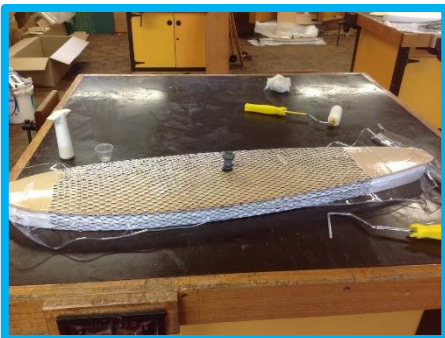




Industrial Technology

Stage 5 - Year 9

Skateboard



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1. Rationale

The purpose of this project is to design, develop and construct a project from a set of specifications. Students are to complete design and research. This will hopefully allow greater understanding of the purpose of the project as well as the design, construction and finishing methods selected.

Design development resulting in individualisation of project is encouraged in this project. An accompanying Portfolio will document all processes of this project.

2. Description of project

The Skateboard is an item specifically designed to fit within a sequence of stage 5 Industrial Technology projects. The requirements of the Timber Technologies elective course are considerably greater than experienced in the Stage 4 Technology Mandatory course. You will be expected to develop skills to produce high quality laminate joinery including assembly, hardware components, and finishing. You are also expected to understand why such techniques are used; an assessable portfolio will address this requirement further.

The Skateboard and parquetry design are complex in construction but employs many of the techniques used in larger projects. The school uses Australianskateboardkits.com to purchase all materials for the manufacture of the project. If student desire they need to purchase skateboard trucks, grip tape and wheels to fully complete the project. This is helpful for those students looking at completing Industrial Technology or Design and Technology in Stage 6.

3. Materials

Laminate Ply (Canadian Maple)

American hard maple is a cold weather tree that grows across the north-east States of the US and in Canada. It produces an attractive timber with creamy-white sapwood, sometimes with a pink tinge, and light to reddish brown heartwood. Higher grades of the timber are selected for the white colour of the sapwood, and this can limit their availability. While generally straight-grained, American hard maple can have a distinctive curly, fiddleback or birdseye figure. Figured maple is generally only commercially available as veneer.

American hard maple, as the name suggests, is a hard, heavy wood with a fine texture that is high in all strength properties except for stiffness, which is medium. It is a hardwearing timber, making it ideal for flooring applications where there is a high volume of foot traffic, such as gymnasiums or concert halls. It also has a very good steam bending classification.

American hard maple is considered to be quite difficult to work with due to its blunting effect. Pre-boring is recommended when nailing or screwing. The timber does not take glue well. When care is taken, the timber machines and turns well, and it can be stained and polished to achieve an extremely attractive finish.

Readily available in Australia as both sawn timber and veneer, American hard maple is used in a variety of interior applications, such as furniture, panelling, cabinet making and interior joinery. It is also used in stairs, handrails, mouldings and doors. As mentioned above, the hardwearing properties of American hard maple means that it is an excellent timber for flooring applications in gymnasiums, theatres, concert halls and basketball courts. In its veneer form, American hard maple is also used in the construction of skateboards.



Figure 3: American hard maple is a creamy-white timber with a pinkish tinge that is used in flooring, furniture, cabinet making and interior joinery.



Figure 2: The use of American Hard Maple in the Bundestag in Berlin is an indication of the timber's popularity on an international scale.



Figure 1: The striking creamy tones of American Hard Maple are featured throughout the interior of the Banque Postale, Paris.

Parquetry Design

Parquet is a geometric mosaic of wood pieces used for decorative effect.

The two main uses of parquetry are as wood veneer patterns on furniture and block patterns for flooring. Parquet patterns are entirely geometrical and angular—squares, triangles, lozenges. The most popular parquet flooring pattern is herringbone. (The use of curved and natural shapes constitutes marquetry rather than parquetry.)

www.woodsolutions.com.au

Titebond III

Titebond III is the most advanced wood glue available today. While all Titebond products provide superior performance, Titebond III is especially useful for outdoor applications in cooler temperatures or when concern for substantial moisture calls for the use of a Type I glue (USA boil test). For interior applications, the longer working time of Titebond III provides woodworkers the necessary latitude to ensure that substrates are precisely aligned before being bonded. Overall, Titebond III combines superior strength, sand ability with water clean-up the ease of use of aliphatic resins with the, durability and water resistance of polyurethanes into one easy-to-use formulation.

Titebond III is also the domestic version of Multibond SK-8 which is used to Glue together Skateboards due to its flexibility and Strength.

www.titebond.com.au

Australian Skateboard Kits

Together with Roarokit in Toronto, Australian Skateboard Kits are introducing skateboarders to woodwork and woodworkers to skateboarding. Ted Hunter's patented Thin Air Press (TAP) System is now available to you here in Australia.

This proven system has shown people just how fun and easy it is to build your own custom deck. Using the best wood in the world for skateboards (Canadian Maple), you'll learn how to laminate a 3 dimensional deck in the Thin Air Press, finish it, design and apply your own graphics. Using Roarockits patented method, your quality deck will be entirely hand-made, using the power of vacuum. With Australian Skateboard Kits there is no need for power tools or dangerous adhesives, making it ideal to use in any home or classroom.

www.australianskateboardkits.c

4. Cutting list and Costing (Class Task)

Item	Product	Unit Cost	Quantity	Total Cost

This section will be used as a guide to writing your finance plan for your skateboard.

5. Construction Process

Fill this section with each construction stage

1.

2.

3.

4.

5.

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