

# Student Designed Laminated Project Procedure

Name: \_\_\_\_\_

1. Design your laminated project in Inventor. Follow the video tutorials on how to draw it in 3D and produce a paper working drawing that you will use to make your project from.
2. Fill in the sizes of each of your pieces of wood below

**Rough Thickness:**

**Must be close to 1 inch**

**Rough Width:**

**Oversize by 1/2" inch**

**Rough Length:**

**Oversize by 1 inch**

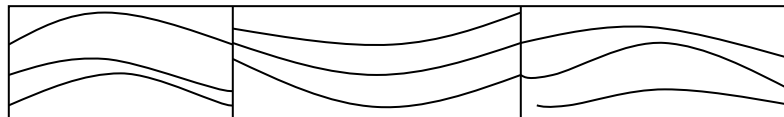
Part Name	Finished Size			Material	Rough Size		
	Thick	Width	Length		Thick	Width	Length

3. Have both your drawing and THIS sheet with the materials filled in above, approved by the teacher by having it initialled. **Do not** loose the drawing or this sheet as it becomes part of your mark later and is used for measuring.
4. Go to the short ends bin **FIRST** and select your wood if possible. Only after you **CANNOT** find a piece of wood in the short ends bin and you have **ASK** the teacher can you take from the main wood pile.
5. Layout the **ROUGH SIZE** on the wood you have chosen and have the teacher check it. **ONLY** after the teacher has checked it do you proceed.
6. Using the Mitre Saw, cut to rough length the pieces you need. **REMEMBER** – it is 1" longer than your final length.
7. If necessary, go to the table saw and rip any extra wood and return it to the short ends bin.  
**(Do this if the board is more that 1" wider than you need)**

8. On all pieces, use the jointer (**check for it being square**)
  - Joint a FACE SIDE (and mark it)
  - Joint a FACE EDGE (and mark it)
  - Go over the wood **as few times as possible** to make the boards flat and square
9. Rip ALL pieces on the Table Saw to final width.

Part Name	Material	Finished Width

10. Dry clamp the pieces together (Look at the diagram below for gluing correctly)
  - clamp ALL face sides on the same side and as even as possible
  - Use bar clamps
  - If there are any gaps between the pieces, go back to the jointer
  - **have it checked by the teacher**



11. Glue the project together ONLY after the teacher has approved it.
  - If it will contact water, use the waterproof glue.
  - Use a wet paper towel to remove any glue.
12. After it has dried, if any glue remains use a scrapper or chisel to remove it.
  - clamp your project to the bench
  - chisel **away** from you!!
13. Hand plane any badly aligned joints and make one side flat.
14. Plane to thickness
  - put the face side down first and plane the opposite side smooth
  - flip the board over and plane the face side smooth
  - try and keep the board as thick as possible

## Re-creating the Shape of Your Laminated Project

15. Re-create the design/shape of your Laminated project by using;
  - Vcarve and CNC routing out the shape you designed (complete the video tutorial)
  - the Table saw or Mitre saw to cut one end square, then to final length or;
  - the Band saw to cut out a circle, then Disc Sand it smooth or;
  - the Band Saw to cut the corners round then Disc Sand;
  - the drill press to put a hole in the project
16. Use the router to radius or chamfer the edges of your project,
17. Sand the entire project starting with 80. Continue with 120, 180 and 220 grits. Don't forget the end grain.
18. Laser Engrave your project to personalize it
19. Apply a finish;
  - a. 2 coats of mineral oil if the project is to be used as a cutting board ( 1 per day)
  - b. 3 coats of water based stain with a foam brush (2 coat per day) Sand with 400 in between
20. Complete an evaluation sheet and submit for marking
  - make sure you include your drawing as it is for marks.