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# VCE UNITS INFORMATION

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## VCE Product Design and Technology Units 3 and 4

### CONTENT

#### Unit 3

In this unit, students are engaged in the design and development of a product that meets the needs and expectations of potential end-users, developed through a design process and influenced by a range of complex factors.

Design and product development and manufacture occur in a range of settings. An industrial setting provides a marked contrast to that of a 'one-off situation' in a small 'cottage' industry or a school setting. Although a product design process may differ in complexity or order, it is central to all of these situations regardless of the scale or context. This unit examines different settings and takes students through the product design process as they design for others. In the initial stage of the product design process, a design brief is prepared. It outlines the context or situation around the design problem and describes the needs and requirements in the form of constraints or considerations.

#### Unit 4

In this unit, students will learn that evaluations are made at various points of product design, development and production. In the role of designer, students judge the suitability and viability of design ideas and options by referring to the design brief and evaluation criteria in collaboration with a client and/or an end-user. Comparisons between similar products help to judge the success of a product in relation to a range of product design factors. The environmental, economic and social impact of products throughout their life cycle can be analysed and evaluated with reference to the product design factors.

### OUTCOMES

#### Unit 3

In Area of Study 1, students should be able to examine how a design brief addresses particular product design factors and how evaluation criteria are developed from the constraints and considerations in the brief. They should be able to develop an understanding of techniques in using the design brief as a springboard to direct research and design activities.

In Area of Study 2, students should be able to examine how a range of factors, including new and emerging digital technologies, influence the design and development of products within industrial manufacturing settings. They should be able to consider issues associated with obsolescence and sustainability models.

In Area of Study 3, students should be able to commence the application of the product design process for a product design for an end-user, including writing their own design brief which will be completed and evaluated in Unit 4.