

# TECHNOLOGIES: METALWORK

## ELECTIVE SUBJECT: Across four semesters

### WHY STUDY DESIGN?

Technologies enrich and impact on the lives of people and societies globally. Technologies, in their development and use, are influenced by – and can play an important role in transforming, restoring and sustaining – our societies and our natural, managed, constructed and digital environments. The Technologies learning area draws together the distinct but related subjects of Design and Technologies and Digital Technologies. The Australian Curriculum: Technologies will ensure that all students benefit from learning about and working with traditional, contemporary and emerging technologies that shape the world in which we live.



### COURSE AIMS:

Technologies aims to develop the knowledge, understanding and skills to ensure that, individual and collaboratively, students:

- are creative, innovative and enterprising when using traditional, contemporary and emerging technologies, and understand how technologies have developed over time
- effectively and responsibly select and manipulate appropriate technologies, resources, materials, data, systems, tools, and equipment when designing and creating products, services, environments and digital solutions
- critique and evaluate technologies processes to identify and create solutions to a range of problems or opportunities
- investigate, design, plan, manage, create, produce and evaluate technologies solutions
- engage confidently with technologies and make informed, ethical and sustainable decisions about technologies for preferred futures including personal health and wellbeing, recreation, everyday life, the world of work and enterprise, and the environment.



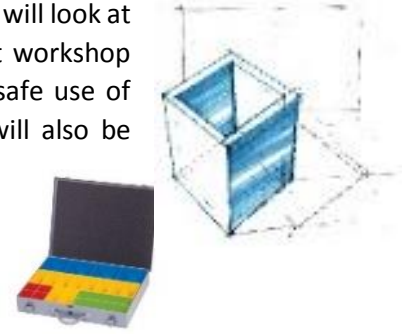
### COURSE ORGANIZATION:

The study of Technologies in Metal can be studied across 4 semesters with the level of design and project detail increasing each semester. Students can take their first unit at any time over the 4 semesters and this could mean that a student in Year 10 may be doing the unit for the first time. Because of this, the first unit that is undertaken will focus on basic concepts of design and hand skills. Students will be expected to work at a higher level with design and skills in the second unit.

## Semester 1 TM581 - Foundation



Through the use of books, videos and the web the students will look at the different stages of design. They will be taught about workshop graphics and how to sketch to proportion. Correct and safe use of tools, woodworking terms and safety in the workshop will also be taught. Students will construct one major project over the semester.



## Assessment

There will be a theory test on tool names, uses and metalworking terms. A practical test at the end of the semester will be used to assess skills as well as the finished project.

## Semester 1 TM681



There will be one major project constructed over the semester. The project will be a set project with students being allowed to modify the design with teacher approval. Students will be expected to use the knowledge gain from the previous unit to complete a detailed design folio of the project showing their design changes. Machines can be used in the construction of the project at this level.

## Assessment

The completed design folio will be assessed as well as a theory test based on parts of a design folio. The completed project will be assessed. **Both the project and the design folio must be fully completed to a sound standard before moving onto the next unit.**

## Semester 2 TM682



There will be one major project constructed over the semester. The project will be a set project with students being allowed to modify the design with teacher approval. Students will be expected to use the knowledge gain from the previous unit to complete a detailed design folio of the project showing their design changes. Machines can be used in the construction of the project at this level.



## Assessment

The completed design folio will be assessed as well as a theory test based on parts of a design folio. The completed project will be assessed. **Both the project and the design folio must be fully completed to a sound standard before moving onto the next unit.**

## Semester 2 TM782



Students in this unit will design a project of their own choice within guidelines of size and cost. This could be one project over a semester or two smaller projects over the semester. There will be more focus on design in this unit and students will be expected to work independently to research and plan their design. They will need to justify their choice of design and construction methods.



## Assessment

The completed design folio will be assessed as well as the completed project. Students will work in groups of two to make a video of some aspect of construction methods or machine use.