

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 Module 8 Manufacturing woven fabric](#) provides more detailed information on the weaving process.

It is not necessary to watch the entire *How to weave with wool* video with the class due to time constraints but viewing the video before delivering this lesson will identify key elements of instruction and student inspiration.

Useful resources:

LEARN ABOUT WOOL factsheet

- [Different types of wool fabrics](#)

Videos

- [AWI weaving tutorial— How to weave with wool \(Natalie Miller\)](#)
- [Weaving on a cardboard loom \(Part 1\)](#)
- [Primary weaving](#)

Useful books

- *Charlie needs a cloak*, written by Tomie DePaola
- *The weaver's surprise*, written by Tom Knisely, illustrated by Megan Lloyd

Materials and equipment

- LEARN ABOUT WOOL kit fibre, yarn and fabric samples
- Sufficient yarn samples for class (including student-made yarn from Lesson 3)
- Stiff cardboard (weaving loom)
- Scissors
- Masking tape
- Warp yarn for weaving loom
- Rulers
- Pencils

Lesson objective

To allow students to manipulate wool using the weaving process and to record the procedures followed to produce their woollen product.

Students will have the opportunity to:

- explore the process of weaving
- discuss their observations as a whole class to identify similarities and differences in their investigations
- share their work with others.

Lesson focus

The focus of this lesson is to allow students to explore the ways wool can be physically changed by weaving and the implications for its end use.

Setting the context

Weaving is the process of interlacing warp and weft yarns in a weaving machine, or loom. It is used extensively to manufacture fabrics used to create apparel and interior textiles. Weaving can use simple frames to hold the threads or complex weaving machines under computer control. Woven fabrics are constructed using a set of warp yarns, which run down the length of the fabric and weft yarns, which run along the width of the fabric. There are many different weave types, or weaving patterns, which can give woven wool fabrics different characteristics and features such as wear performance, cost, handle (feel) and aesthetics (look).

Woollen-spun woven fabrics are generally thick and heavy. They are ideal for warm winter jackets and coats. These fabrics are generally wind-proof and can repel light rain, so are good to wear when playing outside during winter. Worsted-spun woven fabrics are ideal to wear in warm weather or inside, where they keep you cool and comfortable.

For many years, yarn was processed domestically by hand and made into clothes through the process of weaving. Students will have the opportunity to make a simple weaving loom and weave a piece of fabric using a simple, easy-to-follow technique.

Introduction

In the previous lesson students explored how to change yarn into a knitted item. Introduce the lesson by explaining they will be looking at another process used to change wool yarn into wool fabric. This process is known as weaving. Revisit the LEARN ABOUT WOOL kit samples and highlight differences between the

woven fabrics. How are they similar/different to each other?

Ask students if they are wearing any woven garments. Encourage them to take a close look at the fabric of these garments. Can they describe what they look like and how they think they were made? How are they similar/different to the woven fabric samples from the kit?

Explain that in this lesson they are going to investigate weaving as a method of changing wool yarn into fabric. They will have the opportunity to create their own woven articles by making a simple loom for the purpose, using the instructional videos to guide them through the process.

Body of lesson

1. Show students the first three minutes of the instructional video [How to weave with wool \(Natalie Miller\)](#)
2. Distribute the stiff cardboard squares and show students the videos [Weaving on a cardboard loom](#) and [Primary weaving](#) Explain how to cut a series of evenly spaced notches along the top and bottom edges, using a ruler, pencil and scissors. Show them how to add the warp yarn top to bottom, using the video as a guide. Using alternate coloured yarns for the warp and numbering them, as shown in [Primary weaving](#) may assist some students with following instructions.
3. Show students various highlights of the *How to weave with wool* video, explaining some of the different types of weaving effects which can be applied. Students can then select yarn samples to begin weaving. Explain that these samples are called the weft yarns. Students may wish to include the yarn they produced in Lesson 3: Twisting, in the weft.
4. Allow students time to master the technique and produce a piece of weaving. Encourage students to assist one another with their work.
5. Regroup as a class and discuss the outcomes of this activity. How is this weaving result similar to woven fabrics in the LEARN ABOUT WOOL kit? How is it different? What are the similarities and differences between weaving commercially and weaving using their own weaving loom? Look at the *Different types of wool fabrics* factsheet. Can they identify what sort of fabrics are woven? Comments and observations can be recorded in the class science journal under the heading *Woven products*.
6. Display student's creations in the classroom, either as a framed piece still on the cardboard loom or cut off and attached to a hanger, as seen in [Primary weaving](#)

Conclusion

Encourage students to explain some of the properties and features of woven wool products (e.g. warm, bulky, soft, cosy, fuzzy, smooth) and how these properties influence the way we use wool in a range of everyday products. Discuss how can we change wool's shape and form when undergoing a variety of processes such as weaving. Allow students time to reflect on their learning and understanding of the properties of processed wool and how these can be incorporated into the clothes they wear.

Extension activity

A community member, skilled in woollen crafts such as weaving can be invited into the classroom to share their work. Students may also like to try circular weaving using the following instructional video [Circle weaving with children](#) using paper plates, scissors, a pencil and yarn.

Links to the Australian Curriculum:

- Everyday materials can be physically changed in a variety of ways ([ACSSU018](#))
- Science involves observing, asking questions about, and describing changes in, objects and events ([ACSHE021](#))
- Participate in guided investigations to explore and answer questions ([AC SIS025](#))
- Represent and communicate observations and ideas in a variety of ways ([AC SIS029](#))
- Use materials, components, tools, equipment and techniques to safely make designed solutions ([ACTDEP007](#))
- Explore the characteristics and properties of materials and components that are used to produce designed solutions ([ACTDEK004](#))
- Use and experiment with different materials, techniques, technologies and processes to make artworks ([ACAVAM107](#))