

# INDUSTRIAL TECHNOLOGY SKILLS

## HOW WILL I BENEFIT FROM STUDYING INDUSTRIAL TECHNOLOGY SKILLS?

Industrial Technology Skills is a course in which you investigate the nature and functions of available materials and resources through the application of inquiry, research, and problemsolving methodologies. You are encouraged to apply your learned knowledge and skills towards the creation of products in a variety of contexts.

The course provides a unique opportunity for you to experience the challenge and personal satisfaction of undertaking practical work in a new and exciting environment. You will hopefully be able to confidently transfer your skills and problem-solving abilities to future life situations. Industrial Technology Skills also aims to assist in the development of fine motor coordination, confidence, and self-esteem through achievement-oriented tasks.

## THE MAIN AREAS OF FOCUS THROUGH THE COURSE OF STUDY ARE:

- Project research, interpretation of technical specs, production planning, and development
- Tools, materials, surface finishing, and sustainability
- Fabrication and resource management of traditional and contemporary technologies
- Construction techniques and planning
- Industrial and personal safety awareness and practices

### WHAT ARE THE TOPICS IN YEAR 9?

- Timber jointing, shaping and finishing are investigated through various contexts.
- Sheet and solid metals fabrication, oxy-acetylene welding and metal forming.
- Typical projects include sheet metal toolboxes, CO2 dragsters, trinket boxes, picture boxes, bolt figurines, and self-designed toys for young children.
- Students are required to identify and understand a problem or need, select appropriate strategies and resources that may solve the problem, implement a plan and then evaluate the practical outcome.
- Through the two-year course, students are exposed to a range of intellectual processes while developing practical skills associated with tools, equipment and safety.



#### WHAT ARE THE TOPICS IN YEAR 10?

- Year 10 expands upon the learning experiences from Year 9, with student responsibility and choice taking an increasingly greater role in the course. The students' knowledge of industrial machinery and associated technologies and awareness of the role of safety is also developed in preparation for senior studies and personal life skills.
- Typical projects include coffee tables/bedside tables, wrought iron candelabras and push kart design and fabrication.

### TECHNOLOGIES

We are developing Year 9 and 10 student skills using a range of technologies including 3D printers, CNC Routers and Laser Cutters.

#### WHAT IS THE ASSESSMENT?

- The assessment in Years 9 and 10 involves varied types of practical project work supported by appropriate theoretical components.
- The two key assessable dimensions are Knowledge & Understanding and Processes & Production Skills.