

**Material Decision** After conducting testing as well researching aspects of the different type of woods. I have made the decision of using pine solid timber for both my tabletop and table legs. The reason for this is it has lightweight qualities as well being able to withstand drilling and screwing without fracturing or breaking. These aspects are important as they both are required for the assembly of my table. Another reason I decided to use solid pine timber is because it is biodegradable which means I am taking sustainability into consideration. In comparison to MDF and plywood, solid pine is far stronger than both these types of wood and is recommended for furniture building. If I had to choose a backup material, I would choose plywood because also passed the testing that I had conducted on it. Also, it can be considered stronger and more sustainable than MDF due to MDF being made from sawdust and being held together by toxic glues.

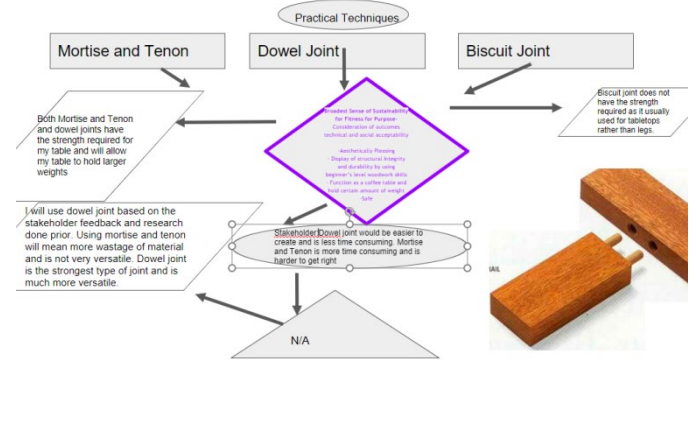
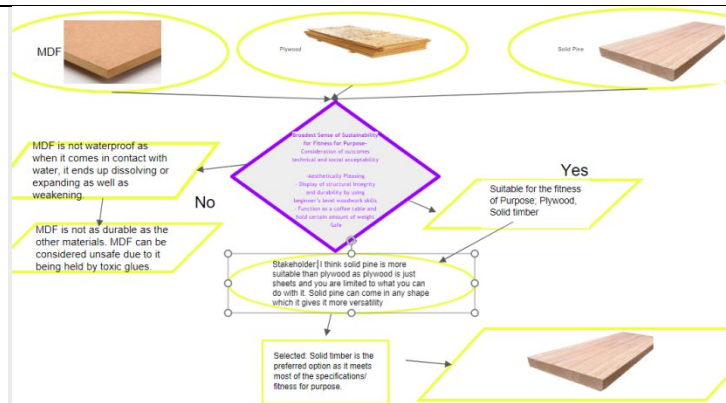
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**Student 1: Low Excellence**  
Intended for teacher use only

**Wood joint decision**

After conducting research on the three types of joints: mortise and tenon, dowel and biscuit joint. I have decided to use dowel joint. The reason for this is because it is a versatile joint and requires less practice and difficulty to make and get right compared to mortise and tenon joint. It is also a joint which provides good security and high strength when compared to biscuit joint but just as fast as making a biscuit joint. If I had to pick a backup joint to use, then I would choose to use mortise and tenon joint for its high strength and durability as well as its good stability and watertight capability. All these qualities are present in a dowel joint.

1



**Consideration of fitness for Purpose; Physical Environment**  
Carpet. Table's legs must be a size in which it won't leave a massive impression on the carpet. Hardwood, tile and concrete. The table must be movable on all flooring without it being damaged (plastic or foam pads at the bottom of the leg). Table must be of a certain weight so the tile isn't damaged.

3

**Consideration of fitness for Purpose; Social Environment**  
People:-Family members-Manufacturer-Guests- Myself

- Easy to understand and build.
- Table must be able to be disassembled and rebuilt in case of repairs.
- Must look aesthetically pleasing.
- Can be used for more than one purpose.
- Recycle/Landfill-Materials must be mostly biodegradable or recycled

3  
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In this photo, I have drilled one set of wood. This is now ready to be joined together. I have tested the joint for misalignment and no misalignment was found. For future steps, I will drill the rest of the pieces of the wood and once they are drilled, I will begin gluing the dowels into the holes.

1





① After trialling both methods of screwing in my tabletop and stakeholder feedback “Doing an angled screw from the bottom will result in the screw sticking out. This is a violation of safety codes. Try to do diagonal screwing from the side of the wood. Countersink from the bottom will still be effective.” The countersink method proved to be more successful. This is because in angled screwing method, the ends of the screws were poking out, this classes my table as unsafe and not complying with codes of practice as someone could hurt themselves if they were to touch the aprons of the table. Screwing the screws in more would result in the top of the table being pierced. These problems did not exist with the countersink method .Therefore, the countersink is a more reliable method to screw in my tabletop.

In this photo, I have cut the dowels that I had attached before and sanded them. The reason I had done this is because my method of measuring and marking resulted in the joints had misaligned. To avoid wasting material as a part of my sustainability specification. I will reuse this piece of wood for my table.



①

Materials applied;

**Stakeholders Feedback:**  
Well done. Prime pine is selected.  
1. It is suitable for the woodwork because of the weight and intensity of the grain.  
2. It is at affordable price

②

Components applied:

**Stakeholders Feedback:**  
To meet the purpose of structural integrity, I applied minimal structure and execute as components. The components I have is tabletop, 4 aprons, 4 stretchers and 4 legs.

②

Practical Techniques applied

**Stakeholders feedback:**  
Each stage used best option out of your knowledge and skill and it is well executed

②

Process applied

**Stakeholders feedback:**  
Followed the code of practice with right process and appropriate techniques.

②

My Technological Outcome

⑥

The dowel joints worked well on solid pine, and I was able to have good and strong joints/connection. My feedback confirmed this to be the better choice of technique to make my table and when she used it this was confirmed. All my techniques I chose really allowed the table to truly come together and be an outcome that achieved fitness for purpose. Therefore, creating a successful outcome.

④ Specifications	Not met	Met	Above	Modify	Stakeholder feedback	⑥ ②
Must function as a coffee table, must be able to support certain weight					The table made is functioning as it works as a coffee table and can support more than the required weight which is useful	
Must be aesthetically pleasing; structural integrity because it gives feeling of balanced, minimal structure and simplicity				In the future, I could apply varnish or stain to my table to give it a more aesthetic look.	The table gives a simple look to it as well as a solid look to it as everything is thick giving it a aggressive look, the table looks great without any stain as it has a natural look but could look nice stained or burned	
Must be safe for everyone to use.				I could smooth out some of the edges more.	Table is safe for all ages to use but the sides could be sanded down to be smoother in case of someone running into it	