# Get Into Textiles – CAD/CAM In Textile Manufacturing

**ABC ME screening details: Monday** 18 May, 2020 at 1:50pm

This episode can also be viewed on [ABC iView](https://iview.abc.net.au/show/get-into-textiles)

**Key learning areas:** technology mandatory, textiles technology

**Level:** secondary

**About:** This resource looks at how CAD/CAM is transforming all sections of the textile industry, from digital printing and embroidery to knitting and laser cutting.

## Before the episode

1. Sketch your school logo. Identify where this logo is on part of your uniform. Is it stitched or printed onto the fabric?

## During the episode

1. Outline the difference between tradition screen/rotary printing and digital printing on fabrics. When will digital printing become more popular for commercial production?
2. When designing embroidery patterns, why is it important for designers to consider how many colours or stitches they use in each design?
3. The episode showed a computerised knitting machine producing jumpers. What are the benefits of knitting a garment in one piece?

## After the episode

1. Outline the benefits to individuals and society of CAD/CAM in textile manufacturing.
2. Outline the importance of communication during the CAD/CAM processes of textile manufacturing.
3. Explain the environmental benefits of using CAD/CAM processes over traditional processes when producing textile items.

**Follow-up activity:** Sketch a logo or design to go onto a backpack. Outline the CAD/CAM design and manufacturing processes that could be used to produce your design.

# NSW teacher notes

This is an optional standalone resource that can supplement student learning. The activities align with syllabus outcomes across stages and can be modified to meet the needs of your students. Students can complete the activities while learning at home or in the classroom. All activities can be completed without access to the internet or a device. Teachers can collect student work as evidence of learning and to provide feedback.

## Learning intentions

* To understand how CAD/CAM is changing the textile manufacturing process

## NSW Technology Mandatory 7-8 Syllabus outcomes

|  |  |
| --- | --- |
| Objectives | Stage 4 outcomes |
| how traditional, contemporary and advancing technologies are used when designing sustainable products and solutions | investigates how the characteristics and properties of tools, materials and processes affect their use in designed solutions (TE4-9MA) |
| the role of people and technologies in developing innovative solutions for preferred futures | explains how people in technology related professions contribute to society now and into the future (TE4-10TS) |

## NSW Textiles Technology 7-10 Syllabus outcomes

|  |  |  |
| --- | --- | --- |
| Objectives | Stage 4 outcomes | Stage 5 outcomes |
| knowledge and understanding of, and skills in design for a range of textile applications | describes the creative process of design used in the work of textile designers (TEX4-3) | explains the creative process of design used in the work of textile designers (TEX5-3) |
| knowledge and understanding of, and skills in design for a range of textile applications | uses methods of colouration and decoration of textile items (TEX4-5) | investigates and applies methods of colouration and decoration for a range of textile items (TEX5-5) |
| knowledge and understanding of the significant role of textiles for the individual consumer and for society | identifies factors affecting consumer demand, selection and use of textiles (TEX4-7) | evaluates the impact of textiles production and use on the individual consumer and society (TEX5-7) |

[Technology mandatory 7-8](https://educationstandards.nsw.edu.au/wps/portal/nesa/k-10/learning-areas/technologies/technology-mandatory-7-8-new-syllabus) Syllabus © 2017 and [Textiles technology 7-10](https://educationstandards.nsw.edu.au/wps/portal/nesa/k-10/learning-areas/technologies/textiles-technology-2019) Syllabus © 2019 NSW Education Standards Authority (NESA) for and on behalf of the Crown in right of the State of New South Wales. See the [NESA website](https://educationstandards.nsw.edu.au/wps/portal/nesa/mini-footer/copyright) for additional copyright information.