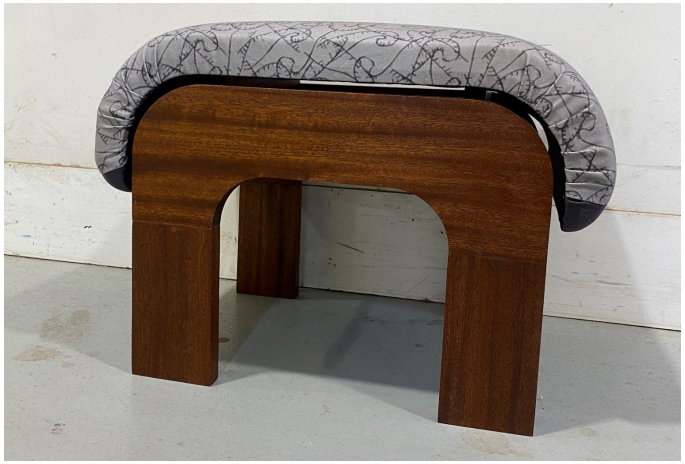
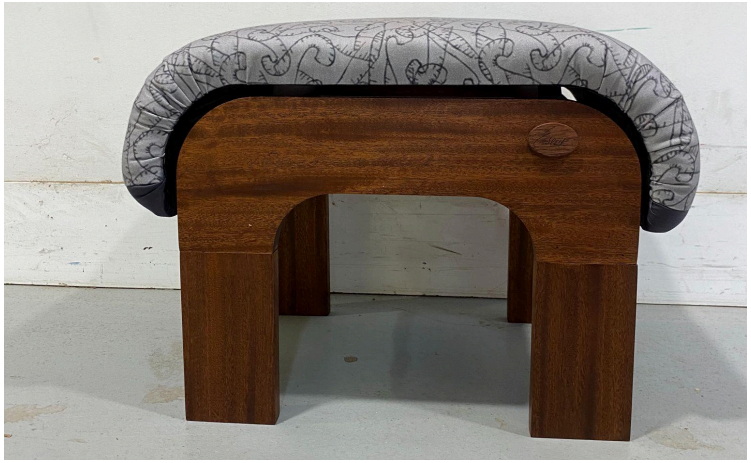
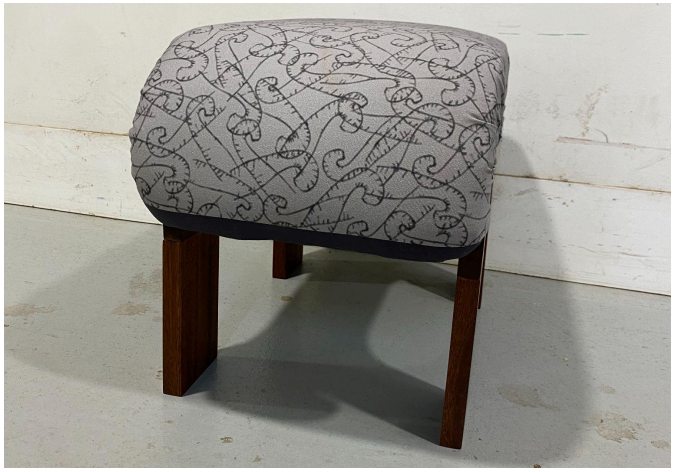
Final photos:



Front



Back



Side

Badge

Practical problem solving:

Problem 1: timber width 	During week 1 when we received our timber. Danyon had cut the timber based on a rough guide of what we needed. Unfortunately for me this meant the width of the timber was not wide enough to cut the bottom of my legs with the grain horizontal. Originally the plan was for all the grain to be going horizontal to create a seamless finish. To resolve this issue I instead cut the bottom of the legs with the grain going vertically.
Problem 2: Domino cutter -  	When setting up the domino cutter to cut on faces. I failed to double check that all settings were correct. I unfortunately forgot to change the depth from when I was previously using it. This meant to cut a hole with the depth of 20 mm instead of 15mm. This put a hole right through my timber. With the help from Ruth and Danyon the solution was to leave that hole and correctly cut out the remaining 3 and we would add some kind of cover later. The first idea was to cover the hole with an eye but I feel as though because it was symmetrical that it would look more like the elephant is winking. The second idea was to add elephant ears but throughout the design process I really want to make the stool symbolic of an elephant and felt the ears were ‘showing not telling’. So I steered away from telling it to keep it still imaginative. I decided to cover the hole with a badge instead engraved with my maker's mark just large enough to cover the hole. I purposely made the horizontal so it complimented the curve in the seat. I was happy with my final choice and felt the addition of my maker's mark tied together the finished design with the designer.
Problem 3: Router gouge 	During the process of routing the curves of my stool, I had some issues because of the end grain. To do my best to prevent this from happening on the templet I labeled ‘flush’ (templet facing up and ‘pattern’ (templet facing down) to ensure the grain was always going the correct way. The router was starting to catch so to eliminate it even further I used the drop saw to take off as much excess as possible. Unfortunately this still wasn't enough and the router created a gouge in the end grain of my timber. To fix this I used packing gel, which I mixed up with sanding dust I had collected. I packed the hole, allowed it to dry and sanded it down, giving it a flush clean finish.
Problem 4: Fabric length -	During week 3 when we designed our fabric I was aware that our max size was 700x500 mm. Unfortunately when designing my seat I forgot to take this into consideration. The week we got our

 	fabric back I was concerned the fabric was going to be too short however measured up against the ply it was just long enough . Again I was forgetting to take the extra length of the foam and wadding in. Unfortunately after I had cut the foam and wadding the fabric was significantly too short. To resolve this I decided I was going to sew an extra panel to each side to lengthen the fabric. At spotlight I picked out both a light grey and a charcoal trying my best to pick the appropriate colour match. I bought 300 mm of each one to test at home. Upon sewing 1500 mm of one colour to each end I decided after careful consideration that the charcoal looked better. I felt it looked like instead of hiding the mistake I was owning it. Once the fabric was upholstered on to the ply it was alluding to the idea that the elephant had just walked in water.

Evaluation:

Area:	***Evaluation:***
Functionality	Through modeling, testing and researching existing designs I was able to produce a stool both functional as a seat for a child and a food stool for an adult. Through conducting research both primary and secondary I was able to determine the appropriate anthropometrics for a seat child and leg rest for an adult. By undergoing a prototype using foam modeling I was able to determine the limitations of the stool in a small scale. With detailed research of existing stools, I ruled out difficulty, basic designs, and saw that functionality was of top priority over aesthetics.
Ergonomics	The comfort of the end user is highly researched and considered based on the target market anthropometrics. The height of the stool is the appropriate seating height of an individual who is 120cm approx. and 6~8 year old and fits in with the height of an average seat to be used as a footstool.
Materials	I chose to use sapele mahogany due to its deep rich colour and closest representation of an elephant. Synthetic material was the only option for our pattern fabric to be printed on. If I was to complete this task again I would look deeper into linen fabric as it is highly sustainable and more high end.
Manufacturing	Domino joints were chosen over the mortise and tendons purely due to my skill level. Due to the design and construction the added structure that a mortise and tenon joint would add is not necessary. The use of large machinery like the band saw table saw, disk sander, laser cutter, drop saw and router all assisted the manufacturing of the low stool.

Durability	Due to time constraints the testing of durability is only minimal and conducted through secondary research. With the research I determined appropriate materials including timbers, adhesive, joints and fabrics. I decided to go with sapele mahogany as it is very durable and strong which is needed to ensure the stool does not end up as a pile of sticks. I chose PVA over epoxy even though it is reduced in strength for its convenience and application process. I also had completed testing with construction processes and positioned my joints horizontal instead of vertical to bear most of the weight instead of relying on adhesives. The use of synthetic material was chosen as the cushion is a high traffic area being sat and stepped on and synthetic material from my research were the most durable.
Aesthetics	The finished stool is very visually appealing to both my target market and the wider community, incorporating a unique and eye catching design. The stool is representative of an elephant incorporating wide arched legs, abstract elephant trunks on the upholstery, charcoal fabric panels representing elephants wet feet and the pleting of the fabric around the curves and representative of elephant wrinkles and skin. Through research I determined sapele mahogany to be an appropriate timber choice due to its golden to dark reddish brown best representative of an elephant.
Sustainability	Sustainability is not the highest constraint hit. Spalepe mahogany is at risk of extinction but was the only timber available in the dark deep brown colour. I sacrificed sustainability in order to align better with the aesthetics. I did however use the process of ripping to save on half the amount of timber needed. If I was to complete this stool again I would pay more attention to sustainability to better align with Taronga Zoos mission.
Time	Over the four weeks I was able to successfully design, produce and evaluate an upholstered low stool completing it to a high standard. I worked diligently and effectively to stay up to date with the construction of my stool. I did fall behind in the folio component not completing it consistently as I went.
WHS	Due to being a child's seat and used in a common area of the house I wanted to ensure the stool was safe for children. The finish - osmo is safe once completely dry meaning there will be no harm to children. The addition of no angles or sharp corners meaning there is no harm to children or adults.
Dimensions	My stool fits the appropriate measurements of the design brief 350 x 400 x 300 mm.
Brand alignment	My stool fits the design brief relating to Taronga Zoo and directly represents an elephant. If I was to complete this stool again I would add more of a direct link to Taronga including the logo on the badge instead of my maker's mark. I would still include my maker's mark but add it in a different spot.