

# Design Technologies

**DESIGN TECHNOLOGIES** - Subject Type: Split; 1 Semester or Full Year

This subject encompasses both streams of the Technologies curriculum as outlined in the Australian Curriculum. Students will complete 2 semesters of Technologies, incorporating one unit of Digital Technology.

Students work towards developing Design and Technologies knowledge and understanding through the use, development and impact of technologies in people's lives design and through concepts across a range of technologies contexts.

Students develop Design and Technologies processes and production skills through critiquing, exploring and investigating needs or opportunities, generating, developing and evaluating design ideas for designed solutions, and planning, producing (making) and evaluating designed solutions.

**DESIGN TECHNOLOGIES: INDUSTRY PATHWAYS PROGRAM** - Subject Type: Split; Full Year

Industry Pathways Program (IPP) at PASS has been running for the past 8 years. Students are selected for the program via a literacy and numeracy test along with an interview process involving the applicant and Parent/Caregiver/s. All student data related to subject reports, attendance and behaviour records play a major factor in the selection process.

Students may enter the program at Year 9 and exit the program at a number of points; however it is aimed for the best student outcomes for students to remain in the IPP until a suitable exit plan to employment, apprenticeship or tertiary training is established.

In Year 9 students will attend a set group of subjects with the same group of students until moving onto post school pathways. Students will take part in English, Humanities, Science, Metal Technology and Mathematics. Students in the program will take part in ten (10) Mathematics lessons a week instead of the traditional five (5). The reasoning for this is that from working closely with industry over the years, mathematics plays a vital role in the success of young people in many trade-based careers.

For further information, please contact the Industry Pathways Program Senior Leader on 8647 3300

**Pathway** - Year 10 Industry Pathways Program

**DESIGN TECHNOLOGIES: ELECTRO TECHNOLOGY** - Subject Type: Split; 1 Semester or Full Year

Electro Technology is an introduction to the principles of electricity. Students develop a range of basic electronics skills that will be built upon with theoretical and practical skills enhanced and assessed in the following areas:

- Workshop Safe Operating Procedures
- Principles of electricity
- Basic electrical safety

- Basic principles of circuits
- Series vs. parallel circuits
- Basic soldering
- Use of Snap Circuit kits

**Pathways** - Year 10 STEM; Year 10 Computing; Year 10 Electronics

**DESIGN TECHNOLOGIES: DIGITAL TECHNOLOGIES** - Subject Type: Split; 1 Semester or Full Year

Digital Technologies focuses on developing students' understanding and skills in computational thinking and engaging students with information. Students will undertake both individual and group projects developed around a Problem Based Learning (PBL) approach. They will be investigating problems and solutions based on scenarios relevant to the local context. They will plan and then develop solutions to problems using a variety of tools and technologies.

The theory components of the course will help students to develop a greater understanding of the technologies that provides the foundation for the world as they know it, with a focus on computational thinking, communication, networks and information transmission.

The practical components of the course will involve applying the System Development Life Cycle to solving problems, researching potential solutions and presenting findings, as well as the development of solutions in the form of digital systems such as interactive programs and games.

**Pathways** - Year 10 STEM; Year 10 Computing; Year 10 Electronics