

My stakeholder is my Mum. She has expressed interest in cats, flowers, and she also enjoys reading. Her favourite colour is green. She has some jewellery, and enjoys wearing it, and has mentioned that she would appreciate some form of pendant. This is an opportunity for me to create something that involves the attributes she has talked about. Based on these attributes, I have decided to make a necklace pendant that features a cat in some way. If possible, I will also try to incorporate the colour green.

Material 1: Paper mâché

- Paper mâché can be used in many different ways to form shapes.
- Potential ways to explore include using a mould, using a wire frame, and turning into a paper clay to shape.

Material 2: Timber

- Timber is very versatile and will be sturdy even in a small form like a pendant for a necklace. It is durable if treated right.
- Potential ways to explore include etched and cut using the laser cutter, carved with chisels, and covered using resin.

Material 3: Resin

- Because it starts as a liquid, it can be shaped very easily. While in liquid form, things can be placed in it that will be displayed once set
- Potential ways to explore include using a mould to pour into shapes, using a laser cutter on set resin, covering other materials with resin

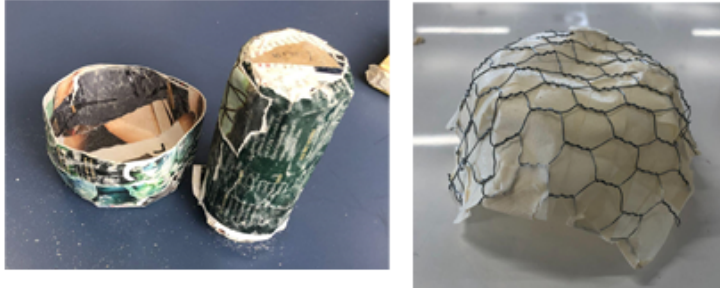
The three main concept designs were just different positions the pendant could have. Here is the feedback for each design:

1. She liked the emotional connection that came with having the cat's actual paw print. She also liked that it was personalised, and it would be a lasting memento after our cat passes away. However, she felt that because it would be realistic it would look messy and unrefined (a true cat paw isn't tidy) and was concerned about the logistics and ethics of how I would be able to get the print in the first place.
2. This design has the potential to get large and chunky due to the size. My mum does not like that type of jewellery and would prefer something more refined. However, she did like the concept of the idea (cat in a heart shape). She also liked the position of the cat itself. Not her overall preferred design.
3. The design of this pendant is reminiscent of a necklace she has had previously, so there is a nostalgic element for her. She also likes how it is just a silhouette and simple compared to the other designs. However, she also said that the tail has the potential to get caught on things because it sticks out so much. This can be easily changed. She also mentioned how it doesn't have a face, which is neither positive nor negative but could get included in future versions.

Material 1: Paper mâché

Process 1: using a mould. I used a jar as a base, covered it with cling wrap and then wrapped pieces of paper dipped in glue around it.

Process 2: Using wire. I combined the paper mâché with wire to mould it into a bowl shape.



Pros: After the materials set, the paper mâché was quite solid and didn't feel like it would rip. It has a unique look due to the paper and can be easily personalised by using different magazines and pieces of paper.

Cons: Considering my outcome is a necklace pendant, I would have to create something quite small. Paper mâché doesn't seem like the best medium for this. If I want to use this material (paper and glue) I will probably have to get a more liquid state and then pour it into a small mould. I need to be able to create something precise, so while this material has some good qualities, it isn't a good match and other explorations are required.

Material 1 comments: My key stakeholder believes that the paper mâché looks flimsy and that it would be difficult to get a nice finish on it. However, she did admit that it would be cost effective and that it would make use of old paper and materials.

Material 2: Clay

Process 1: I shaped the clay in a different form.

Process 2: I combined the clay with chicken wire to give it more structure.



Pros: There weren't many pros for this material in relation to what I want to make.

Cons: To properly utilise clay you need to have the skills to make it look good. Clay is also extremely bulky, especially considering I'm trying to make something small. It could potentially be made into a small pendant if I had the skills to, but I don't, so this material won't work for me. Clay can also break fairly easily once it's dry, which isn't good for my pendant as it needs to be something that can be worn all day without issue.

Material 2 comments: My key stakeholder said that the clay looked too bulky to make a small and refined pendant like the type she wants. I agree with this.

Material 3: Wood

Process 1: Laser cutting. I created a file online and then exported it to the laser cutter.

Process 2: I used the laser to etch a pattern onto the cut out shape.



Pros: Once I figured out how to use the computer and program, it was very easy to get carved. It is also very easy to etch patterns onto the product once the files have been converted.

Cons: You have to be careful that the edges don't burn. The burnt edges meant that the legs and tail of the cat turned completely dark, which just made the entire thing look burnt. If the outcome is going to be small, I need to be careful that the tail and legs aren't too thin otherwise they will snap off. The wood is also a lot more fragile than other materials I have tried and likely won't be as durable. If I want to use this material, I need to find a way to solve the issue of its fragility.

Material 3 comments: My key stakeholder said that this material would be easy to wear because it's nice and light. However, she did say that it needs a varnish or lacquer finish because it looks a bit plain by itself. She liked the etching and the design.

Material 4: Acrylic

I did the same processes I did with the wood to the acrylic.



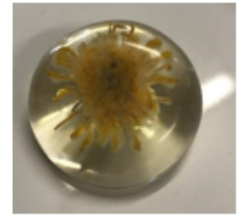
Pros: Very solid and durable. The thinner parts of the design aren't likely to break off. This makes it good for a piece of jewellery, which would be worn for a long period of time. I will likely use either this or wood for my final material.

Cons: The etching is barely noticeable on this colour of acrylic. If I wanted to incorporate that method into the final design, I would have to experiment with making it deeper or adding something on top to make it more prominent. Ideally, if I were to use this material and wanted to have the pattern as well, I would have to make sure the pattern is visible enough on the colour of acrylic my stakeholder decides on. Because my stakeholder said that she liked the pattern design, it is necessary that I use a colour of acrylic that makes it visible for my final outcome.

Material 4 comments: My key stakeholder liked this material because of the finish on the product. She also mentioned that it would be light as well and not annoying to wear. However, she did say that she would like to see the etching on it made more prominent and to look into the possibility of combining colours.

Material 5: Resin

Process 1: I combined a two part resin with flowers in a mould.



Pros: The resin set extremely solid. It is very sturdy and durable and did not shatter or scratch when I dropped it on the ground. It also dried extremely clear. The properties of this material make it perfect for what I am creating. This exploration was extremely beneficial towards the creation of my final pendant, and I definitely plan to use it. Using resin has also opened up the possibility of adding more to my pendant such as glitter or backgrounds. This can be done by placing it in the resin while it's still wet.

Cons: Care needs to be taken to ensure that the resin does not become cloudy. I also had difficulty stopping the flowers from floating to the surface. I also had to make sure that the mould was completely clean before I poured the resin, otherwise pieces of dust and other things could get trapped and ruin the final result.

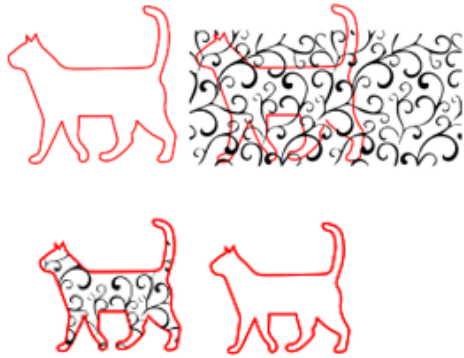
Material 3 comments: My key stakeholder saw the things I created for exploration and said that she quite liked it. She asked if one of the acrylic cats I laser cut into a small disk of resin because it is transparent and strong and then use that as my pendant. This is a great idea, and I will try to combine materials.

Refinement

To create my pendant, I have decided to combine the explorations I did for acrylic and resin. I can create a cat out of acrylic in a colour chosen by my stakeholder which can then be set in a disk of resin to create a pendant. One of the main pieces of feedback I got on the wood and acrylic explorations was that she didn't really like the finish on the wood and acrylic, so by combining it with resin I can change what it looks like. Resin is also extremely solid, which solved the concerns both me and my stakeholder had regarding the fragility of the cat.

Wider stakeholder feedback: My wider stakeholder feedback (teacher) agreed that I should do different combination with resin such as wood. This is easily doable and would also be a good exploration. As I learnt from laser cutting wood, the pattern shows up a lot more than acrylic, so the design would look clearer. One of the issues with wood was that the tail was very flimsy, so setting it in resin would solve that issue. I have explored this process in the production of my outcome.

More investigations. I started by creating my file for the laser cutter. I edited this file multiple times. The result of my first file was too small, which meant I had to go back and increase the size while keeping the pattern the same. Then I struggled to get the pattern matching the outline of the cat to avoid wasting any material but managed to get it sorted. I then cut out of different materials. When I went to the laser cutter, I only planned to use green acrylic, as that was one of the colour options my stakeholder had chosen. However, I got feedback from my wider stakeholder (teacher) that I should try using wood and clear acrylic. They thought the clear acrylic would make interesting dimensions when set in resin, and the wood would be an interesting exploration.



I then cut some cats using the laser cut. When I was setting them in resin, I saw other materials I could involve such as the gold flakes and paint chips. These materials added more depth to the resin and made the cat stand out more. The clear cats couldn't really be seen unless you were looking really closely, even with the gold flakes behind it, so it wasn't something I used again. I showed these to my key stakeholder, who said that she liked the green cat with the paint chips, but though it looked a little busy. She suggested I try the green with other backgrounds. She also said that she really liked the gold flakes but would prefer it with a different colour cat.

Using the things I learnt from the previous exploration and trial, I then made another six cats. I did green again, as this is what my stakeholder suggested, however I used a different shade of green acrylic that's slightly more transparent. I made this change because I thought that this shade of green was slightly transparent and added more dimension without making it see-through. I also chose to try black acrylic, as well as wood again. When I explored wood earlier, I got feedback from my key stakeholder saying that she didn't like the finish on it. By combining it with resin, I am changing the finish on it while making the original cat sturdier. I trialled adding the pattern to all of the cats because my stakeholder liked it and I think it adds character.



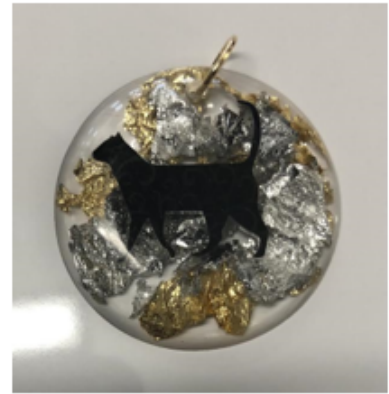
Then my focus was on trying the different types of things I could add to the background. I did gold flakes again, because my stakeholder responded positively to it, as well as silver flakes and paint chips using different colours of cat.



My key stakeholder said that the paint chips looked too busy last time, I feel like one of the problems was that the green clashed with the colour of the paint chips.

Final outcomes

After the resin set, I took them out of the moulds and drilled a hole through them. I then added a ring through the hole so that a chain could be tied. I chose the top three and showed them to my stakeholder. She chose her favourite and that then became my final taonga.



Final Evaluation

My stakeholder identified that she like both cats and jewellery, which gave me an opportunity to create a piece of jewellery. My final outcome incorporates both of these elements effectively, as the pendant has a green cat as the focus (although it might not look fully green due to the lighting of the photo).

The silver flakes in the background were not part of the original specifications, however my stakeholder liked them and appreciates the addition of it.

A way for this outcome to be improved would be to use a different circle mould for the resin. The one used was the only one available and it has a somewhat steep curve on the edges. This isn't necessarily a bad thing; however it was something I had to be cautious of when making the pendant and meant it was more 3-dimensional than originally intended.

