



INDUSTRIAL TECHNOLOGY SKILLS

Applied Senior Subject

Technologies are an integral part of society as humans seek to create solutions to improve their own and others' quality of life. Technologies affect people and societies by transforming, restoring and sustaining the world in which we live. In an increasingly technological and complex world, it is important to develop the knowledge, understanding and skills associated with traditional and contemporary tools and materials used by Australian manufacturing industries to produce products. The manufacturing industry transforms raw materials into products wanted by society. This adds value for both enterprises and consumers. Australia has strong manufacturing industries that continue to provide employment opportunities.

Industrial Technology Skills includes the study of industry practices and production processes through students' application in and through trade learning contexts in a range of industrial sector industries, including building and construction, engineering and furnishing. Industry practices are used by industrial sector enterprises to manage the manufacture of products from raw materials. Production processes combine the production skills and procedures required to produce products. Students engage in applied learning to demonstrate knowledge and skills of the core learning in units that meet local needs, available resources and teacher expertise. Through both individual and collaborative learning experiences, students learn to meet customer expectations of product quality at a specific price and time.

Applied learning supports students' development of transferable 21st century, literacy and numeracy skills relevant to a variety of industries. Students learn to interpret drawings and technical information, select and demonstrate safe practical production processes using hand/power tools, machinery and equipment, communicate using oral, written and graphical modes, organise, calculate, plan, evaluate and adapt production processes and the products they produce. The majority of learning is done through manufacturing tasks that relate to business and industry. Students work with each other to solve problems and complete practical work.

Pathways

A course of study in Industrial Technology Skills can establish a basis for further education and employment in manufacturing industries. Employment opportunities may be found in the industry areas of aeroskills, automotive, building and construction, engineering, furnishing, industrial graphics and plastics.

Objectives

By the conclusion of the course of study, students should:

- demonstrate practices, skills and procedures
- interpret drawings and technical information
- select practices, skills and procedures
- sequence processes
- evaluate skills, procedures and products
- adapt plans, skills and procedures.

Structure

Industrial Technology Skills is a four-unit course of study. This syllabus contains the four industrial sector syllabuses with QCAA-developed units as options for schools to select from to develop their course of study.

When selecting units to design a course of study in Industrial Technology Skills, the units must:

- be drawn from at least two industrial sector syllabuses and include no more than two units from each
- not be offered at the school in any other Applied industrial sector syllabus.

Assessment

Students complete two assessment tasks for each unit. The assessment techniques used in Industrial Technology Skills are:

Technique	Description	Response requirements
Practical demonstration	Students perform a practical demonstration when manufacturing a unit context artefact and reflect on industry practices, and production skills and procedures.	Practical demonstration Practical demonstration: the skills and procedures used in 3–5 production processes Documentation Multimodal (at least two modes delivered at the same time): up to 3 minutes, 6 A4 pages, or equivalent digital media
Project	Students manufacture a unit context product that consists of multiple interconnected components and document the manufacturing process.	Product Product: 1 unit-specific product manufactured using the skills and procedures in 5–7 production processes Manufacturing process Multimodal (at least two modes delivered at the same time): up to 5 minutes, 8 A4 pages, or equivalent digital media