Video transcript

Understanding the Victorian Curriculum F–10 Version 2.0, Design and Technologies

Hello and welcome.

In an increasingly technological world, we need people with the knowledge and confidence to analyse, critique, and creatively respond to design problems. Our aim today is to familiarise you with the Victorian Curriculum F–10 Version 2.0 Design and Technologies, which intends to support students as they engage in design processes that develop innovative solutions to real-world challenges, including product development and entrepreneurship.

The revised curriculum actively engages students in appreciating design by developing their understanding of the processes of designing and creating products together with providing them with the resources to consider the impact of design decisions on individuals, communities, and the environment.

Let's turn our attention to the key revisions of the Design and Technologies curriculum. A greater emphasis has been placed on the Victorian examples in Version 2.0, such as elaborations that focus on Aboriginal and Torres Strait Islander histories, cultures, and perspectives within Victorian contexts.

The revisions enable greater flexibility for schools to tailor the delivery of the content, particularly when integrating technology contexts across teaching and learning programmes. The revisions also ensure content is tailored to gradually align with content in the senior secondary years and maintain consistency and language through the transition from Foundation to Level 10 into senior secondary.

Explicit reference to speculative thinking is introduced at Levels 5–6, with content descriptions providing opportunities for students to begin to hypothesise and propose and recommend ideas and suggestions for design solutions. There's also a greater emphasis on ethical considerations across the curriculum, including sustainability and worldviews.

The revised glossary provides guidance for teachers about the terms ethical considerations, sustainability, and worldviews.

Version 2.0 comprises the 3 related strands of Technology and Society, Technologies Contexts, and Creating Designed Solutions. The Technologies Contexts and Creating Designed Solutions strands are further organised into sub-strands.

The strands and sub-strands are intentionally specified as discreet and separate groups of content, which can be taught in an integrated manner. This gives teachers the flexibility to be creative in their planning to suit their own school context.

There are 4 sub-strands in the Technologies Contexts strand, engineering principles and systems, food and fibre production, food specialisations, and material and technology specialisations. Each sub-strand can be taught as a whole or in parts across the strands. For example, students could design and construct garden beds using materials, tools, and processes learned in the materials and technologies specialisation sub-strand, and then apply their knowledge and understanding from the food and fibre production sub-strand to grow plants within these beds.

The flexibility of these sub-strands ensures schools are not constrained if they choose to combine the technology contexts in the delivery of the curriculum. It’s possible to explicitly teach the 5 sub-strands through one Technologies Context, allowing students to then practise and further develop their knowledge and skills through other technology contexts.

Alternatively, it’s also possible to focus on explicitly teaching some of the sub-strands in the creating designed solutions strand through one Technologies Contexts and expose students to content from the remaining sub-strands to practice and develop their knowledge and skills. For example, first teaching content from 2 sub-strands, such as investigating and defining and generating and designing, and then providing students with opportunities to apply this information to produce a design solution, exposing students to content across the Creating Designed Solutions strand.

A key benefit of the curriculum is the authentic learning experiences that are presented to students. When planning and managing in the strand of Creating Designed Solutions, students develop the ability to negotiate roles and responsibilities and make compromises to work collaboratively as well as effectively in teams. Through a design process, students work individually and in teams to plan progressively from planning steps in a project through to more complex project management activities that require them to co-design and co-develop.

As I said a moment ago, the structure of the curriculum allows schools the flexibility to develop their teaching and learning programmes to suit their context. However, it’s important that schools plan effectively, particularly when there are multiple teachers responsible for the content from this curriculum area.

In the Design and Technologies curriculum, students progress along a learning continuum that provides the first achievement standard at Level 2, and then at Levels 4, 6, 8, and 10. The achievement standards describe what students are typically expected to be able to understand and do and are the basis for assessing student achievement. Content descriptions sequence and describe the knowledge, understanding, and skills that teachers need to teach and students are expected to learn.

When schools develop their teaching and learning programs for Design and Technologies, it is important to ensure that all students can identify and manage risks when using technologies. These risks relate to health and safety, injury prevention and ergonomics, and the use of potentially dangerous materials, including particular foods, tools, and substances.

The Design and Technologies curriculum equips students for a technological future by fostering problem solving skills, encouraging systems and design thinking, and promotes our students’ ability to work both independently and within teams. The curriculum affords students the opportunity to develop their problem-solving skills by encouraging them to think critically, creatively, and speculatively to solve problems in ethical ways.

Students develop their ability to identify issues, brainstorm solutions, and evaluate the effectiveness of their designs. These problem-solving skills are valuable not only in the field of design, but also in various aspects of life and work.

Through the curriculum, students engage in hands-on learning and are provided with opportunities to explore different materials, tools, and processes to understand how they work and how to use them effectively.

For more information, I encourage you to explore the Victorian Curriculum F–10 website. The website provides easy access to the curriculum and all its supporting resources.

Thank you for watching.