

INDUSTRIAL TECHNOLOGY

COFFEE TABLE



2001.

Design

Statement of intent:

The proposed major project is to design, construct a coffee table.

Motivation:

The project is being developed to be used in the lounge-room. Motivation behind this project is that project is simple, not too big, not very expensive and also very good and useful. Also the need of these things in the home motivated me to do this project.

Purpose:

The purpose of this coffee table is to be useful in lounge-room like to hold the cups and saucers, storage of magazines in drawers.

Parameters of the design:

The design should allow the coffee table to:

- ◆ Be able to have light weight
- ◆ Be able to fit in the small space as measured

What are the possibilities?

Materials:

The possibility is that my project could have made out of anything like radiata pine, pine, red cedar, oak etc. But I used hard wood like cedar, maple and Tasmanian oak because it is the best wood for the purpose I am using for. It's also long lasting, strong and hasn't got any bad effect (harmful) on the body.

Could I possibly market this project?

The project I made is not really a unique design that someone hasn't done.

Development of concept & ideas.

Several rudimentary sketches with some annotations, were included in the folio. Sketches were unable to be reproduced

Selection & justification of materials, components, processes & other resources

Materials

Options:	Choice	Justification of choice
<u>Frame:</u> Wood Plastic Metal Hardwood (maple, Tasmanian oak, cedar) Softwood (Pine, red cedar etc)	Wood Hardwood	Suitable, strong, easy to make Strong, durable, good for project like this

Components

Options:	Choice	Justification of choice
<u>To glue the sheets of wood</u> PVA glue Animal glue Screws Nails	PVA glue	Best glue currently being used in wood industry, strong, colourless, no preparation time

Processes & other resources

Options	Choice	Justification of choice
Turning legs on lathe Carving	Turning on lathe	Easy, fast, good shape.

Management :

Finance plan

Item	Expected cost	Actual cost	Date purchased
Maple	\$90	\$73.26	19-03-01
Vegetable oil	\$2	\$1.49	07-07-01

Use of appropriate industrial processes & equipment

- ◆ The lathe machine was used for turning the legs, then I decided it was too hard to join the legs to the rails, so I didn't use it.
- ◆ The saw was used to cut the woods for rails and legs. The router was used for/to make recesses for the glass in the wood.
- ◆ For the portfolio computer (Microsoft word) was being used to make nice, clear and good finish.

OH & S Regulations

- ◆ The OH & S which were appropriate throughout the production of the project included goggles, safety boots, protective shield while working on lathe), apron etc.
- ◆ While working on lathe machine its important that you have worn the protective shield or at least goggles, safety boots, apron etc. because any time any piece from the lathe can fly and can cause serious injury. Even while working on lathe you shouldn't wear loose clothes because it can get caught in the lathe and can cause serious injury or sometimes-even death.
- ◆ Workshop boots, goggles, apron should be worn at all the time while working in the workshop. All of these things are necessary and very important in workshop.

Workshop drawings

Basic workshop drawings were included in the folio. These were unable to be reproduced

Sketches (rough sketches)

Rough sketches with little, if any, annotations, were included in the folio. Sketches were unable to be reproduced

Project evaluation:

Evidence of ongoing evaluation

- ◆ It was found that the maple and Tasmanian oak were the best materials used for tables. Maple was simply better than Tasmanian Oak because it is cheaper and more readily available at hardware stores.

Date of evaluation 15-03-01

- ◆ For joining the timber for the table PVA glue was one of the best. This is because the glue was colourless; the strength of the glue (very strong), no preparation time is needed and also used widely in wooden based industries.

Date of evaluation 05-04-01

- ◆ Turning on the lathe was found out to be one of the best methods for making the legs, but it was too hard to get the legs accurate and join rails to them. It was decided to leave the legs square.

Date of evaluation 15-04-01

Appropriateness of design and/or design modification

- ◆ The final design for the table was appropriate because:
 - The design was simple and easy to make
 - It was neither too heavy nor too light
 - The size wasn't too small. It was just perfect
 - It was the way I wanted to do

Production:

Quality of product

- ◆ The quality of the finish product is indicated by the following:
 - The high vegetable finish

Evidence of a range of skills

- ◆ The range of skills used during design & production include:
 - Cutting and measuring timber.
 - Cutting joints.
 - Sanding and finishing.
 - Designing and drawing of the phototype

Degree of difficulty

- ◆ The degree of difficulty is demonstrated by:
 - The use of router for recesses for glass top
 - The use of chisels and mallet to cut joints.

Links between planning & production

- ◆ The link between planning and production is demonstrated by:
 - The use of information from research and testing to produce the final product
 - The use of all concept sketches and working drawings to produce the phototype
 - The adherence to the planned timeline and finance plan in the production of the prototype

Evidence of industrial processes

- ◆ Industrial processes used were:
 - Observing all OH & S regulations during construction

Use of appropriate materials

- ◆ The material selected and used were appropriate because:
 - The finished used was food safe.
 - Selection of appropriate wood for table.

Use of industrial technologies

- ◆ Industrial technology used ware:
 - Router for cutting recesses.
 - Use of band saw and drop saw for sizing timber.