

Passions & Pathways 2018

***Design & Construction  
From plan to model***

Student Book : Group 3



Hosted by  
**Penno Drafting & Design**  
33 Breen Street, Bendigo  
&  
**Bendigo TAFE**  
Charleston Road, Bendigo



**Design & Construction**  
**From plan to model**  
**GROUP 3**

This Project consists of three sessions

- The 1<sup>st</sup> session: Thursday, August 16<sup>th</sup> from 10.00-11.30  
@ Penno Drafting
- The 2<sup>nd</sup> session: Thursday, August 23<sup>rd</sup> from 10.00 -11.30  
@ Bendigo TAFE, Charleston Rd
- The 3<sup>rd</sup> session: Thursday August 30<sup>th</sup> from 10.00-11.30  
@ Bendigo TAFE, Charleston Rd

**Important things to remember for each session**

**You will need to:**

- Wear your uniform with full covered in shoes (no toes or top of foot to be exposed)
- Tie back long hair back
- Bring and wear a name tag – your first name only
- Bring a pencil, pen and your Project Book; **calculator for session one**
- **Bring your designs/templates for the back panel and front name panel of your IT device holder and your safety glasses for sessions two & three**
- Listen to all instructions and follow the directions given
- Bring a small snack to eat, at the end of each session

**Session 1** you will be working with:

- Grant Penno & staff  
From Penno Drafting & Design
- **Teacher : .....**

**Session 2 & 3** you will be working with:

- Session 2: Leigh Hauke
  - Session 3: Leigh Hauke
- From Bendigo TAFE Building & Construction department
- **Teacher : .....** Eaglehawk Primary School

## Session 1: Thursday, August 16<sup>th</sup> from 10.00-11.30

Welcome by host Grant Penno

There will be a brief introduction including the types of careers available at Penno's and the education required

Then: the **focus of the activity** is to **design a house** within a range of parameters such as:

- Property size and shape
- Property access
- Property location
- Building codes and other regulatory requirements
- Budget

An undeveloped site plan (included with pink boundary in Epsom near the oval) and a budget of \$250,000 has been determined for the construction of a house.

**As a group**, you will **plan** what types of rooms and facilities you would like in the combined house plan, completing rough plans of the proposed house, type of façade, pitch of the roof, etc. This will involve using rulers, calculators and applying a scale to the drawing.

You will then **observe** your house plan being converted, using CAD (Computer Assisted Design) from a **one dimensional plan** to a **two dimensional plan**

You will have a CAD print-out of the house plan to take with you

Time for a hot chocolate and a small snack (from home)

Would you like to work in this type of Industry?

**What are at least three things I have learnt today?**

1)

2)

3)

4)

**Thank your host**

**Remember to bring your templates to next week's session**

**Session 2: Tuesday, Thursday, August 23<sup>rd</sup> from 10.00-11.30**

**@ Bendigo TAFE**

## **Design and Construction of an I.T. Device Holder**

**Project Time: 2 x 1.5hr hour Sessions (Sessions 2-3)**

**Location:** Carpentry workshop SL1:01 (VETis Workshop), Building L, Charleston Road campus

### **Welcome and orientation to the workshop including OH&S requirements:**

Kevin Harrison carpentry Teacher Building & Construction

**Introduction to session 2:** Leigh Hauke, Carpentry Teacher Building & Construction

### **Safety on the Job**

- The workshop area contains work-benches, tool racks and work under construction by apprentices.
- The area where apprentices store their work is 'out of bounds' to us during our time in the workshop.
- This workshop area contains sharp tools and light saw dust may be slippery on the floor area.
- Following instructions and moving carefully and safely is paramount at all times whilst working in this area.

### **The TAFE Carpentry Workshop**



**Tool Board**



**Workshop**



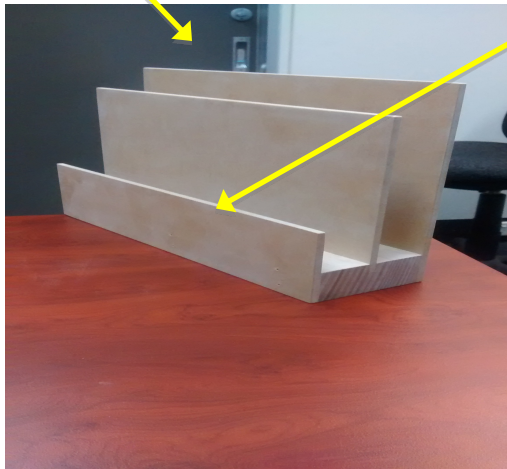
**Protective aprons**

Tour of the TAFE complex visiting each area with information given to each area

**You have brought your** \_design to transfer/trace on to your IT device holder for the

Rear panel to attached to the back of the base

Name panel to attach to the front of the base



**Discussion:** Leigh Hauke

What challenges did you face designing and making the templates?

**Introduction to the tools and materials:** Leigh Hauke

**A sample of the tools we will use to construct the IT Device Holder**

Coping Saw



Brads



Clamp



Glue



Hammer



Tape Measure



Screws

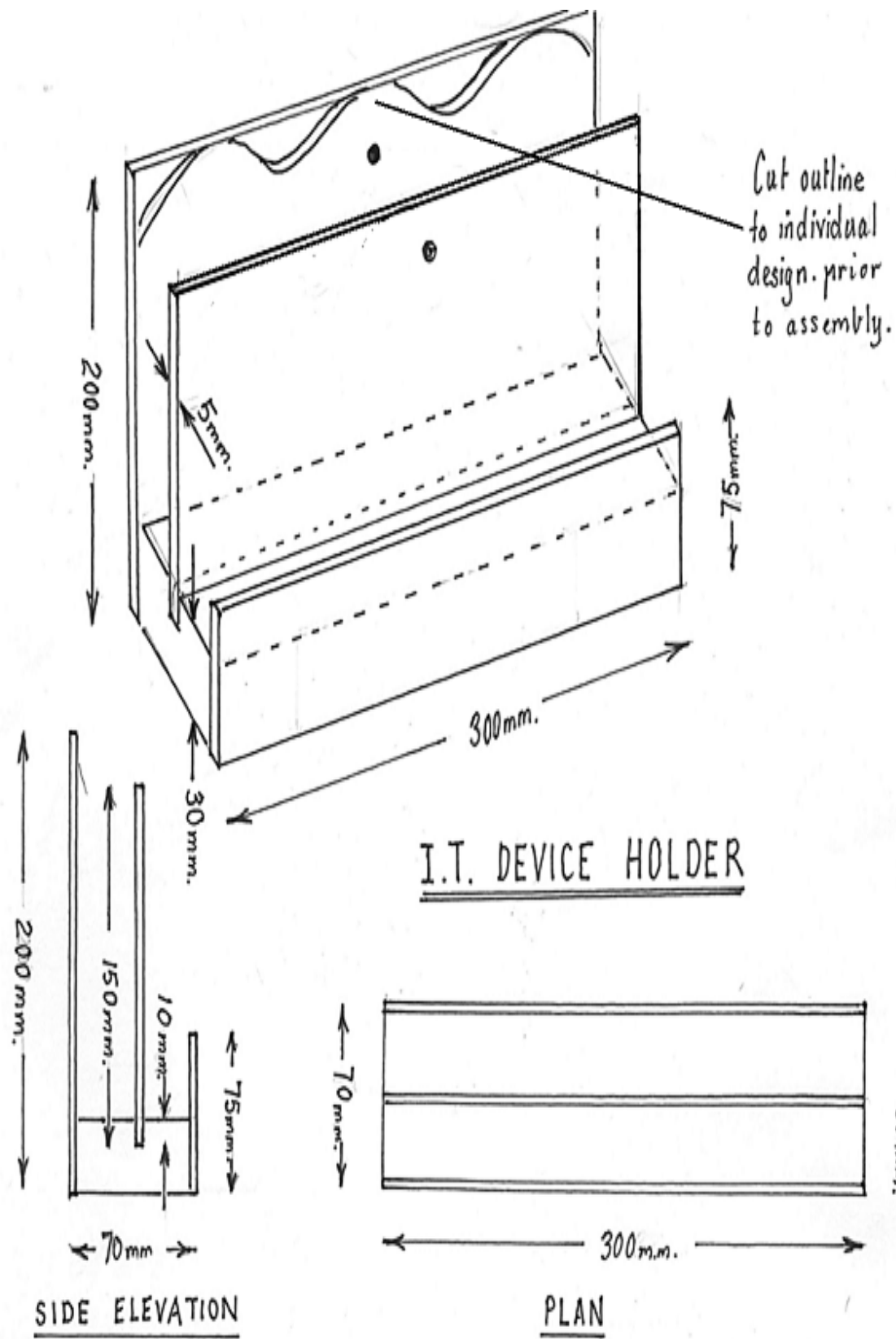
**A demonstration of how to safely use a coping saw:** Leigh Hauke



Watch carefully

You will practice using the coping saw with a scrap of MDF

# The Model



# Building the Model

You will be supplied with your materials to make your IT device holder

### **Step one**

- Name each piece of timber; you will have four pieces – the MDF back panel, the MDF middle panel, the MDF front name panel and the hardwood base.

### **Step two**

- Transfer/trace with a pencil your designs for the MDF front name panel.

### **Step three**

- Cut along the lines of your name design for the MDF front name panel using and the coping saw.

### **Step four**

- Sand the cut edges of the MDF to make smooth, with sand paper.

### **Step five**

- Glue the middle piece of timber into the slot of the base of the IT device holder, and glue your name design to the face of the front panel.

**The glue will set in between sessions and will be ready when we return for the next session on Tuesday, June 19**

**If you finish early**

### **Step six**

- Complete drawing design on the rear panel of your IT device holder

**Your model and templates will be safely stored in a small container**

Time for a hot chocolate and a small snack (from home) in the student cafeteria

**What are at least three things I have learnt today?**

1)

2)

3)

4)

**Thank your hosts**

## **Session 3: Tuesday, Thursday, August 30<sup>th</sup> from 10.00-11.30**

**@ Bendigo TAFE**

**Welcome & Review of session two:**

**Re visit Occupational Health & Safety requirements: Kieran Moroni**

**Then we will distribute your materials**

### **Outline for the session 3**

#### **Step six**

- Cut out the back panel design

#### **Step seven**

- Sand the cut edges

#### **Step eight**

- Attach back to base block with glue and nails

#### **Step nine**

- Attach completed front name panel to base block with glue and nails

Time for a celebration, a hot chocolate and a small snack (from home) in the student cafeteria

**What are at least three things I have learnt today?**

**1)**

**2)**

**3)**

**4)**

**Thank your hosts**