experience with, the origin of the fibres used in everyday items of clothing and furnishings. They may not understand the difference between natural and synthetic fibres or appreciate the different processes used to produce everyday textiles.

This lesson will allow students to explore a range of textiles and identify the source of their raw materials.

Introduction

Divide the everyday items into two groups, placing some in the cardboard 'touch and feel' boxes, with the others displayed for viewing and handling. Divide students into small groups and encourage them to explore the range of items on display. Ask students to share their observations as they explore the items. Encourage them to describe the way the different fabrics feel, look and smell. After exploring the items on display, ask them to investigate the 'touch and feel' cardboard boxes and discuss their ideas as to what types of fabric the items are made from. When each group has had the opportunity to explore the items, ask students to return to their seats and share their observations as a class. Ask students if they were able to guess what the items were made from and how they drew their conclusions. Record their observations and justifications in a class science journal or on the board.

Body of lesson

1. Explain to students that different textiles (fabrics) are made from different 'raw materials', which have been processed to produce yarn and then fabric. Ask students if they are familiar with words such as cotton, wool, polar fleece, polyester, nylon, hemp, linen etc. Explain to students that the raw materials used to produce our clothes and furnishings can be either natural (from plants and animals) or synthetic (man-made). To reinforce this concept, read to students the LEARN ABOUT WOOL factsheet [What is wool?](#) Ask students if they have any clothes made from wool.
2. Read to students the LEARN ABOUT WOOL factsheet [Wool — the natural fibre](#). Help students to read the labels on the items they have been exploring and sort them into groups: for example, natural fibres, synthetic fibres and possibly a blend of natural and synthetic. Taking the pile of natural fibres, work with students to sort this group of items into plant and animal fibres.
3. Explain to students that during this unit of work you are going to investigate the properties of one of Australia's most important natural fibres — wool. Reinforce that wool comes from sheep. You could read to students the information on the LEARN ABOUT WOOL factsheets

[Sheep — the wool producers](#), [How wool grows](#) and [Different types of wool fabrics](#). In particular, students may be interested in the *Did you know?* facts about wool on each factsheet. If you have time, students could watch the videos [Sam the lamb —what is wool?](#) and [Wool production process](#) to further enhance their understanding.

4. Identify the wool items in the collection of objects the students have been exploring and review the descriptions of these items from the class journal. Encourage the students to note differences in the feel of the objects, observing features such as yarn thickness and how the yarn is made into fabric. Ask the students, now they know the items are made from the same raw material, why do they all feel so different?
5. Return to the 'touch and feel' boxes and ask students if they can guess which items were made from wool. Identify the wool items in the collection of objects the students have been exploring and ask them how they know they are made from wool. Review their descriptions of these items, asking when they might wear or use these items and why.

Conclusion

- Reinforce that during this unit of work you are going to investigate how wool is transformed from the raw fleece on a sheep into a range of products used every day. Depending on the process used, the end woollen product can feel and perform very differently.
- Explain that during the next few lessons you will be investigating further how wool is harvested from sheep and made into a wide range of everyday products.

Extension activity

Students might like to explore the range of stories written by other school children on the [Enviro-Stories Our Farmers](#), our future website to find out how wool and cotton is being produced on farms across Australia. They may also choose to look through *The story of wool* (Kondinin Group) to further their understanding of the importance of wool.

Links to the Australian Curriculum:

- Science involves observing, asking questions about, and describing changes in, objects and events ([ACSH021](#))
- Pose and respond to questions, and make predictions about familiar objects and events ([ACSI024](#))
- Participate in guided investigations to explore and answer questions ([ACSI025](#))
- Compare observations with those of others ([ACSI213](#))