

## **Pre-lesson preparation, materials and equipment**

The LEARN ABOUT WOOL factsheet [Properties of wool](#), combined with the suggested teacher reference resources listed below will give you ample background information to carry out this lesson and answer a range of questions posed by students.

This activity will involve asking students to reflect on what they have learnt about the properties of wool during the past few lessons and encouraging them to think about how these properties influence the suitable end uses for wool.

### **Useful resources:**

LEARN ABOUT WOOL kit factsheets:

- [Properties of wool](#)
- [Different types of wool fabrics](#)

Sam the Lamb videos

- [Sam the Lamb — Properties of wool](#)

The Woolmark Company videos

- [The innovator](#)
- [Merino the baby wool](#)
- [Merino Activewear](#)
- [Merino wool in sports and activewear](#)

PIEFA video:

- [Exploring Australian approaches to producing cotton, timber and wool](#)

## **Materials and equipment**

- Video:
- [Sam the Lamb — Properties of wool](#)
- LEARN ABOUT WOOL kit factsheets:
  - [Properties of wool](#)
  - [Different types of wool fabrics](#)
- A range of wool clothing and furnishings from Lesson 1
- Backpacks and suitcases
- Class journal to record student reflections

## Lesson objective:

- To allow students to reflect on their observations regarding the properties of wool and draw conclusions about the suitability of wool for a range of everyday uses and activities.

## Students will have the opportunity to:

- consider the implications of wool's unique properties and draw conclusions about its suitability in a range of everyday uses.
- take part in informal and guided discussions relating to their observations
- use drawings to represent observations and ideas and discuss their representations with others
- communicate ideas through role play and drawing.

## Setting the context

Wool's range of unique properties make it an ideal fibre for many everyday applications. Wool is soft, comfortable, safe and environmentally sound.

During this lesson and possibly through their own experience, students will see wool used in a range of contexts.

## Lesson focus

The focus of this lesson is to encourage students to think about the link between the properties of a fibre and the implications for its end use.

## Introduction

Using the class journal, reflect with students what they now know about wool — where it comes from, how it feels, and some of its hidden properties (e.g. fire and stain resistance).

Explain to students that during this lesson they are going to think about some of the ways wool can be used in everyday items of clothing and furnishings, such as curtains and bedding.

## Body of lesson

1. Using the [Properties of wool](#) and [Different types of wool fabrics](#) factsheets as reference guides, review with students the different properties of wool they have investigated (e.g. softness, fire resistance) and some they may not yet be aware of (e.g. breathable, renewable, biodegradable etc).
2. Draw students' attention to the *Did you know?* and *Fun facts* on the factsheets, which expand upon how these properties are applied in end products (such as sportswear).
3. Show students the [Sam the Lamb — Properties of wool](#) video and discuss the concepts shown in the film with students. Ask questions such as:
  - "Why is wool clothing good for sportswear?"
  - "What makes wool safe to wear?"
  - "What makes wool comfortable to wear?"
4. Using the class science journal as a prompt, ask students what they have learnt about the properties of wool during the past few lessons. Encourage them to think about how wool feels, whether wool is a 'safe' fibre in the case of a fire and what happens when wool is exposed to water. Ask students if they have any wool clothing at home and when they might wear wool clothing.
5. Explain to students they are going to explore how wool might be used in a range of everyday situations through a role-play activity. Divide the class into small groups (3 – 4 students) and provide each group with one of the following scenarios — a trip to the snow | bushwalking or going to the park on a cold day | going to a bonfire night | playing football or riding a bike in summer | buying clothes or bedding for a newborn baby.
6. Ask students to sort through the range of items provided and pack a suitcase or bag with items that will be suitable for their given situation. Tell them they will need to explain to the rest of the class the situation they are in and why they have chosen those particular items. For example, the group going skiing might select layers of wool items such as t-shirts, long-sleeved pull-overs and a wool jacket and the group playing football or riding a bike in summer might choose a wool t-shirt to protect them from the sun and keep them cool while they are active. If you do not have access to a wide range of wool items students could draw items that would suit their scenario and label them.

7. When students are ready ask each group to present to the class. Encourage them to explain their situation, describe the items they have chosen and why they have chosen these items. Draw out from the students the particular properties of wool that have led them to make these choices during their presentation.

## Conclusion

Regroup in front of the class science journal or mind map. On the right-hand page write the heading, *Properties of wool*. Ask students to name one property of wool they have investigated during this unit.

Ask the students the following questions:

- “Where does wool come from?”
- “Is wool a natural or synthetic fibre?”
- “In what ways does wool protect sheep?”
- “What does wool feel like?”
- “Is wool flammable?”
- “Could you wear wool on a rainy day?”
- “Why is wool good to wear in summer and winter?”

## Extension activity

Ask students to draw a picture of themselves wearing or using their favourite wool item from the collection that has been on display during the unit of work on the properties of wool. Beside their drawing ask students to write a list of properties, from class science, that relate to why they like this particular item (e.g. soft, warm, safe etc). Students can share their drawings with the class and explain why they chose this item.

## Links to the Australian curriculum:

- Pose and respond to questions about familiar objects and events ([ACSYS014](#))
- Share observations and ideas ([ACSYS012](#))
- Engage in discussions about observations and represent ideas ([ACSYS233](#))