**PRODUCT DESIGN AND TECHNOLOGY**

Students assume the role of a designer-maker. In adopting this role, they acquire and apply knowledge of factors that influence design, address design factors relevant to their own design situation and develop knowledge and the use of resources. These resources include a range of materials, tools, equipment and machines needed to transform these materials in a safe manner into useful three-dimensional functional product, or products, where sustainability is a key component. Central to VCE Product Design and Technology is the Product Design Process which involves the identification of a real need and the development of a Design Folio which includes a design brief, idea generation, research, design option drawings, testing processes and materials, planning and evaluation. Students may complete Units 3&4 without having completed Units 1&2. Students interested in pursuing careers in the building design/ construction industries may enjoy this subject.

**Unit 1:** This unit focuses on the analysis, modification and improvement of a product design. It provides a structured approach towards the design process, and looks at examples of design practice used by a designer, and analysis and evaluation of a design.

**Unit 2:** In this unit each student works as a member of a team to design and develop a product range or contribute to the design and production of a group product.

**Learning Activities:** Design, sketch, investigate materials, complete a production book and construct one product per semester.

**Key skills required**: Research, materials investigation, sketching, drawing, ability to use a range of tools safely, skills in evaluating products.

**Assessed tasks**: Materials testing, design folio, multimedia presentation, completed quality product and an end of semester examination.

**Unit 3 and 4**

In these units, students investigate a client or end-user’s needs, prepare a design brief, devise evaluation criteria, carry out research and propose a series of design options. They justify the choice of a preferred design option and develop a work plan, and commence production of the product, which will be completed and evaluated in Unit 4.

**Learning Activities:** Development of a Design Folio, research, investigating products made in an industrial setting, comparing products, making a quality product and investigation of the consumer market.

**Key Skills required:** Research skills, ability to use tools and equipment safely, skills in sketching, drawing, exploring ideas.

**VCAA Assessment**: Product Design and Technology the student’s level of achievement will be determined by school-assessed coursework, a school assessed task and an end-of-year examination. Percentage contributions to the study score in Product Design and Technology are as follows:

• **Unit 3 school-assessed coursework: 12 per cent**

**• Unit 4 school-assessed coursework: 8 per cent.**

**\* School-assessed task: 50 per cent**

**• End-of-year examination: 30 per cent**