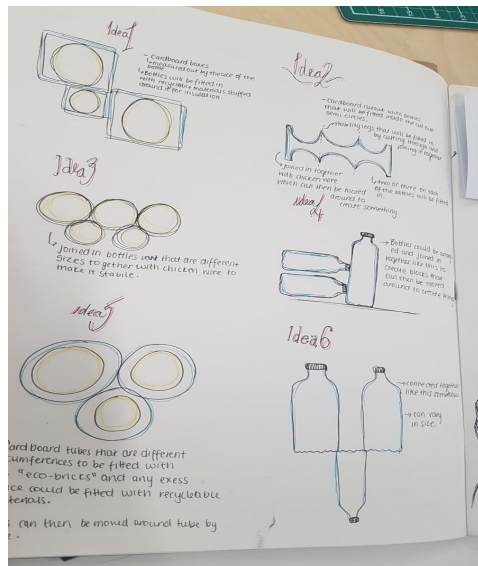


## Eco-Bricks Group Project



We were put in groups of four/ five people and set a group project to use eco bricks to make a homeless shelter. This involved using eco bricks and one hundred percent recycled material to make a shelter able to deal with the outside conditions .

In my group we had five people, Viktoria, Clare, Amy, Ida, and myself. From our brief of what we had been tasked to work in our team and brainstormed how to use the eco bricks in our designs. First thing we discussed was how to use the eco bricks to actually form a brick shape, that was easy to move and build with. From our brainstorming we came up with six different ideas which is shown in the photo i have attached.

[Olivia Rowland, Personal. 2019](#)

From these designs we then weighed the pros and cons against each design, this helped us all rule out five designs, giving us our chosen design.

The design we have chosen is six eco bottles held in place by recycled cardboard that slots over the eco bricks shown in the photo. We notice that one cardboard slots was not enough to support a two meter structure, we then came up with the idea of slotting three on the six bottle with rectangles strips of card to attach them all together and add additional support.

[Olivia Rowland, Personal 2019](#)



Once we decided on the design of the eco brick structure we had chosen and how we made it structurally stable, we moved on to the design of our homeless shelter. We discussed an easy shape that could be made with the shape of the bricks we designed. We came up with a square, rectangle, pentagon and hexagon. After balancing the ideas we wanted the

[Olivia rowland, personal 2109](#)



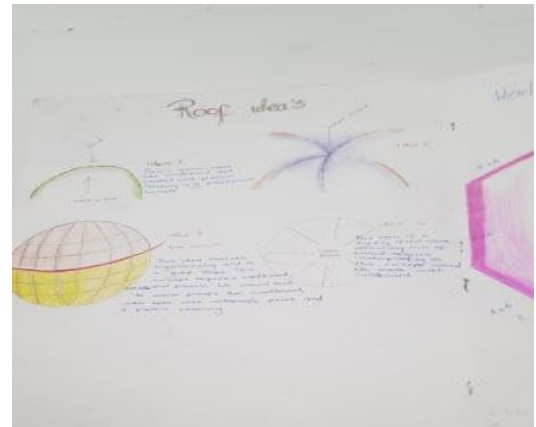
[Olivia Rowland, Personal. 2019](#)



shape to represent an idea of an igloo. That's when we decided that the hexagon was the ideal shape for what we want to achieve.

Then we went on to discuss the roof ideas. We looked at the basic half dome, the triangle and the slanted roof. These ideas we found basic and not giving a message on what we were doing. We wanted to tell a message with the shelter. We decided that being homeless and the

amount of plastic that we were using is a global issue. We wanted to share this message, by using trigonometry to create a global shape. This was difficult and Clare was the one that managed to execute the idea of how to make a globe.



Olivia Rowland, personal 2019.



Olivia Rowland, Personal 2019

Now that we knew what we wanted we made little models scale 1:100. This helped us to present our idea to the museum staff. The model was used so they could physically see the idea that they we came up with, so that they could look at it apart and how it connected and not having them try to imagine it.

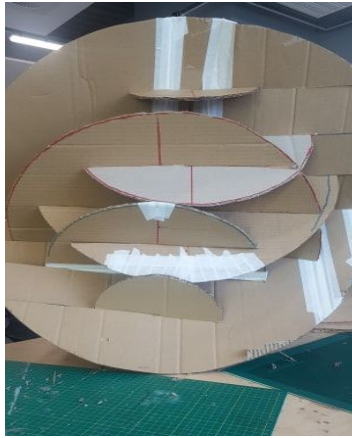
The models were made and we notice we hadn't taken into consideration about the cardboard getting wet from the weather.

So we sat down and looked at ways to recycle material to make it waterproof of using natural substances. We came up with the ideas of beeswax, clay based paint, plastic coverings that could be created of company advertisement banners.

We also had not taken into consideration about the ground level, this would allow water to come in through the bottom and soak in the cardboard. We decided to look at the wooden crates to help lift the shelter off the floor and cover the crate in a plastic sheeting.

Before briefing we sat down and discussed as a group, how the shelter will go together, if there was any concerns, we worked out how much materials we require (e.g 300 eco bottles), we looked at the difficulties we may face going from a scale 1:100 to making it over two meters high and we discussed how we would present it to the client.

We then briefed our client of our ideas, during this brief we discussed how the homeless shelter was put together, the materials we will be using, where the materials are sources from, the issues we ran into and how we would overcome them. We discussed what they would like to see. They asked a few questions about our global structure one being about the globe being painted.



After our briefing only small things from everybody's design was chosen and from our groups design our globe was picked. We knew this wasn't an easy thing to pull off for the design.

As a group we were giving the size of the globe would have to be this was ..... From our sizing required we gave up our wednesday to come in and measure out the circles for the 8 meters and 6 meters we required 2 cut outs. For the 4m and 2m we required 4 circles. This involved a lot of cutting and sometimes includes catching ourselves.

[Olivia Rowland, personal 2019](#)

This needed to be fixed we went back together as a group and spoke to Ian, this is when we were given the idea of plywood. While the plywood was being cut we drew the other circles on a much thicker cardboard and proceeded to cut them out. This drove us crazy because the card was so thick and with a cameraman filming us. We notice we was quick to irritation, we muscled through cutting all these circles taking breaks because it hurt our hands. The relief when we finished cutting it all out. It was now time for the tricky part, assembling it.

[Olivia rowland, personal 2019](#)



We notice when it came to assembling the structure our cardboard was too thick. We once again had to discuss how we would work around this issue. We came up with the idea to make 3 small lines in to card above the slits. Once we pushed the card into the slits, the pressure ripped the card to correct depth for it to fit perfectly. This method required strength and patience. Once assembled the plywood held the weight perfectly and

everything kept the shape, showing a globe.

[Olivia Rowland, personal 2019](#)





This image shows our finished project assembled for the display.

This project helped me prepare for the real world. I gained some knowledge on how to work as a team through communication to help us meet the deadline. I also learnt we will all have to work with people who we do not get along with.

[Olivia Rowland 2019](#)