

Lamp Knowledge Organiser

Knowledge

Know how to Analyse and develop ideas from existing designs

Know how to write a specification

Know how to evaluate the work

Skills

Be able to select the correct tools and equipment

Be safe and accurate in the use of tools, machinery and equipment

Be able to spot hazards

Have an awareness of safety procedures

Be able to use accurate measuring and marking skills

Evaluate and annotate their work

Develop and improve their work

Work effectively as an individual

Tier Three

Vocabulary

Comb or finger joint,

Laser ply,

Acrylic,

Laser cutter,

sander,

evaluate,

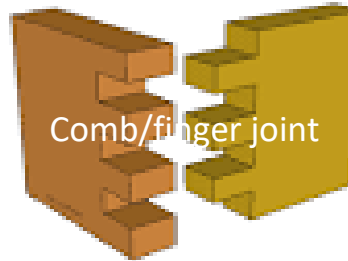
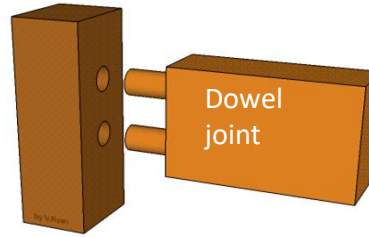
design,

annotate

CAD

2D design

Ploughed groove



Tools and Equipment

Here are the tools and equipment used to manufacture a timber plane:

Try Square used to mark 90°



Pencil



Steel rule



Tenon saw

Used to cut straight lines



Sander :

used to remove small areas of timber and make the parts smooth



Pillar Drill : used to create accurate holes in Materials

2D Design

Name:

Can you match the 2D Design tools with the correct function?



Used to draw ellipses.

Used to draw freeform curves.

Used to draw arcs.

Used to add text.

Used to draw straight lines.

Used to draw rectangles.

Lamp Achievement Descriptors

Good

- Lamp completed to a good standard
- 1mm gap between the joints
- All components made close to the correct size
- 90-degree angle on all of the corners
- Some saw and pencil marks evident
- Paint and stain applied with a good level of accuracy
- Laser ply used but not acrylic
- Vectorised element on 2D design

Better

- Lamp completed to a good standard
- 1mm or less gaps between the joints
- All components made close to the correct size
- 90-degree angle on all of the corners
- Very few saw and pencil marks evident
- Paint and stain applied with a good level of accuracy
- Laser ply and acrylic used
- Vectorised and hand drawn and scanned element on 2D design

The Best

- Lamp completed to an excellent standard
- No gaps between the joints
- All components made to the correct size
- 90-degree angle on all of the corners
- No saw and pencil marks evident
- Paint and stain applied with an excellent level of accuracy
- Laser ply and acrylic used
- Vectorised and hand drawn and scanned element on 2D design

2D Design Help Sheet

- Use the function keys on the right of the screen for drawing shapes and lines
- Red is used for cut lines
- Blue is used to engrave lines
- Vectorise Bitmaps :
 - Copy and paste a line drawing from google images
 - Select bitmaps from the menu
 - Select vectorise bitmaps a
 - Select monochrome and blue
 - Click on your image
- Contour Image
 - Select contour from the side menu
 - Change the size to 0.00
 - Change the line colour to red
 - Click on the outside of your image

