

No part of the candidate's evidence in this exemplar material may be presented in an external assessment for the purpose of gaining an NZQA qualification or award.



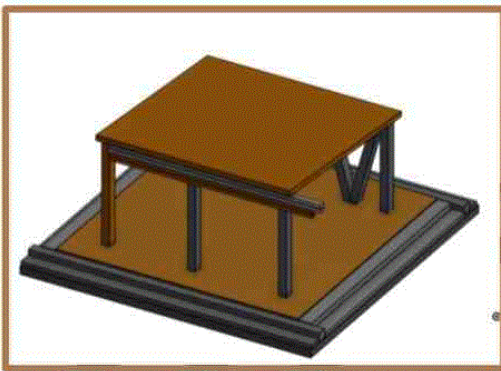
Level 1 Design and Visual Communication 2024

**92002 Develop product or spatial design ideas
informed by the consideration of people**

Achievement

TOTAL 03

Outdoor Seating



Brief and Specification

Brief:

Following the innovative, creative design of a coffee vendor shelter at TePūtake o Tawa it is now necessary to design a suitable option for seating. Design suitable seating to accompany the refreshment kiosk and shelter suitable to meet the needs of the potential users. Your design must be in keeping with your shelter design and be in keeping with the previous design influences.

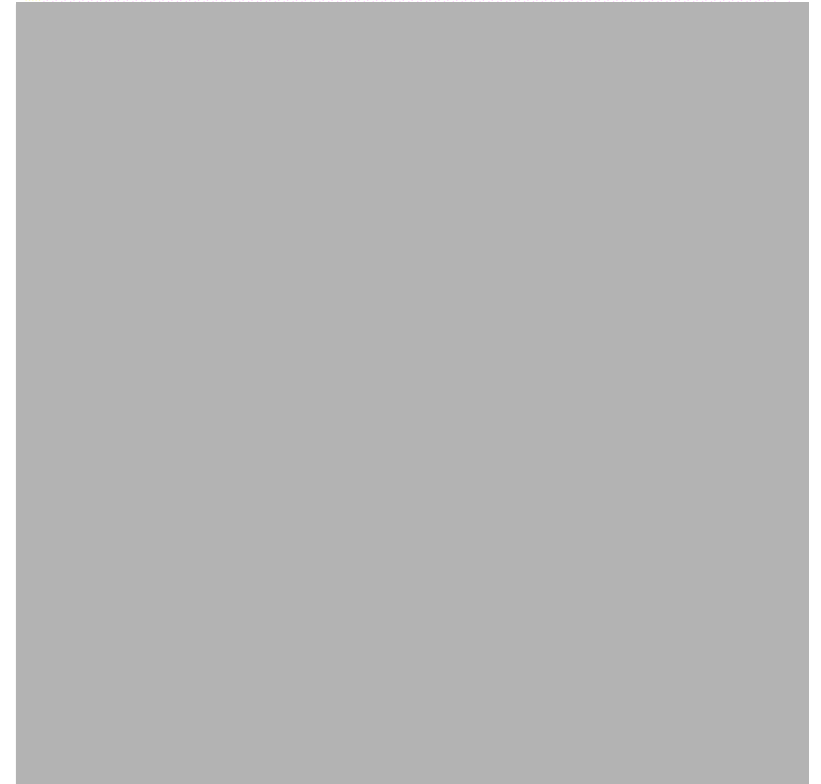
Specification:

The refreshment seating must:

1. Must be made from materials that are sustainable and durable for outdoor use.
2. Must include a number of components that are assembled using joining methods, such as mortise and tenon, dovetail, dowel, bolting, welding and other technologies you find through research.
3. The seating must encompass the values and Te ao Māori principles of Whanaungatanga, Manaakitanga and Kotahitanga. (Connections, relationships and togetherness).
4. Be ergonomically comfortable to sit on and create a safe place for all students to socialise in.
5. Your design must be in keeping with your shelter design and be in keeping with the previous design influences.
6. There must be overall seating to accommodate 16 people.

Shelter project design influence 1

Jasmax is a New Zealand Architecture and the design firm known for its original and sustainable approach to architecture. The firm was settled in 1963, the firm has grown to become one of the largest and most influential in the country. Over the last 60 years, Jasmax firms operating in Auckland, Wellington, Christchurch and Sydney. Jasmax combines architecture, interior design, landscape architecture, Urban designs and more.



Source materials

Material for the Tables:

- **Solid Wood:** Solid wood is a valuable material when making tables and it comes in various types like Oak and maple.
- **Monterey Cypress:** Monterey Cypress is naturally resistant to decay and pests, making it ideal for both indoor and outdoor table tops. It is also good in structural stability, which minimizes warping and cracking, ensuring the table remains functional over time and doesn't rot.

Material for the Table Stand:

- **Galvanized Steel:** Galvanized Steel is coated in zinc to protect the steel from moisture and environmental factors, making it ideal for both indoor and outdoor use.

Shelter project design influence 2

“Kawaki and the Shark man” is a story that involves around the kawaking, a young polynesian boy, who encounters a mysterious and dangerous character known as the Shark Man. The story straighten outs as Kwariki learns of the Shark Mans vicious intentions and the threats he poses to the local community. Displaying courage and resourcefulness, Kwariki comes up with a clever plan to outwit the Shark Man, ultimately protecting his people from harm. This narrative highlights the themes of Bravery and Intelligence.



Existing product design influence



Year 12 Eating Area

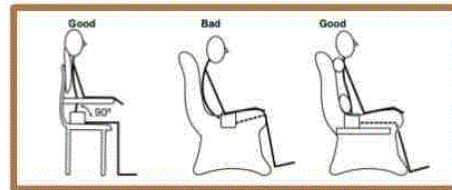


Year 7 Eating Area



12 Eating

Area, the bars, that is connected, to support the chairs and the tables are welded together.



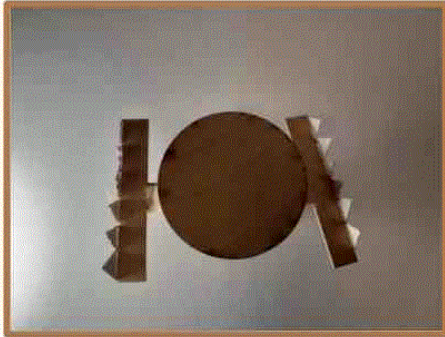
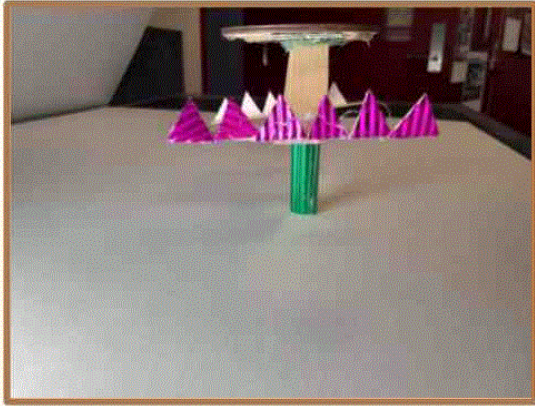
Ergonomic Drawing.

Identify characteristics



- Jasmx has incorporated Maori inspiration, so I would like to incorporate the Christchurch Boys' High School Hall, as in the outside, it has a triangle, zig zag pattern, where I can incorporate, my Te Ao Maori stories, the Kawaki and the Shark man, as I can use shark tooth as my zig zag, triangle pattern from Jasmx.

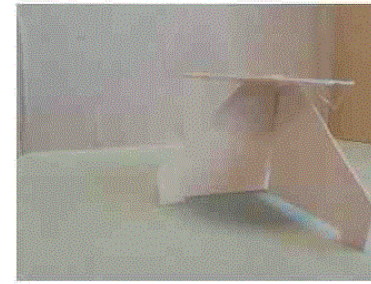
Generate ideas Modelling



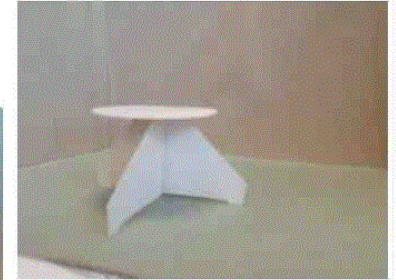
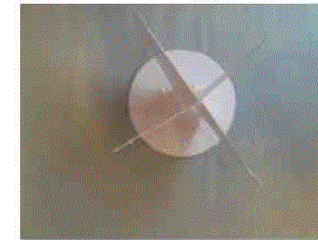
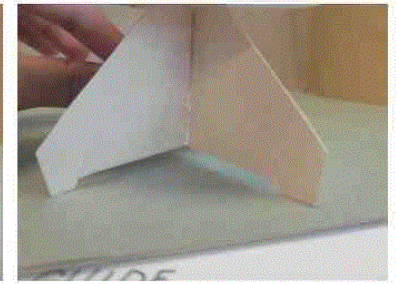
This is my prototype on my cafe seating area.

I have added a male and a female silhouette on my prototype of my cafe seating area.

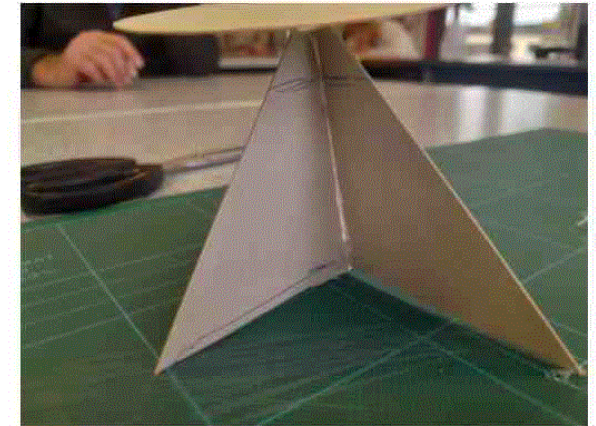
Since adding the human silhouette, we can see that the table top, from the prototype is higher than the human silhouette. So in my opinion, I should lower the height of the table so than, the people sitting on the table, can be comfortable.



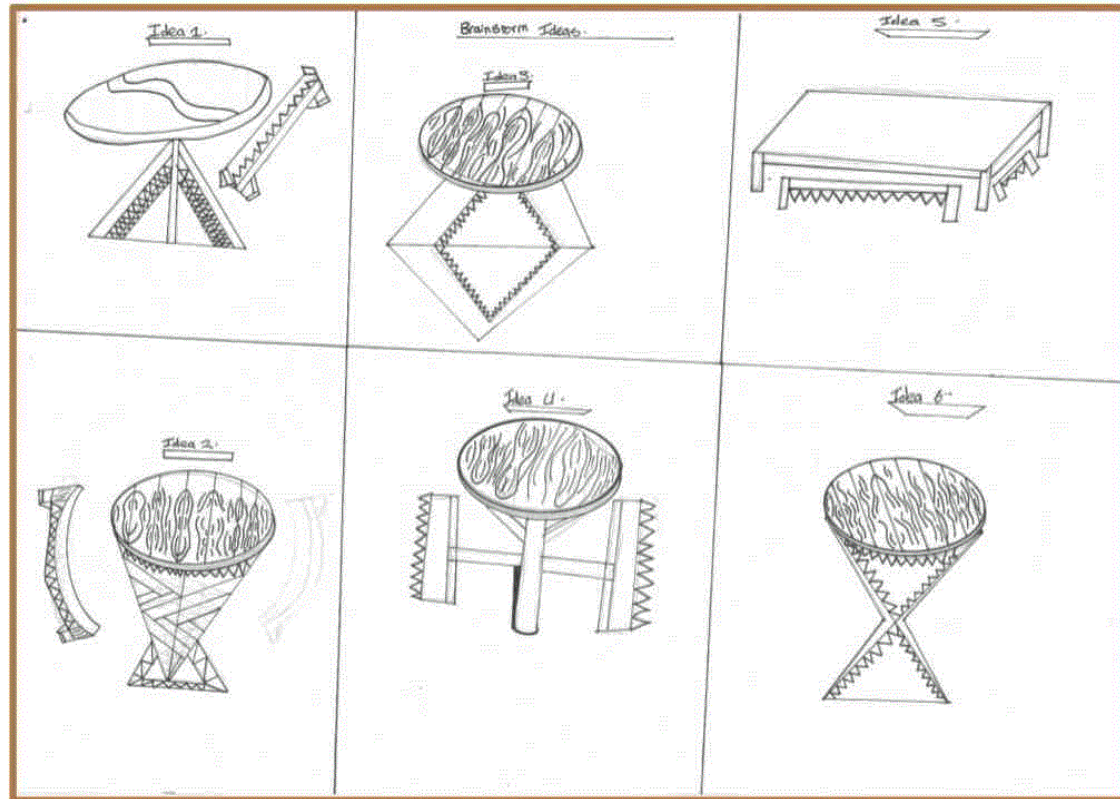
This is my prototype on Modelling Idea Table.



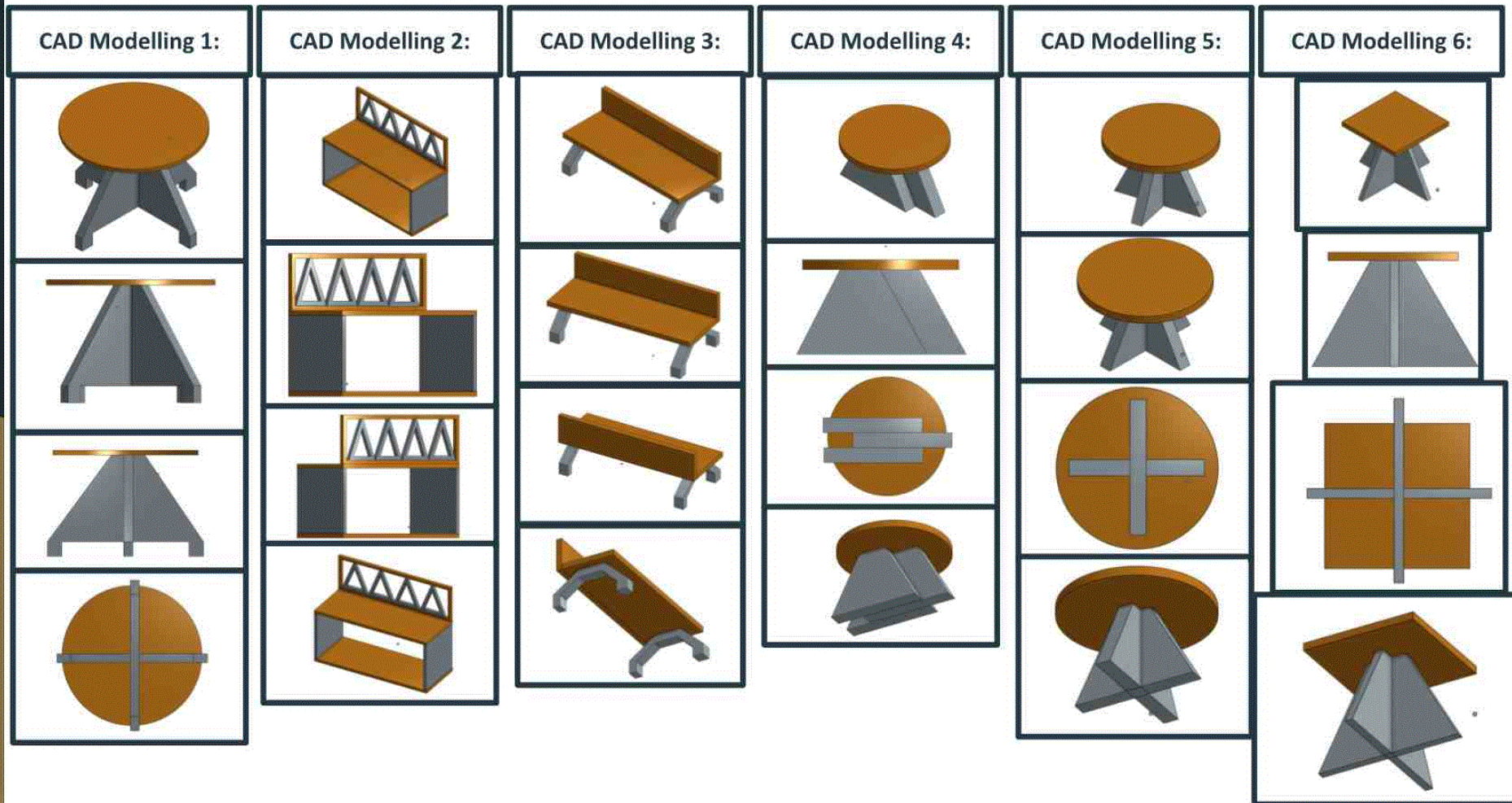
This is my prototype on Modelling Idea Table 2.



Generate ideas Sketching



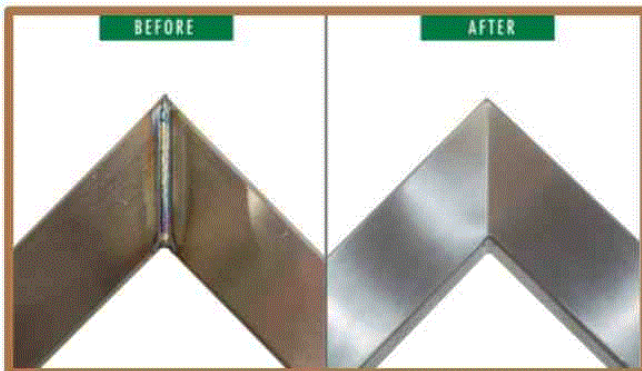
Explore design ideas CAD Modelling



Develop Idea

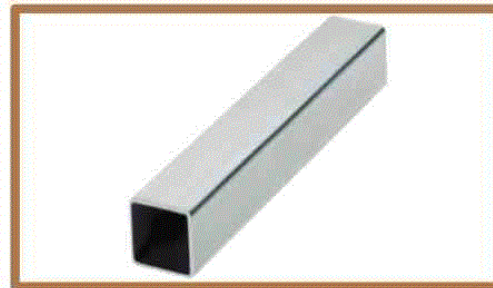
Methods Construction:

Welding: A method of construction is Miter Joint. Miter Joint is a welding technique where two pieces of material are joined at a 45-degree angle to form clean, seamless corners, making it especially popular in table construction. This method enhances the aesthetic appeal by reducing the visibility of welds while providing a strong bond due to the larger surface area of welding.



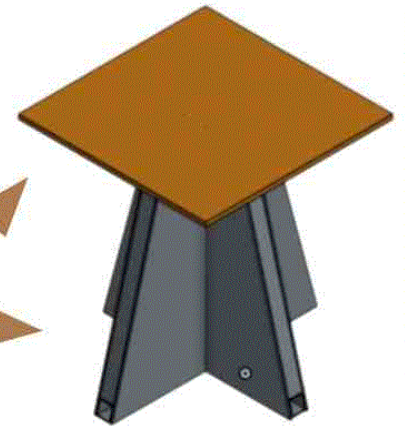
Materials Used:

Galvanized Steel: Galvanized steel is coated with zinc to prevent corrosion, making it ideal for table construction. Its durability enhances resistance to rust, especially in outdoors environments, while requiring minimal maintenance.

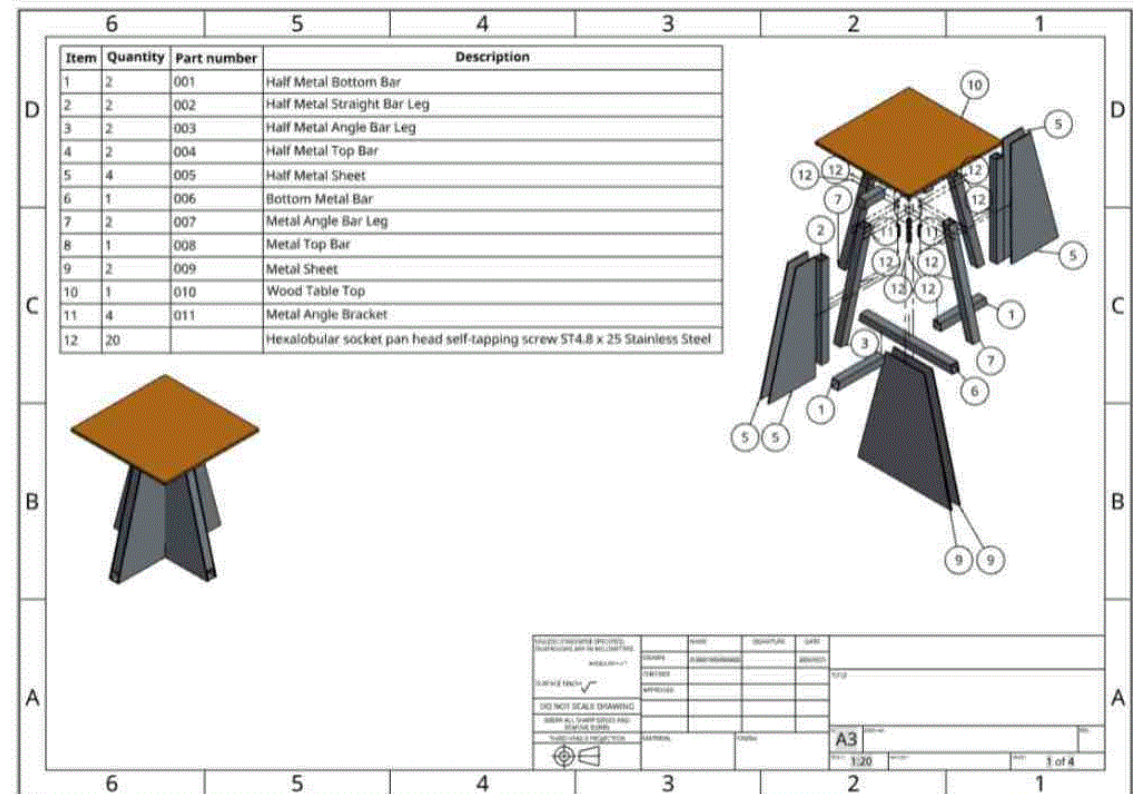
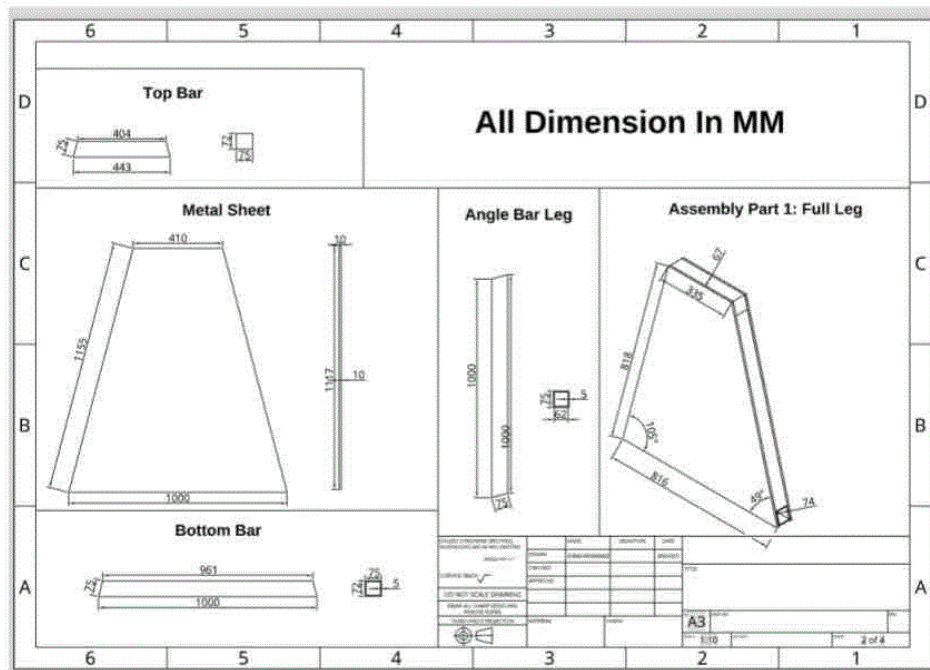


Materials Used:

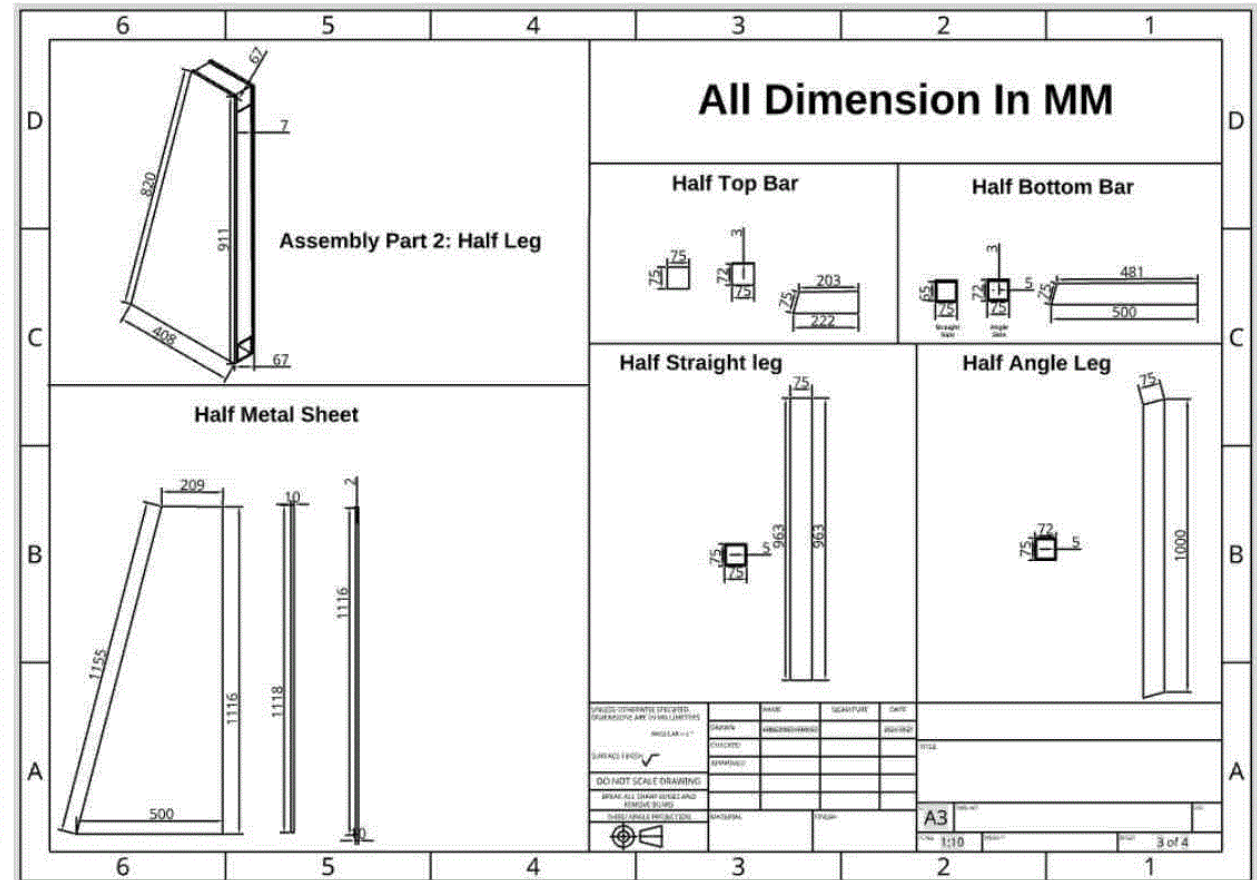
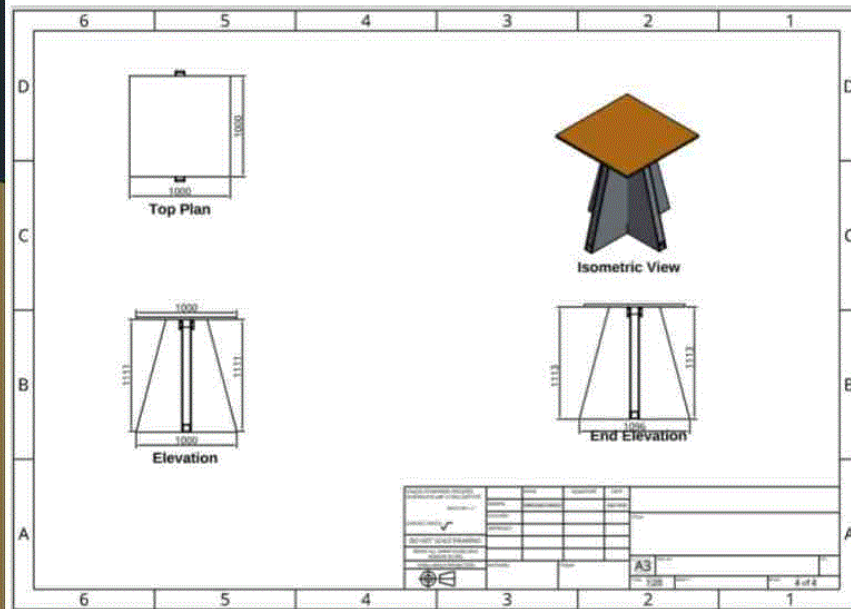
Monterey Cypress: Monterey Cypress is a durable and appealing wood known for its natural protect to decay and insects, making it an excellent choice for tables tops. Its unique grain patterns and rich colours, enhancing visual appeal. Monterey Cypress is a super lightweight wood, yet strong, by providing strength and durability.



Final Solution: Orthographic Drawings 1

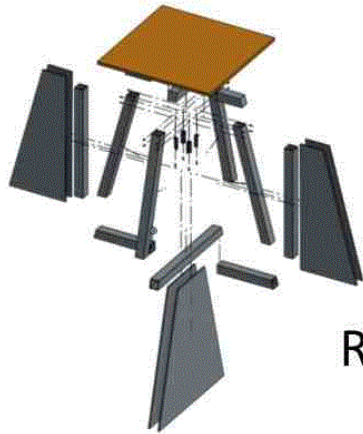
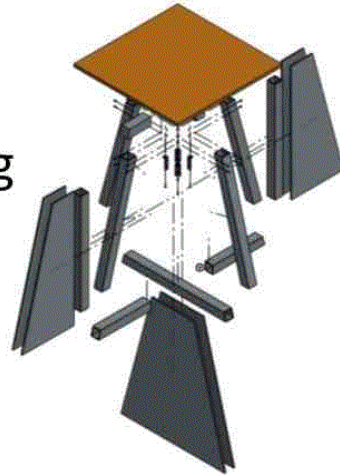


Final Solution: Orthographic Drawings 2

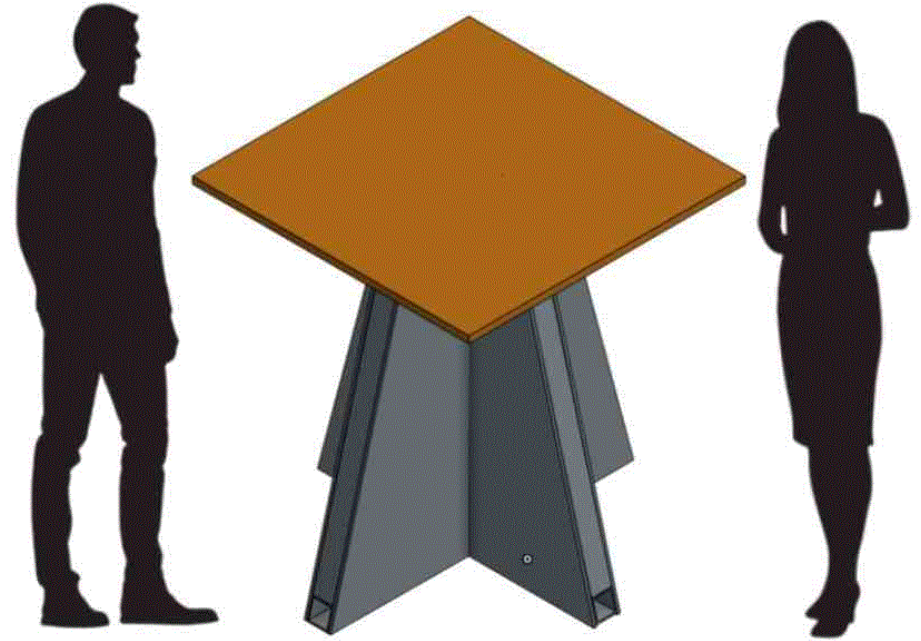


Final Solution:

Isometric Point of Exploding



Right Angle Top Point of Exploding



Final Evaluation

Following the brief and specifications. I have designed on onshape has a height dimension of 1113mm, which includes the table width of 25mm x 25mm. I have used galvanized steel, which contains a zinc coating for my based legs, and I have also used Monterey Cypress wood, produced in New Zealand, which is very durable and stable and typically used for table tops. I have also incorporated my maori inspiration story (Kawaki and the Shark Man, and it's shark tooth) and my inspiration of Jazmax. I have used miter joint weld, which is a long lasting weld and can be stable for my legs. I have Hexalobular socket pan head self-tapping screw ST4.8 x 25 Stainless Steel and angle bracket, so then my Galvanized steel table legs and Monterey Cypress wood table top, could be connected together into a table. Overall I have combined all my inspirations and incorporated with different types of materials.

Achievement

Subject: Design and Visual Communication

Standard: 92002

Total score: 03

Grade score	Marker commentary
A3	<p>The submission explores seating designs to be used at an outdoor coffee vendor. A range of design ideas are explored using quick models, freehand sketches, and CAD modelling. The idea moves from seating to a table design. One of these designs is chosen, although the reason for choosing is not stated.</p> <p>The submission shows details of the parts that make up the table design and the final design is clear and is shown with people nearby. The final design is very similar to the initial concept.</p> <p>To achieve at a higher level, the submission would need to show progression to the chosen design, that makes changes that are connected to people and the context. It would also need to communicate design decisions that are connected to people more clearly.</p>

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Level 1 Design and Visual Communication 2024

**92002 Develop product or spatial design ideas
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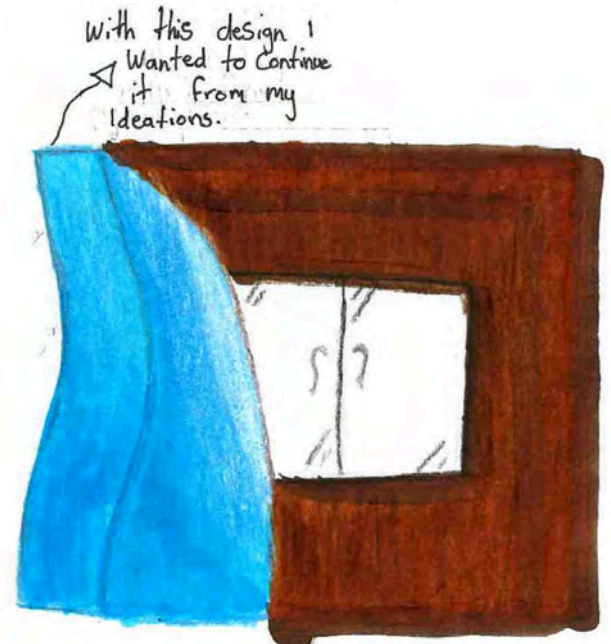
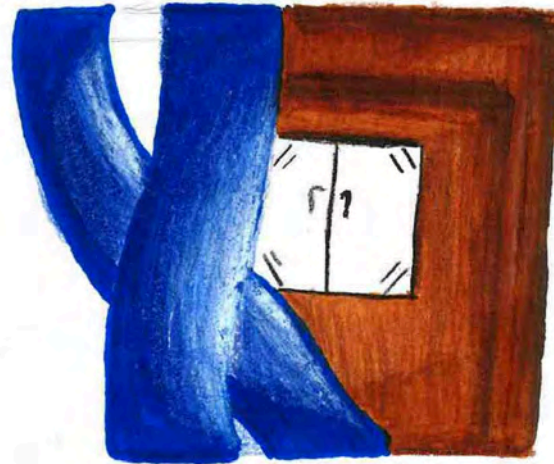
Achievement

TOTAL 03

Concepts:



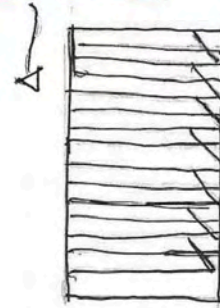
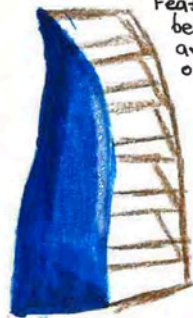
With this bit I have taken it from the light blue bit and put it into a bigger context.



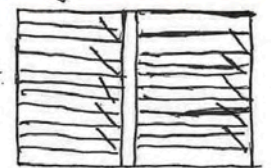
With this design I wanted to continue it from my Ideations.



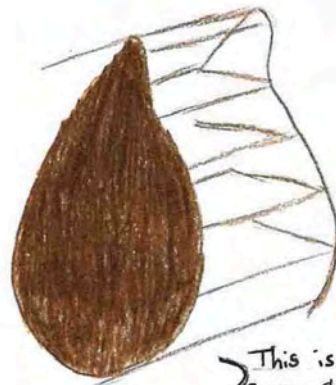
These designs have the same features but have been changed around to get other ideas.



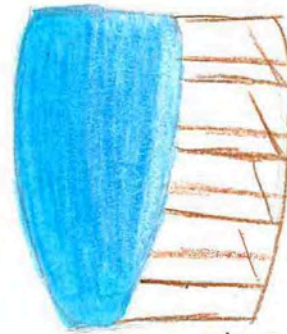
This is an example of what would be in the Pataka Kai.



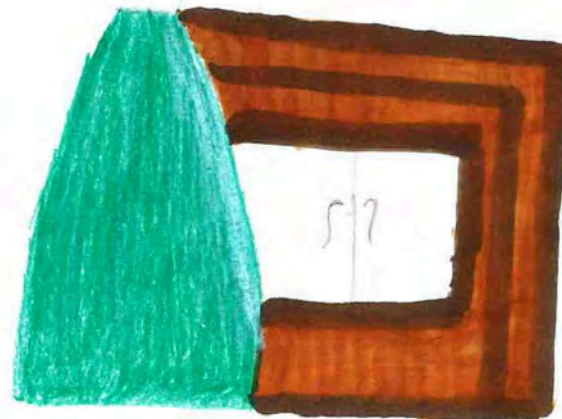
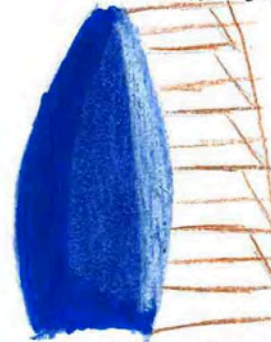
Concepts:



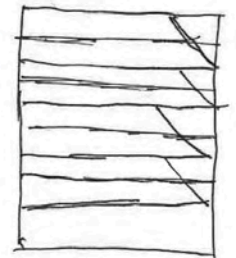
This is the same shape and design but have just flipped it around.



This is the same idea but it has been turned 180° to have an idea of what it looks like the other way.

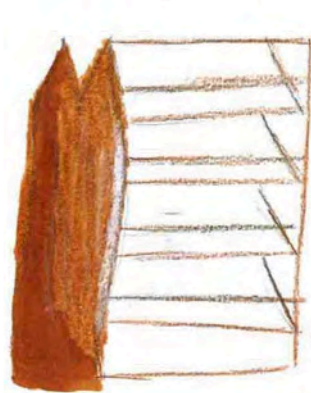


With these designs I have taken the pukeka wing and turned it into a pataka kai.

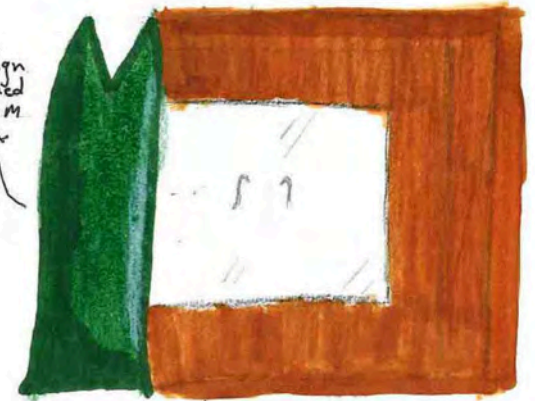


This is an example of what would be inside of the pataka kai.

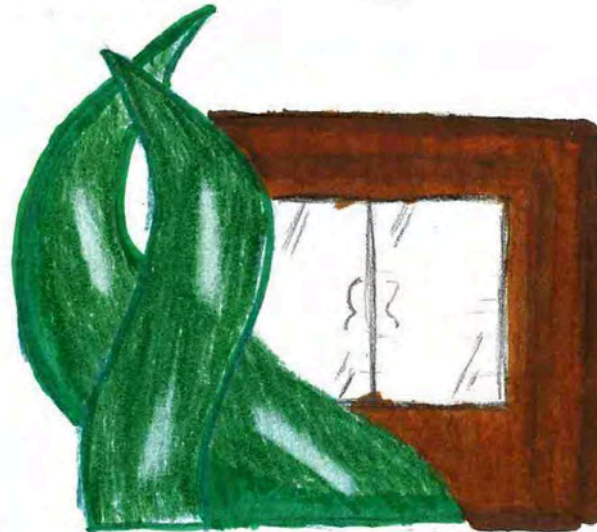
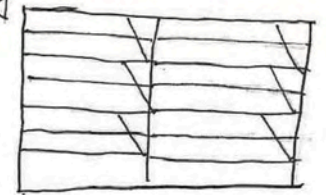
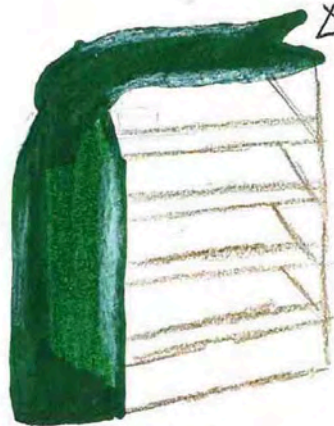
Concepts:



With this design I have continued it through from my ideations.



These designs all look really similar but have different features.



This is an example of what the inside of the Pataka Kai would look like.

This is what the outside would look like.

In the top 2 on the left designs I really liked them and wanted to put them together but use the colour green instead of brown.



Development 1

Development: (Of Concepts)

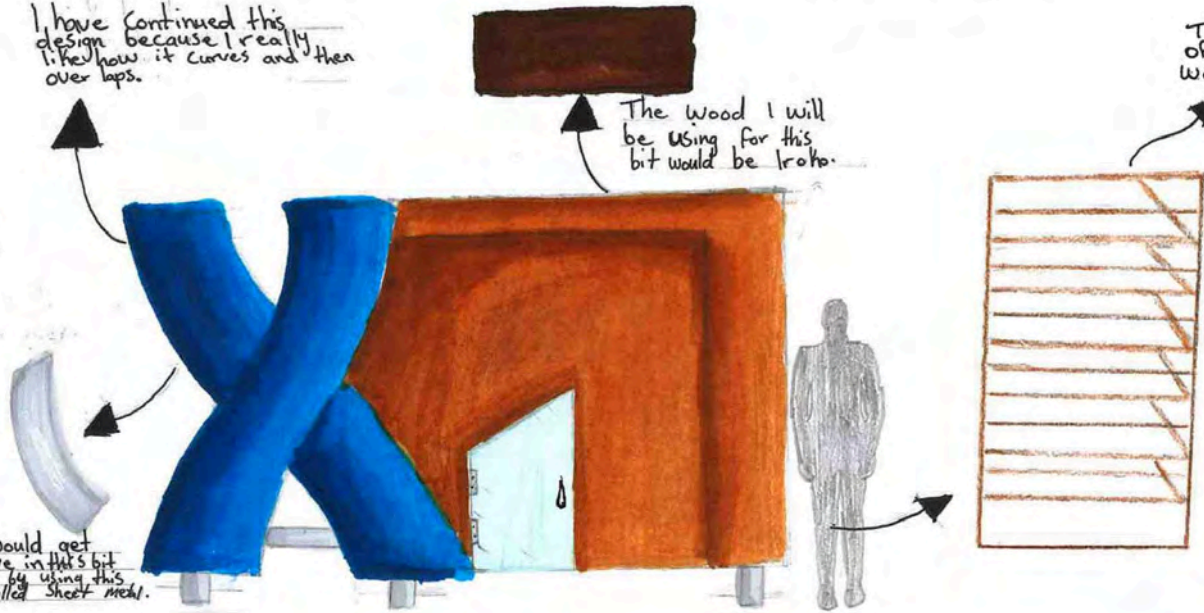
I have continued this design because I really like how it curves and then over laps.

This wood is good because it's not only waterproof but its resistant to rot and insects.

The wood I will be using for this bit would be Iroko.

This is an example of what the shelving would look like inside.

How I would get the curve in this bit would be by using this Metal called sheet metal.



Development 2

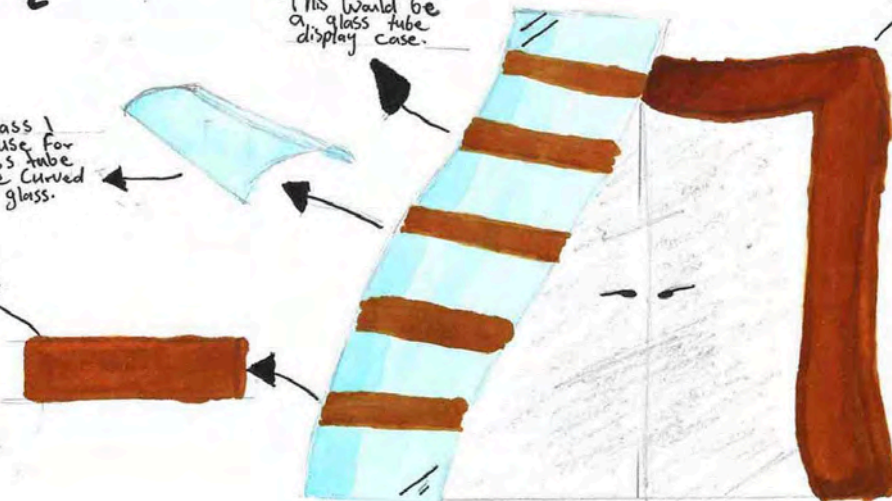
This would be a glass tube display case.

The glass I would use for the glass tube would be curved tempered glass.

The wood I would use for the doors is called teak wood.

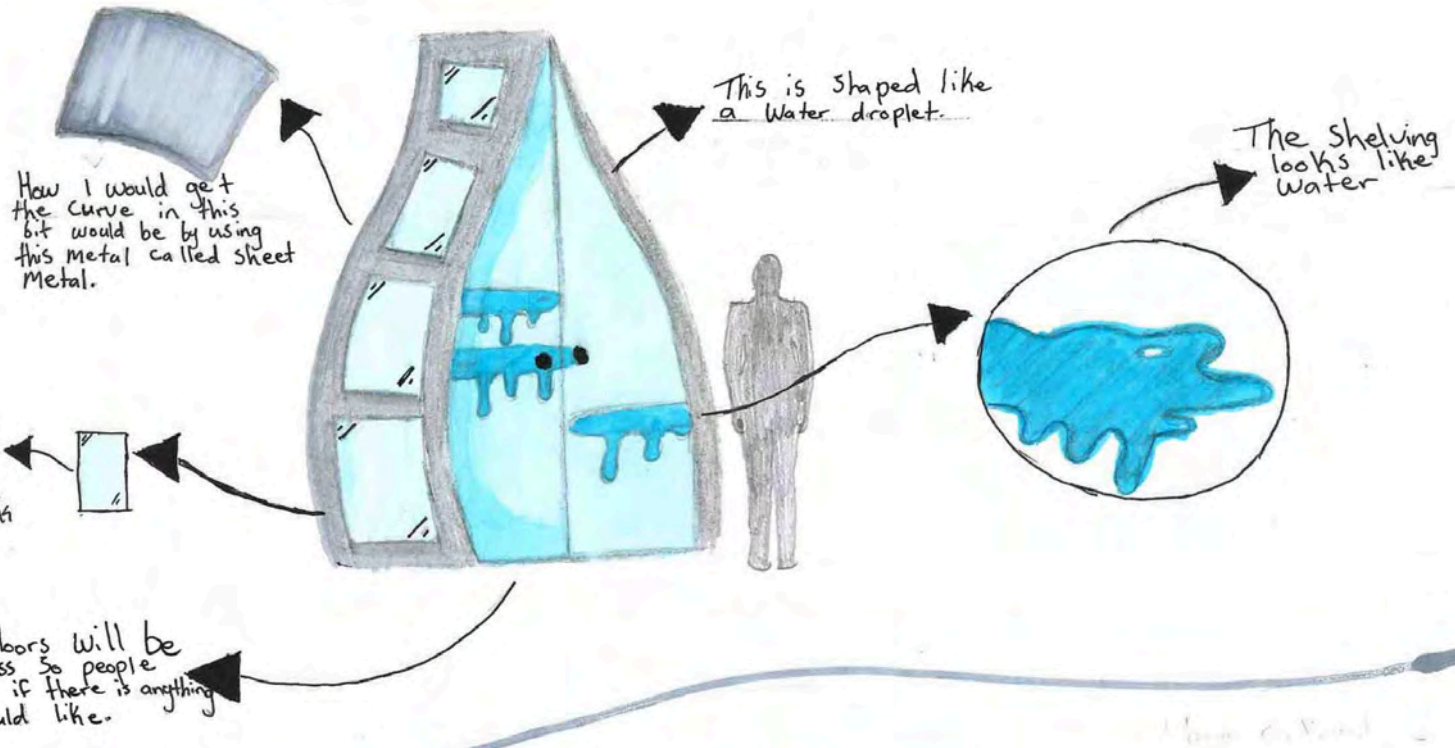
This is a support Arch that would be wood.

These doors would be solid wood.

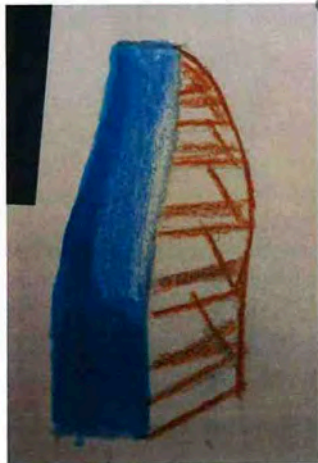


Development: (Of Concepts)

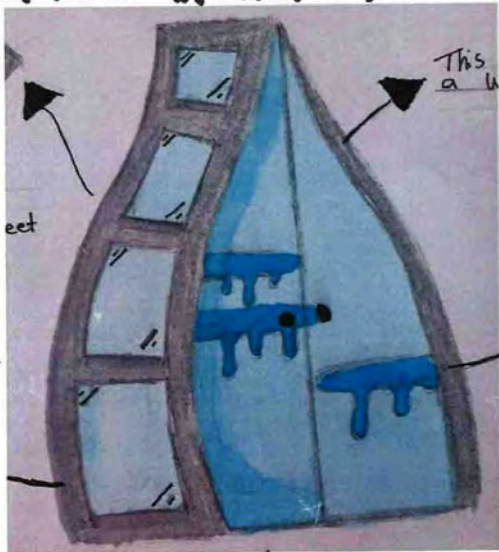
Development 3



Development 4



Development: (More in depth)



The screw I would use for the metal would be a screw named a self-drilling screw.



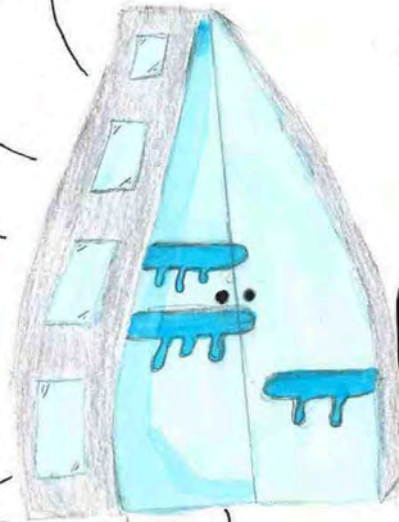
How I would get the curve would be by using this metal called sheet metal.



The type of glass I will use is called float glass.

These would be windows so people could see if they liked the look of anything.

I really like how I have continued this design throughout my developments.

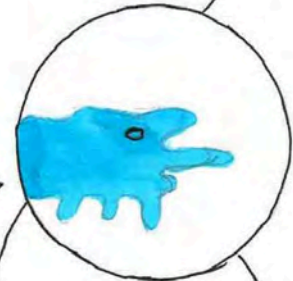


These would be full glass doors to make it easy to find something they like.

The wood I would use for my shelving is a wood called maple wood.



These will be the shelves in the Pataka Kai and there would be 4 shelves in it.



The shelving looks like water.

Material

- How I will get the Curve will be using a metal called Sheet metal.

The pataka kai will be concreted into the peat soil.

- I will also be using tempered glass for both the windows and the doors.

Development:

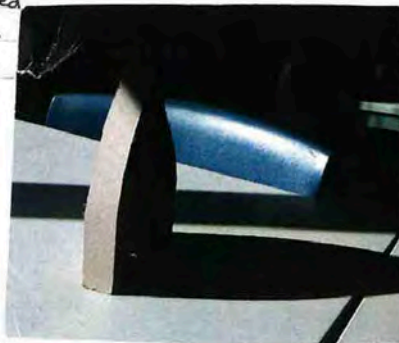
Inspo

I have used the curves because that is something my influential designer really liked using.



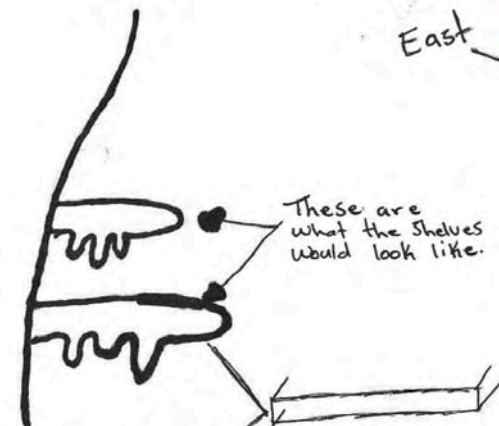
The Curve is also inspired by the whale that came up the Pihako river.

South



East

- Mock up on site -



These are what the shelves would look like.

This would be used to hold the food on the shelf.

This is the back of my design.



or there could be baskets to store things like fruit and vegetables!

The screw I would use for the metal would be a self drilling screw.

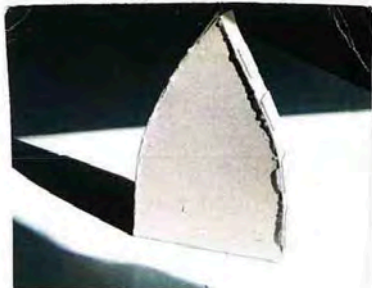


The type of door hinge I would use are Salice Hinges



These are 2 glass doors that would open right up for people to see what they could get.

This is a side angle of what it looks like with the windows to look through.



North

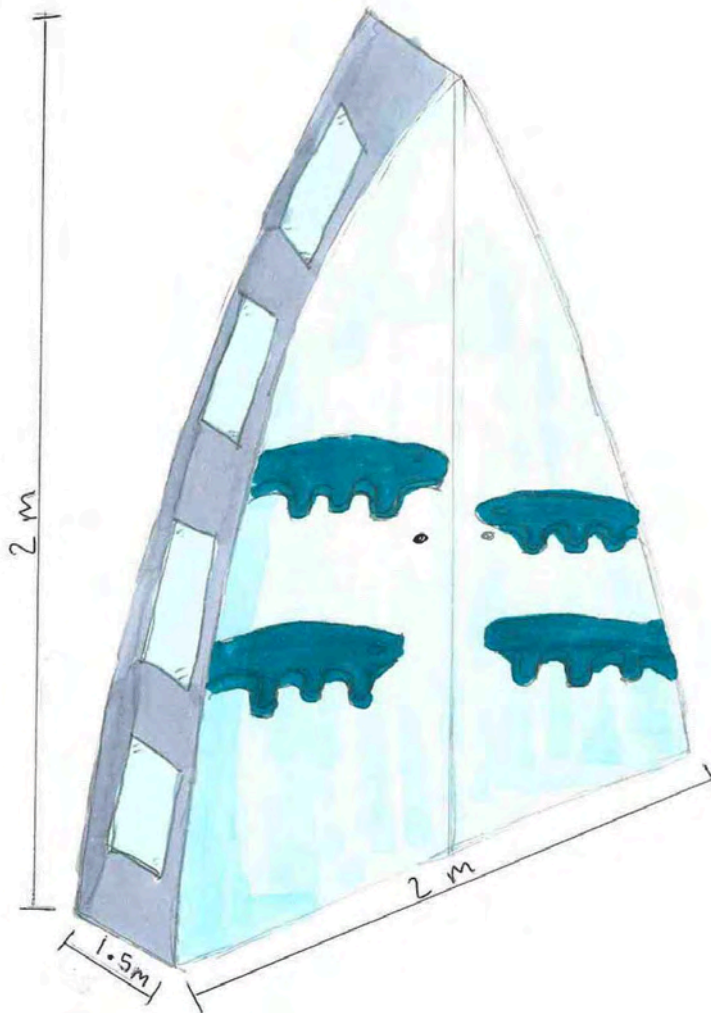
Sun direction
Because the sun rises from the east the sun won't hit directly on the left side allowing some sun to go in the pataka kai until the sun is starting to set.

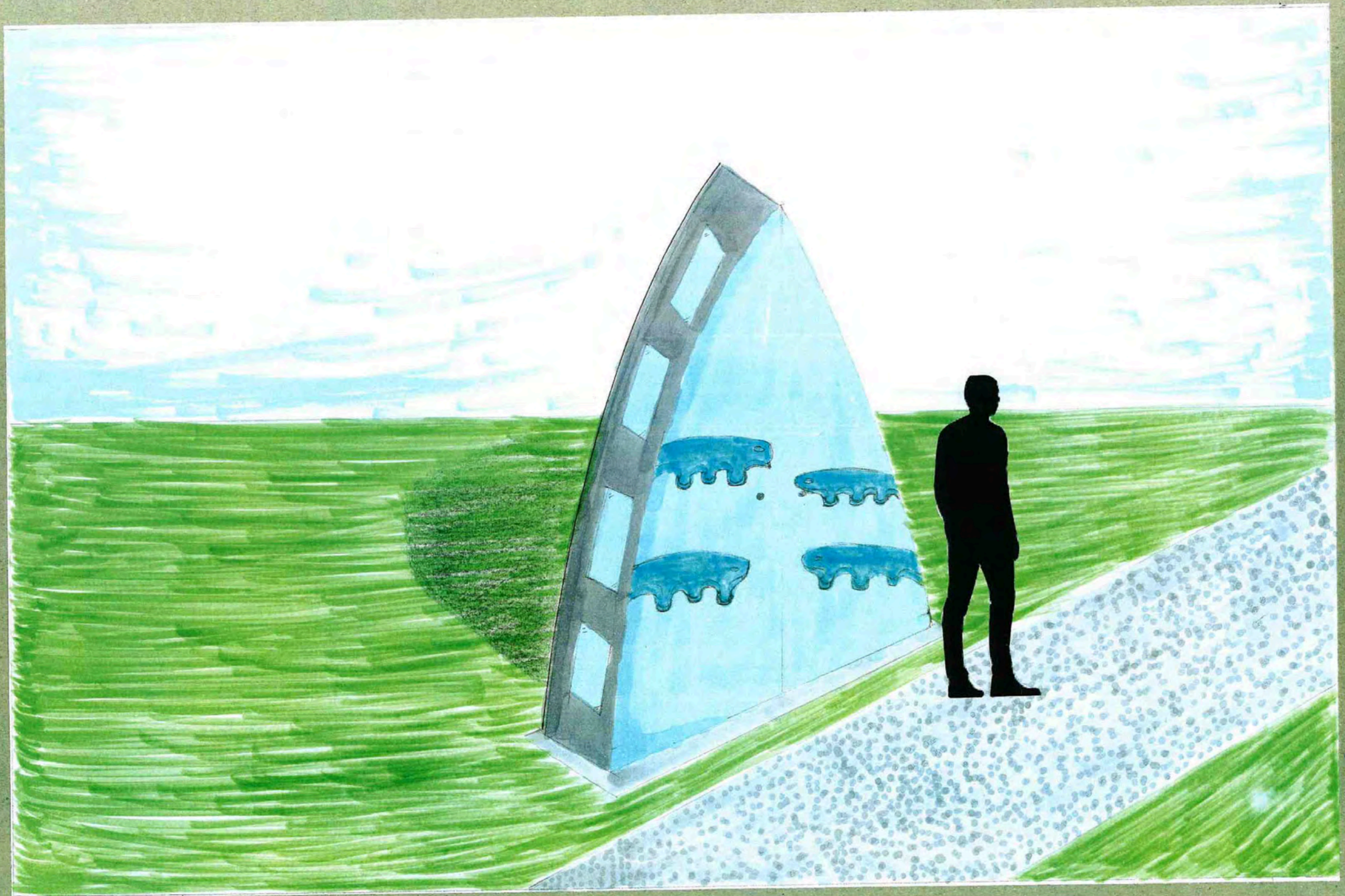
Cons of the site
A pro is it is visible to the school and community.

West



Development Finalised





Achievement

Subject: Design and Visual Communication

Standard: 92002

Total score: 03

Grade score	Marker commentary
A3	<p>This submission explores designs for a pātaka kai, a food pantry. The project explores a range of aesthetic design ideas, which are then combined to create more ideas.</p> <p>The submission attempts to show the main features of the design by zooming in on different aspects. No further information is communicated through these sketches and the design is shown from one angle in all sketches.</p> <p>A silhouette person is shown to indicate size and use.</p> <p>To achieve at a higher level, this project would show more of the features of the pātaka kai, such as the doors being open and the shelves being used to hold food. The design does not show any progression or change and would also need to do this to move to Merit.</p>