

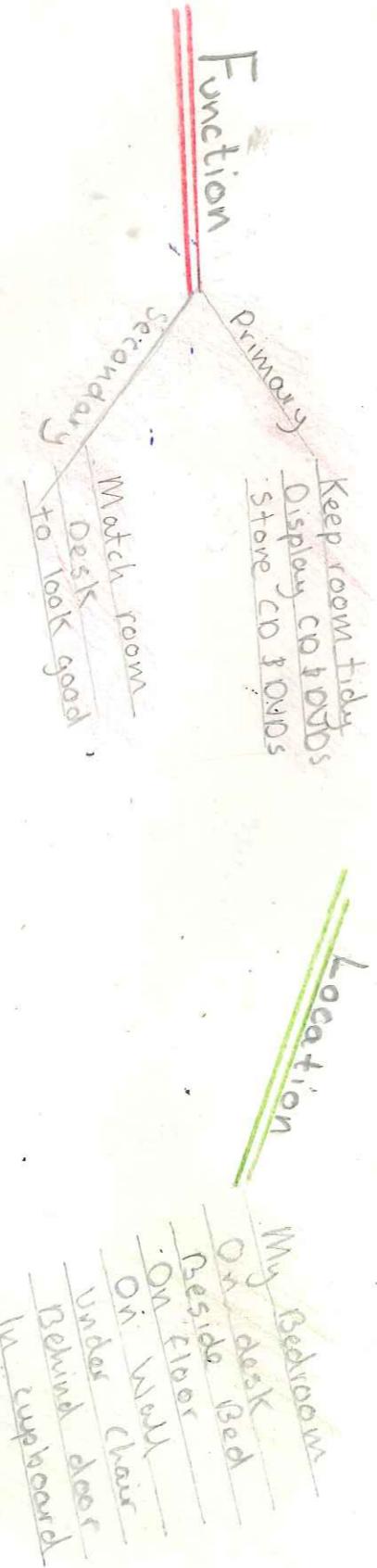
PROBLEM

I am going to design and manufacture my bedroom in my crowded bedroom. My to much will go lying materials available be craftsmanship to a my are must model which model best of my aesthetically. My to simple but costumers. My it is to selection of colours big as wide contrasting be must be can't it go going on my bedroom. It can't desk.

REVIEWED

SD

and trinket organiser



Storage

Drawers
Boxes
Rack
Cabinet
Shelf

The Mess

Coins

Tower
Bracelet
Chain
Watch
Ring
Mild steel rod

Jewellery

Metal
Al

Wood

Pine / Mahogany

MDF / plywood

Aesthetic

Colours
Modern
Traditional
Jazzy
Contast
Harmony
Proportion
Elegance
Symmetry
Balanced

Balanced

Shapes
Rectangle
Ellipse
Triangle
Circle
Square

Materials

Plastic
Acrylic
Styrene
Wood

Metal

Al
Mild steel

Wood

Pine / Mahogany

MDF / plywood

Finish

Paint
Varnish
Waxed

Colours

Blue
Red
Green
Natural

No scuff

Natural

Waxed

Users and economics

Access
Display
Safety
Position

Sister
Mum
dad
Friends

Sharp pencils
Pencils
Stapling
Stitching

Specification

Actual Specification

Function

From the analysis I have wrote, I have chosen the main points which are to store DVD's and CD's and to match my room.

Material

My model shall be made with mostly natural wood as I like the grain of the wood to be shown it shall be pine and MDF.

Finish

My model shall be a contrast of red and natural wood as I like when the natural would is varnished.

Environment

My model shall be free standing on my desk it shall be a contrast of red and natural.

SAFETY

My model must be as safe as I can make it with no splinters or sharp edges.



This model is good as I like the natural wood in it is also very modern. This model is also good because it unusual and looks very light.



I like this model as it is very modern but I am not sure if I like the plastic as I prefer wood. This model looks nice and light and small.



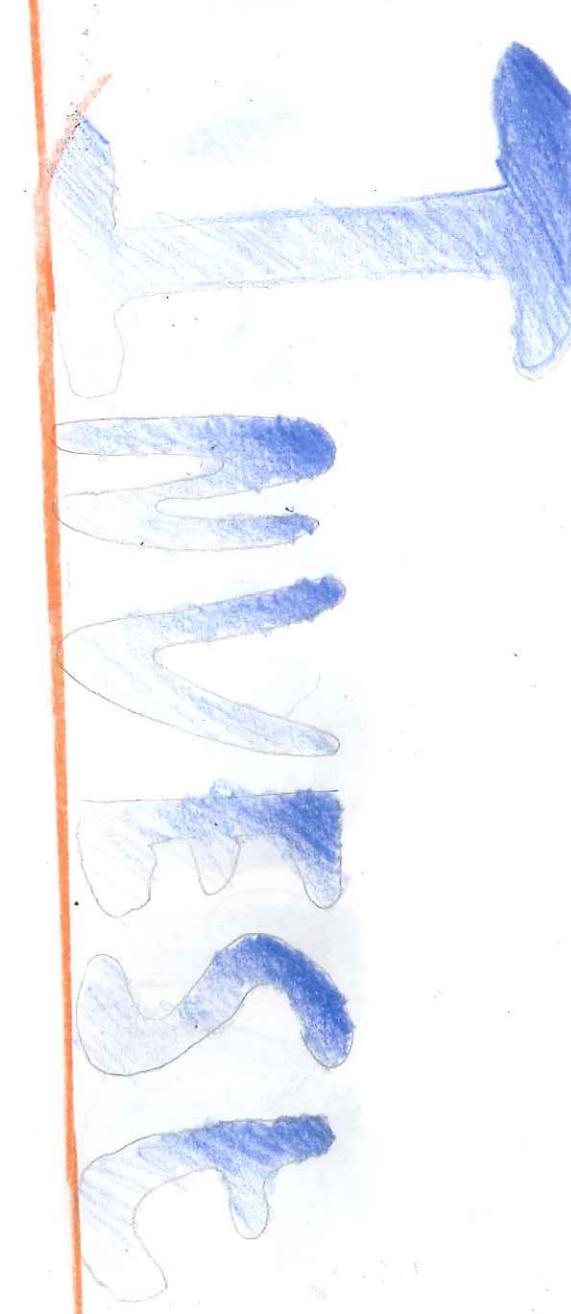
This model is really unusual but very effective. I like the finish in this model as it is very shiny. The balance is also good.

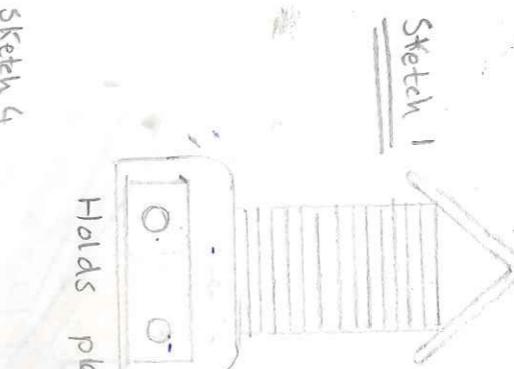
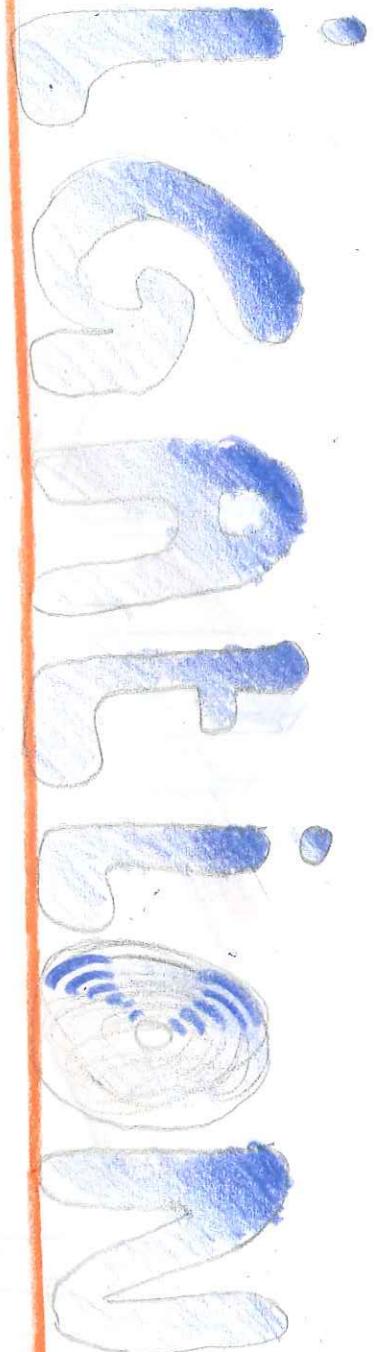


This model is very plain but also very effective. I like the organiser box. It could burst of colours as it looks very light. It could also hold enough CDs for me.

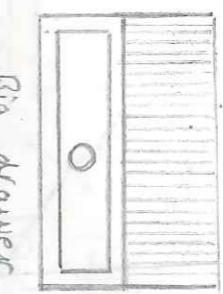
I really like this model because of the storage place and the little organiser box. It could also hold enough CDs but this model looks very very heavy.

I like this model as it is natural wood but it look quite heavy and I also like the stand. It could also hold plenty of CDs.

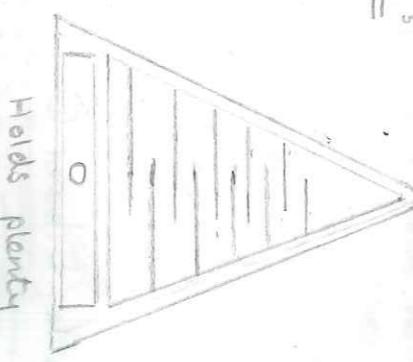




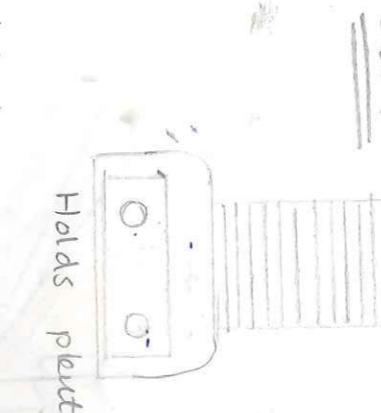
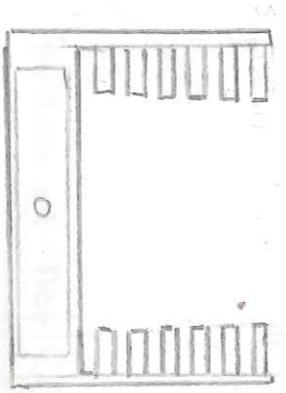
Sketch 2



Sketch 3



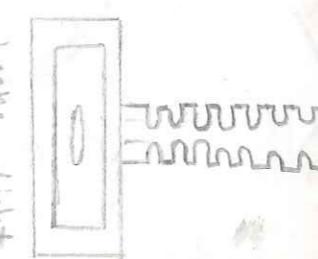
Sketch 4



Could turn or
stationary.

Holds plenty

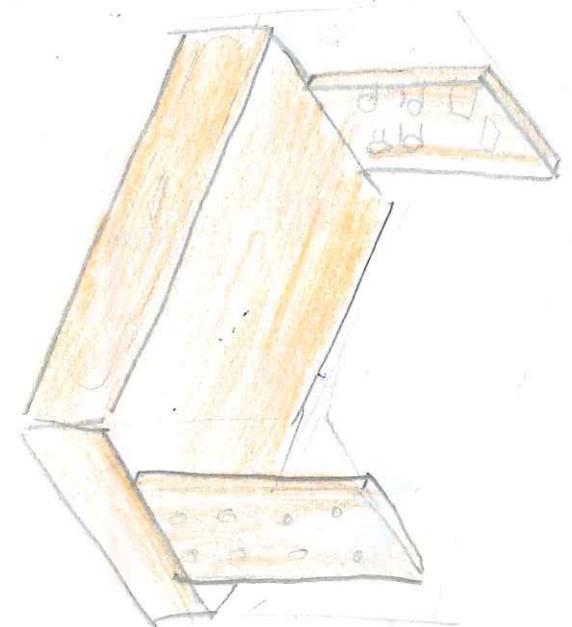
Sketch 6



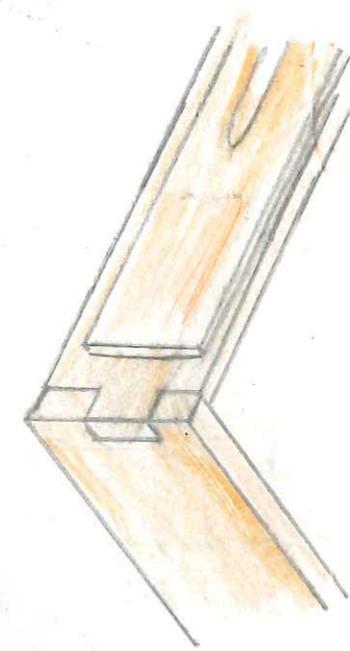
Looks light

points

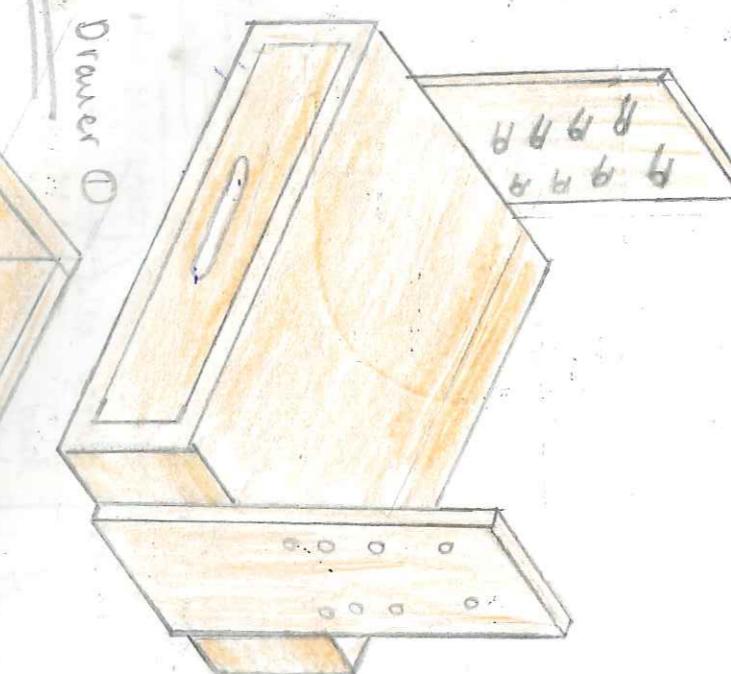
View ①



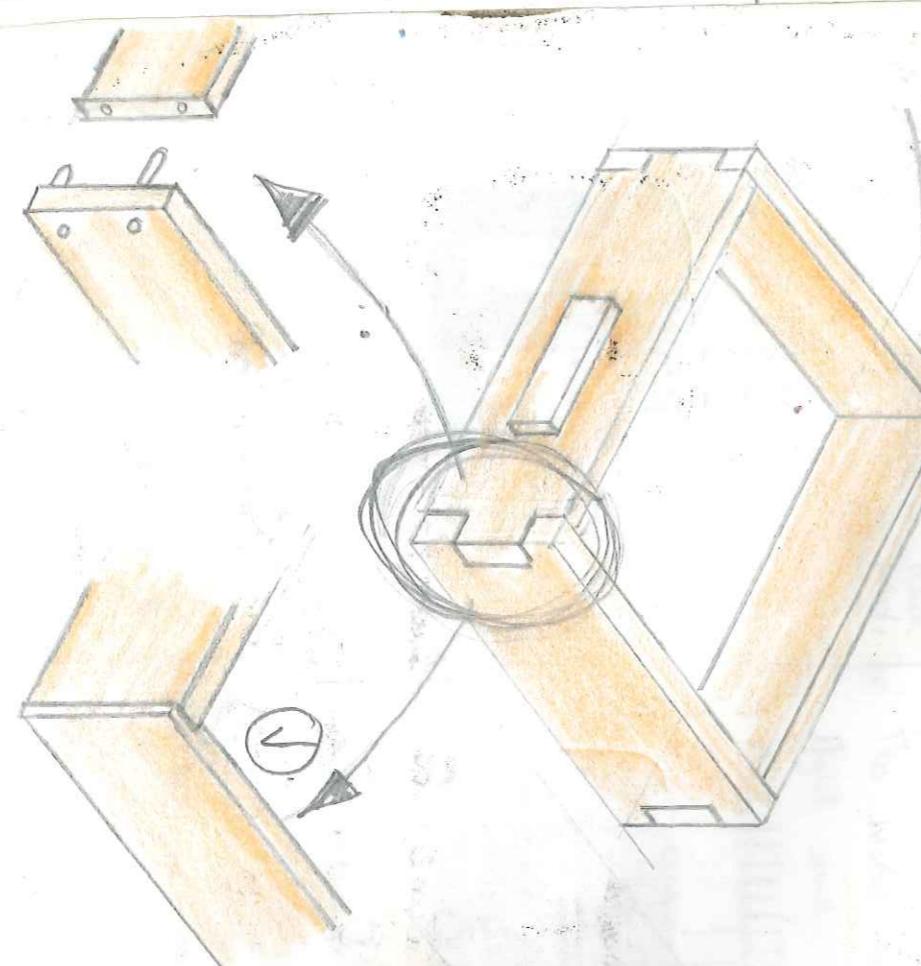
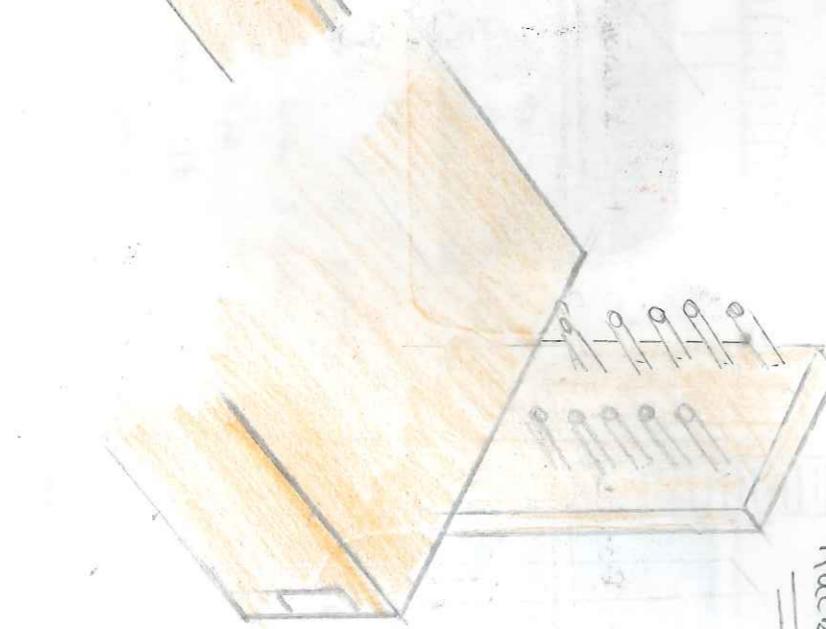
outside Joint ①



Inside Drawer ①

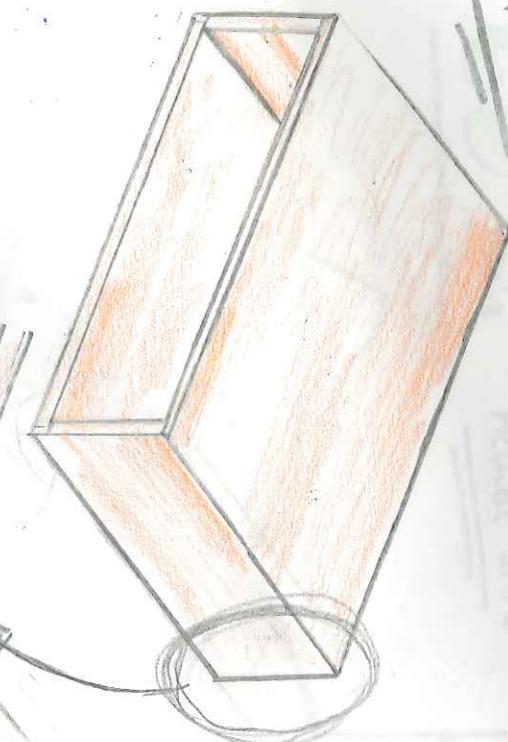


Rack view ①

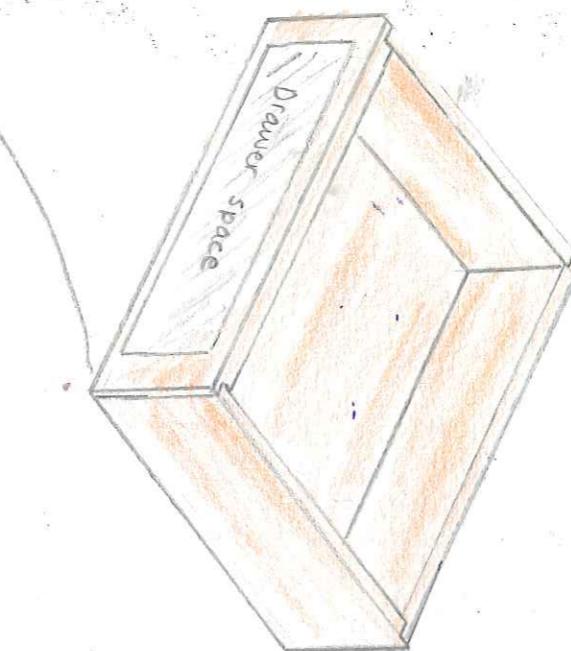


Box view ①

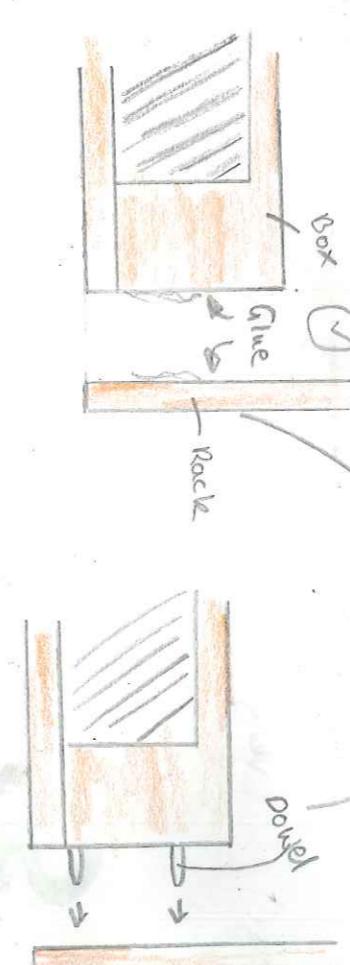
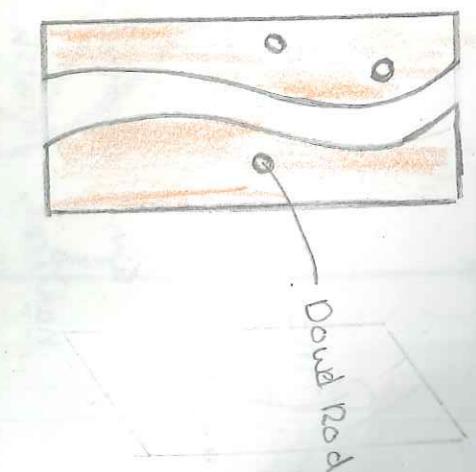
Actual size



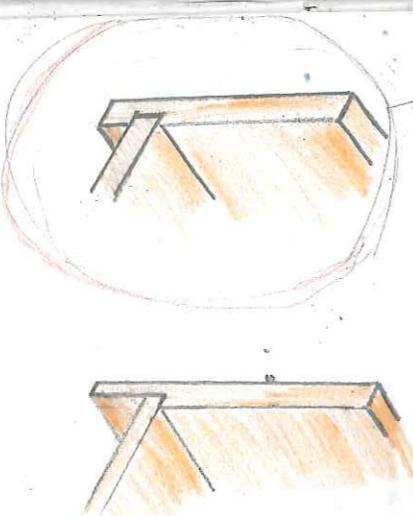
Box View ②



Rack Design ①



Bottom of Box ①



Materials

- Pine for outside box
- Dowled Rod for CD rack
- Ply wood for Bottom of Drawer

Materials

Pine

I am choosing to use pine because I like the natural finish and it has strength and also it is easy to work with as its soft.

Ply

I have chosen to use ply for the drawer as it is strong and very cheap. It is also very light and easy to work with.

Sizes

Outside

Pine = 300mm x 120mm x 12mm
Pine = 200mm x 120mm x 12mm
Pine = 200mm x 120mm x 12mm
~~X~~ Ply = 300mm x 120mm x 12mm
Pine = 300mm x 200mm x 12mm

Inside

Pine = 296mm x 96mm x 12mm
Pine = 246mm x 96mm x 12mm
Pine = 196mm x 96mm x 12mm
Pine = 196mm x 96mm x 12mm
Ply = 296mm x 96mm x 12mm

CD Rack

Pine = 300mm x 150mm x 12mm
Pine = 300mm x 150mm x 12mm
Dowel = 320mm x 10mm
Dowel = 320mm x 10mm
Dowel = 320mm x 10mm

60

rack

Actual size

CO

(Actual size)

110mm

75mm

60mm

25mm

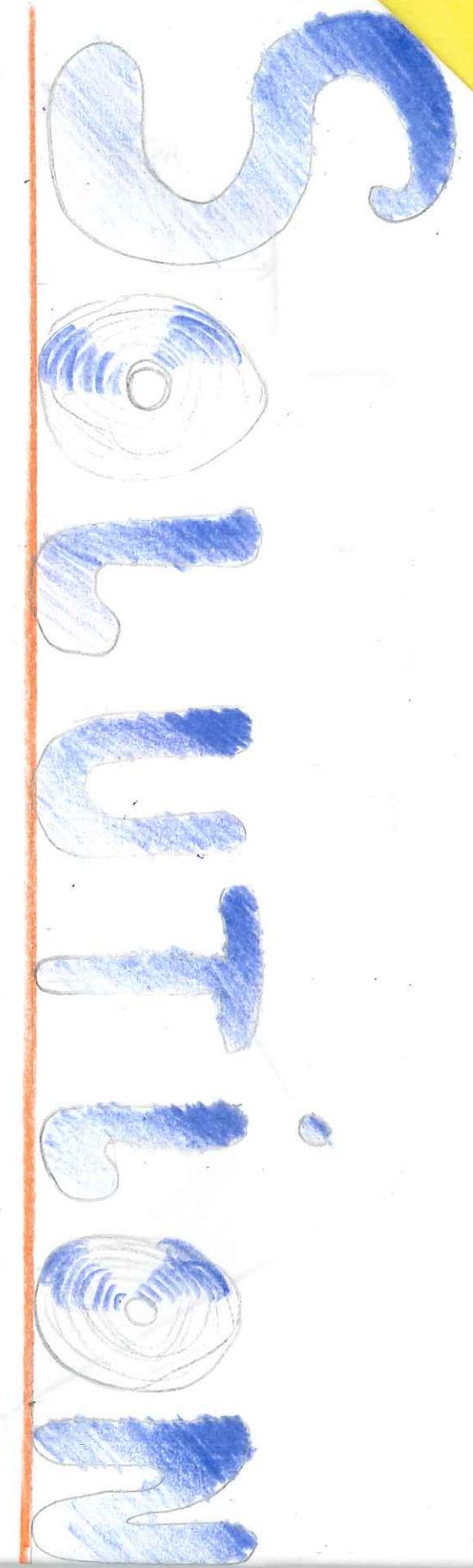
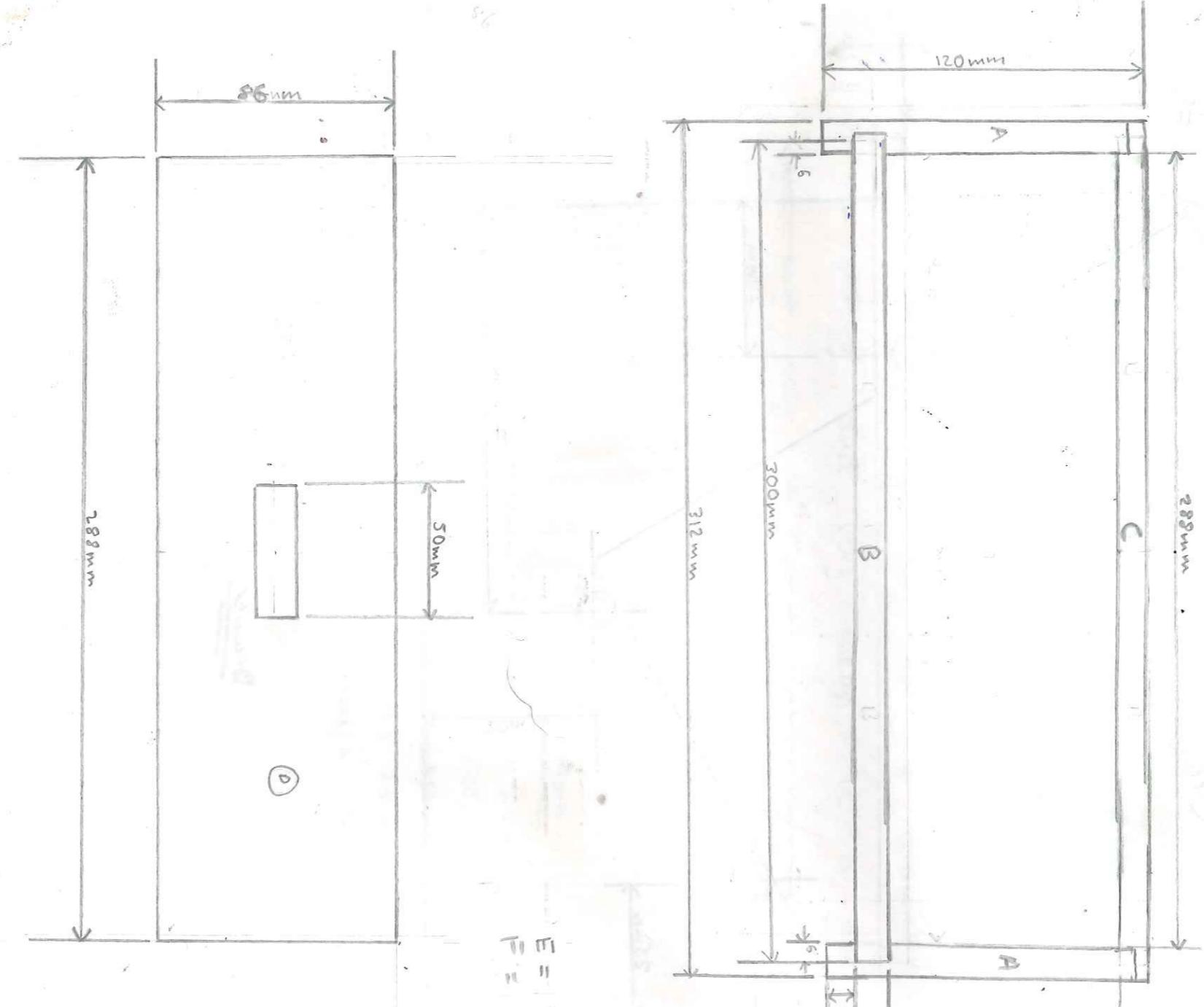
70mm

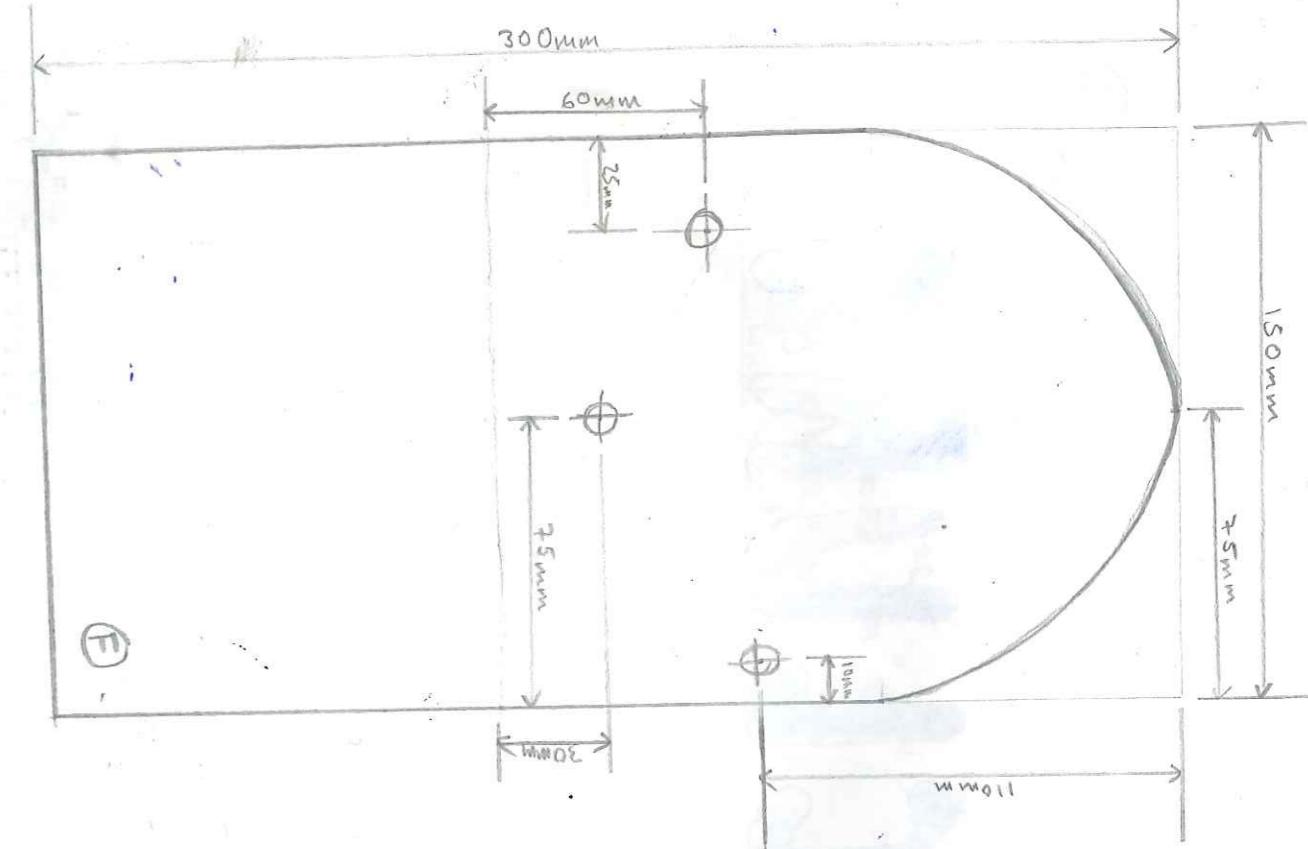
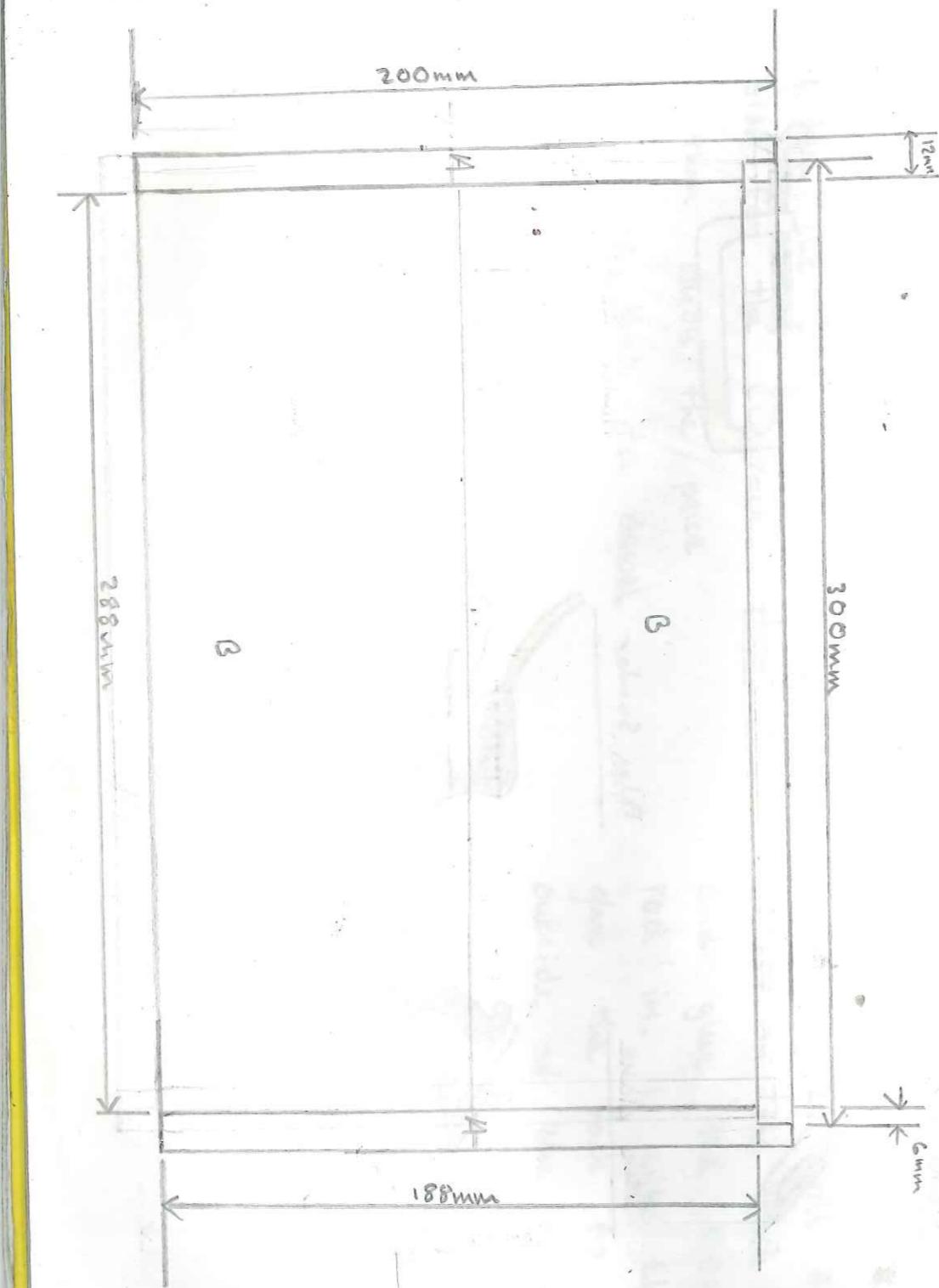
75mm

20mm

Drawer

Scale 1:2





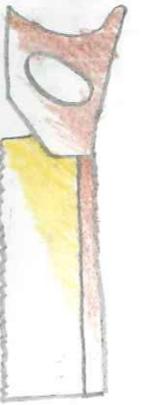
Find cutting list

- | | | |
|---|-------------------------------------|------|
| A | $114 \times 200 \times 12 \times 2$ | Pine |
| B | $288 \times 100 \times 12 \times 2$ | Pine |
| C | $300 \times 100 \times 12 \times 2$ | Pine |
| D | $288 \times 86 \times 12 \times 2$ | Pine |
| E | $188 \times 84 \times 12 \times 2$ | Pine |
| F | $288 \times 84 \times 12 \times 2$ | Pine |
| G | | |

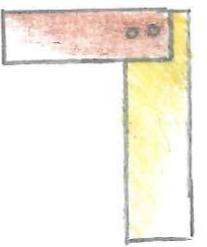
CD RACK PICTURE

In the process of making my CD rack / Drawer
these are the tools I used;

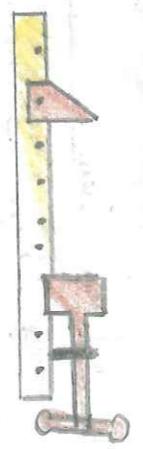
Tennov saw



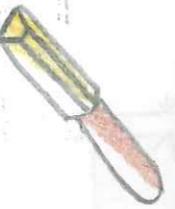
Try Square



Sash Clamps



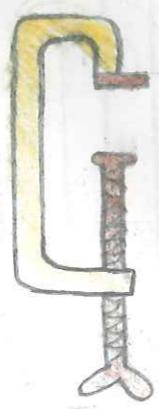
Bevel-edge chisel



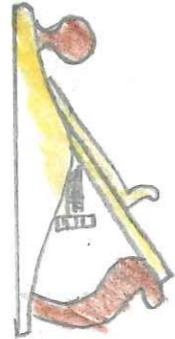
Marking Gauge



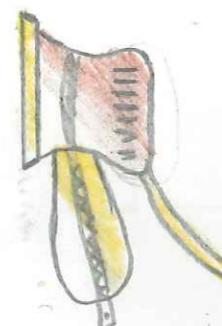
The C clamp



Jack plane



Palm Sander



Hand Router



Steps of making model

① Mark out all the sizes on my wood. I would then make all my rebate joints and mark what wood is waste.

② I then would start on the cabinet so if the drawer was too small it would be easy to fix. I put the cabinet together by wood glue and the Sack clamp.

③ I will start on my rebate joints slowly chiseling out my waste wood and then clean it out with the hand sander.

④ Once the cabinet was done I would finish off the rebates on my drawer and then tidy them up using the hand router.

⑤ When tidied the rebates up I then used the Sack clamp to glue my drawer. I will then sand down the drawer to perfect fit.

⑥ I then cut my dowel to size for the CD rack.

I then curve the piece of wood that the drawer is going to go.

⑦ I will then drill 6mm holes on the rack and glue the Dowel rod in. I will then glue the rack to the outside of the cabinet.

⑧ I will then varnish my wood and then sand down to a nice finish.

EVALUATION

Function

The Function of my model was to hold CD's and to keep my room tidy. My model was able to do these things and there is a difference on my desk already. It also had to match my room and it does with the red handle.

Aesthetics

The Aesthetics of my model was very good and I am happy with it. My model looks modern what I wanted and it also contrasts with my bedroom. I wanted my model to be balanced and it was.

Material

The material of my wood was pine and looks well but if I had to do this again I would change the material to something harder like mahogany.

Finish

The finish of my model was varnish and it looks good on the material of pine.

The mess

On my desk I had CD's pencils rubbers and scissors now all of this is stored in my new modern cabinet / drawer.

Location

The location of my cabinet was to be on my desk. I made the sizes correct and it fits well. I also contrasts well with the colour of its locations.

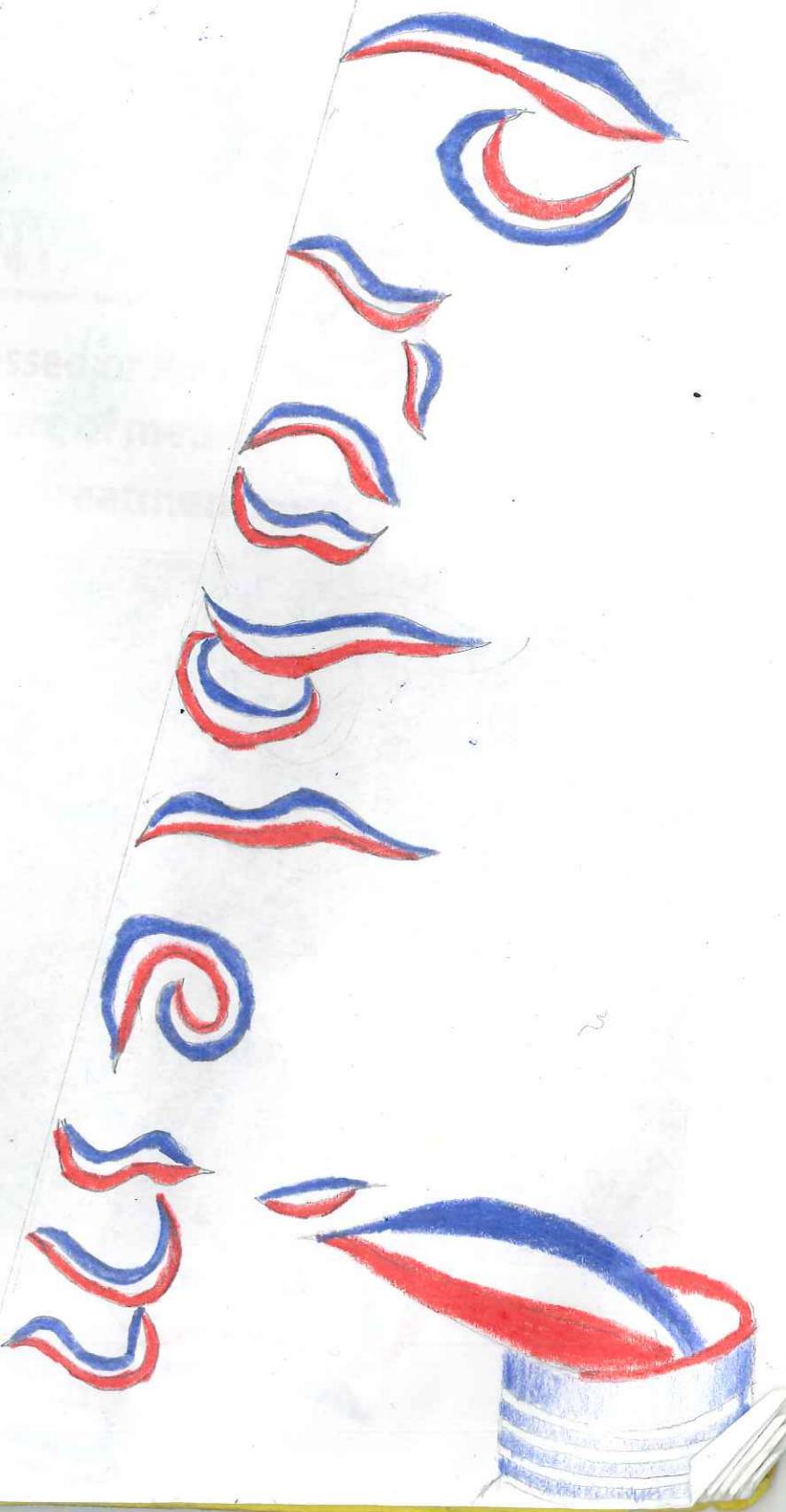
Storage

The model had to store somethings which would be lying on a desk like pencils, pens, phones and remotes all these items fit well.

Economics

My model had to be safe as if have a little sister so I sanded the edges which looks well and is safe.

I am going to design and manufacture a cup. My model will be a toothbrush holder because currently my manufacturer is available to my school technical department that work well with my bathroom. My model must be finished and simple and constructed to my craftsmanship. It will be aesthetically pleasing to the customers. My model will contrast with my bathroom.



Spaghetti rack

Function

My model and holder must be waterproof and can hold four toothbrushes. It will have a mirror and will fit on the wall.

Material

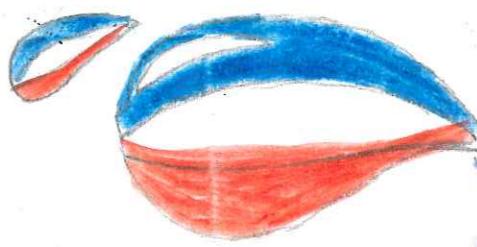
My model will be made of acrylic plastic because it is easy to work with and hard to break when working with.

Safety

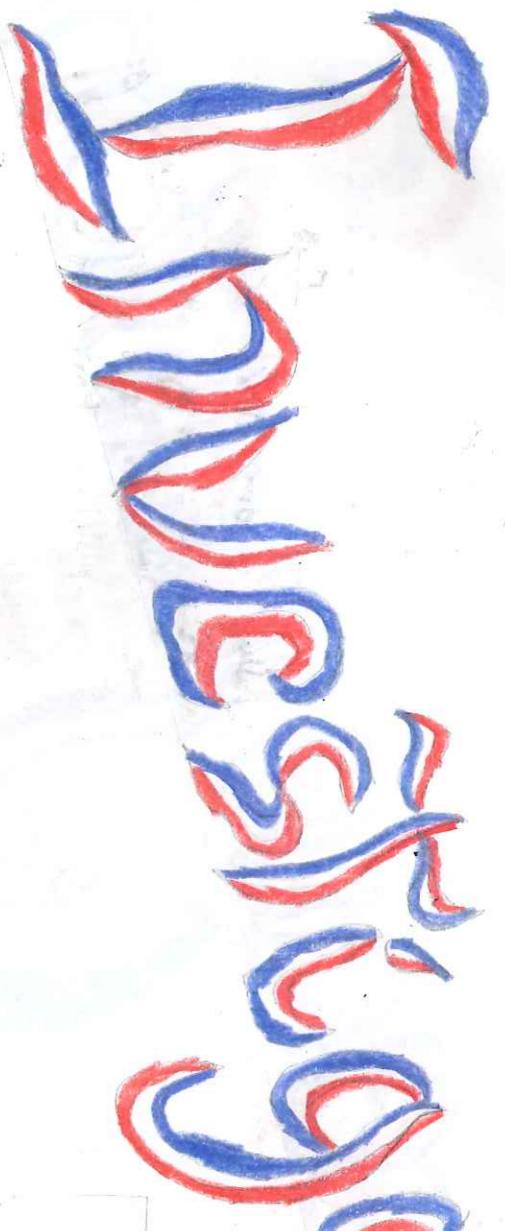
My model must be safe as I have a lot of young children about my house. It shall have no sharp edges and be sturdy.

Environment

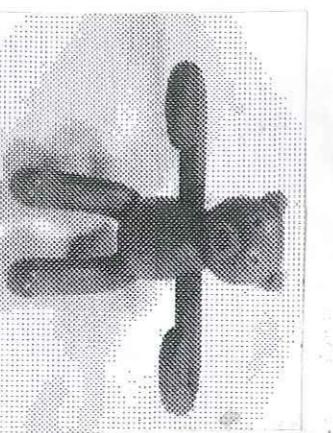
This model bathroom will go on my waterproof wall and must be wet as its going place.



Design



This model is very effective as it fits on to the wall what I'm looking for. It is also modern and can hold a cup. It is small and fits four toothbrushes.

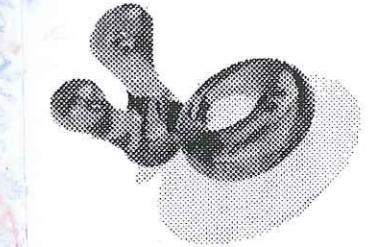
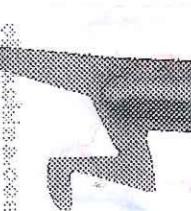
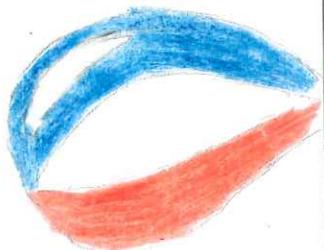
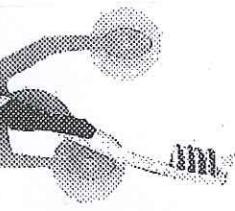


This model is really complicated and would be very hard to make. The down side to this is how it is a bear which would not really go with a bathroom.



I like this model as it is simple and also fits on to the wall. I also like this model as it is small and holds four toothbrushes what I'm wanting.

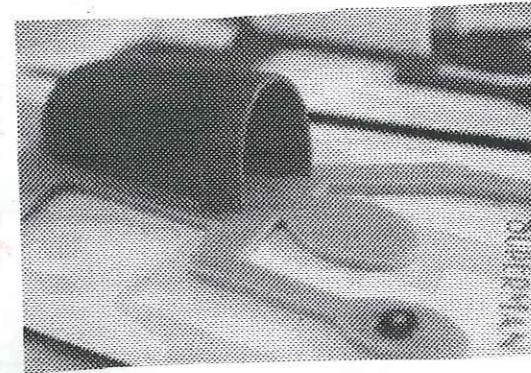
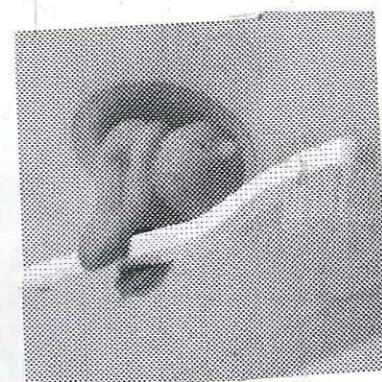
This model is really great model as it is very modern. The plastic swirls look very good and it is also small and could hold a few toothbrushes.



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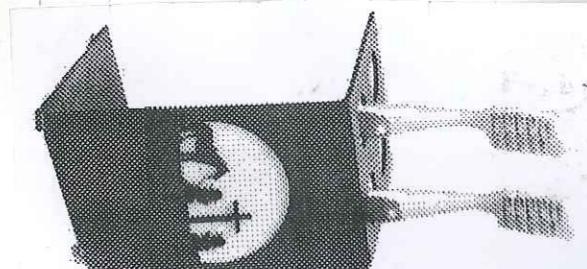
I really like this model as it is unique and fits on the wall. The down side to this is that it will only hold one toothbrush. This model will fit in my bathroom and it is also not to hard to make.



This idea is really unique but effective. The model is very small and can fit on the wall what I'm looking for. This model however will be really hard to make as its very small.

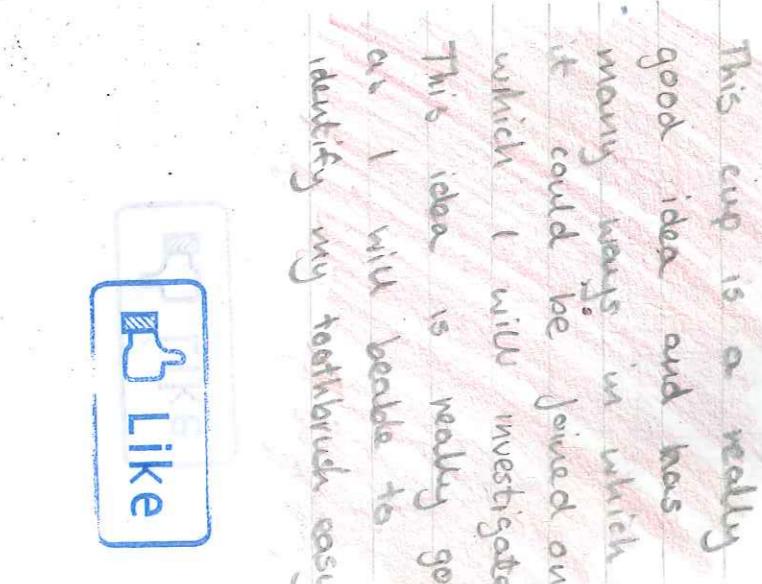
This idea is really effective but is not the material what I'm using. The mode can fit on the wall and is really small. I like the idea how the toothbrush clicks in.

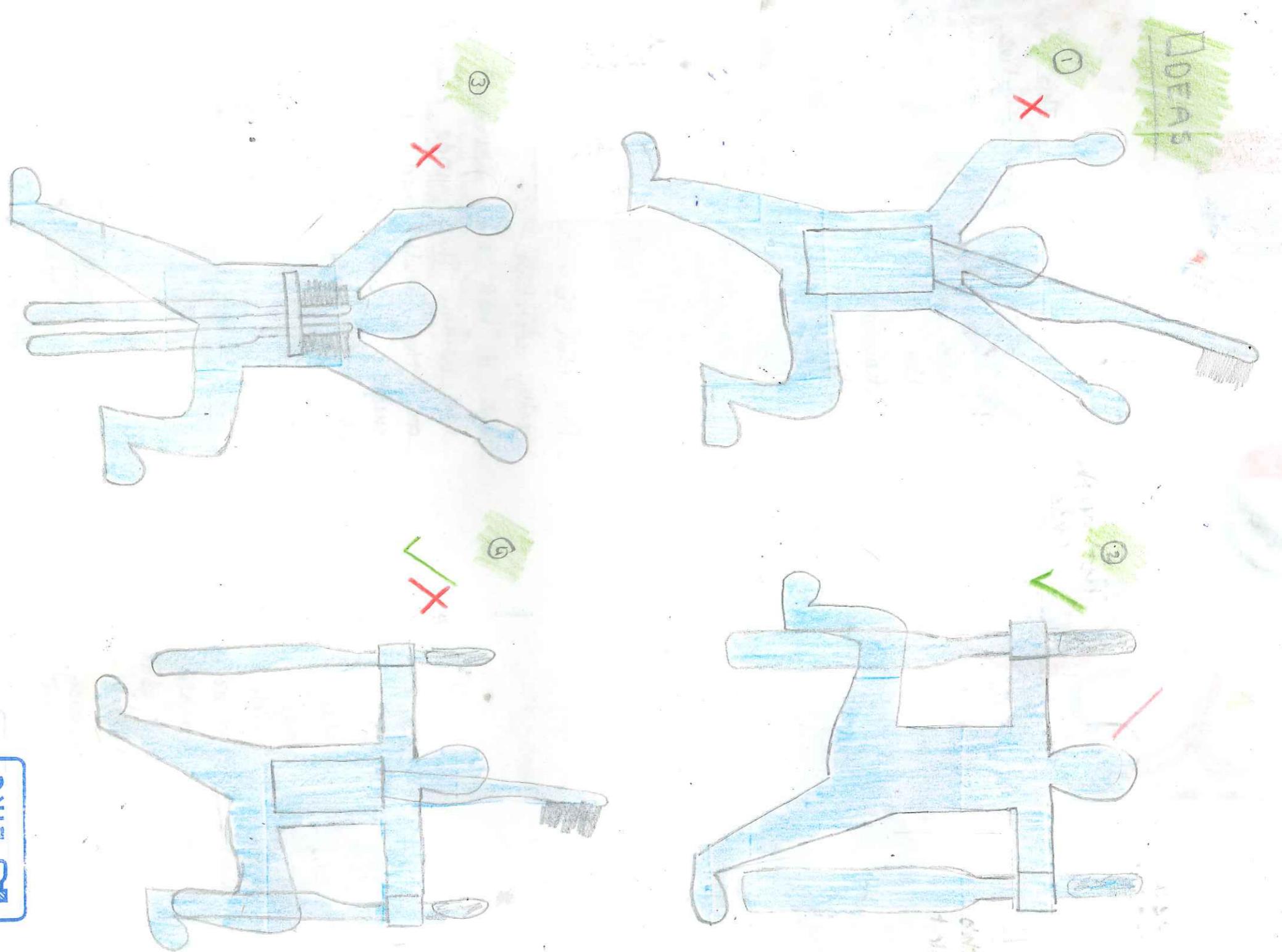
This finished piece is very effective but a bit big for our toothbrushes. The idea is very plain and is very easy to manufacture.



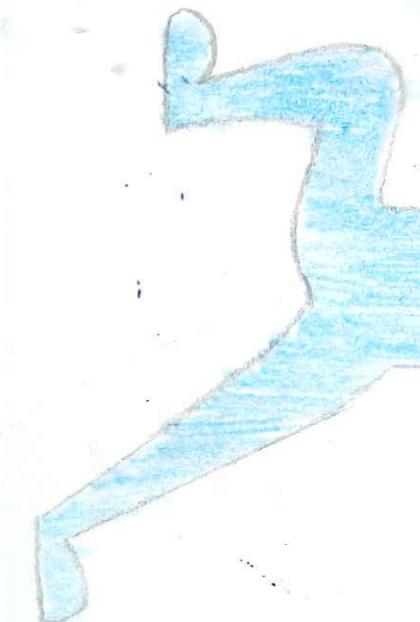
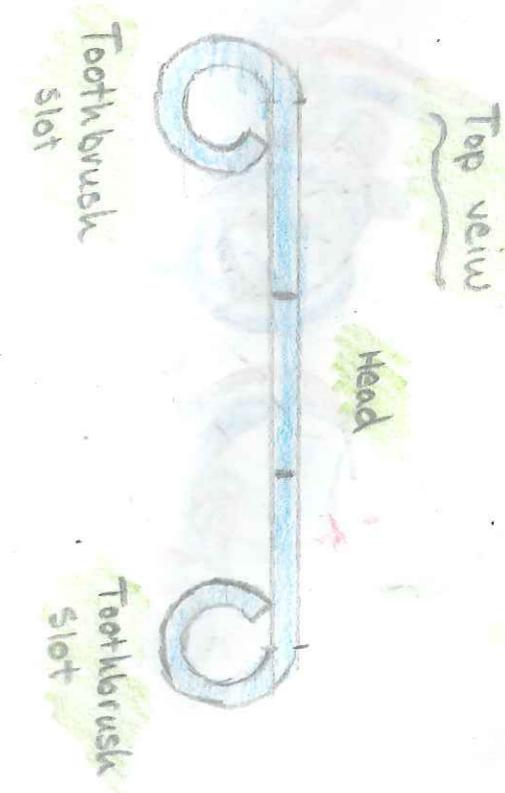
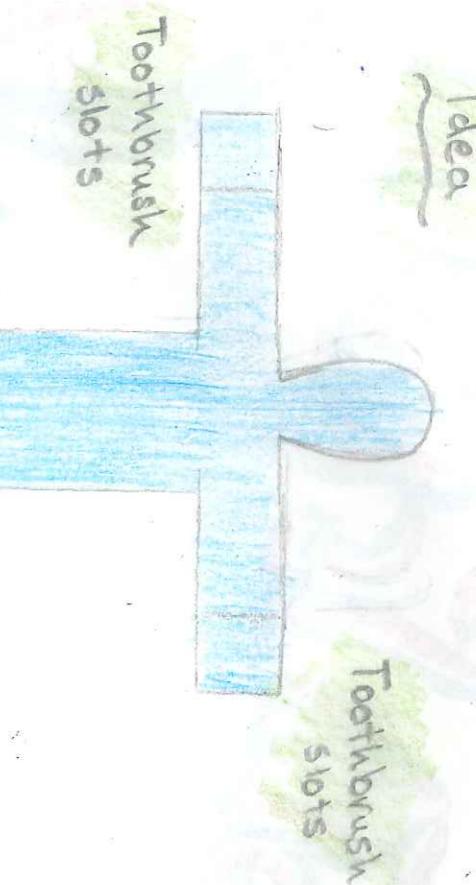
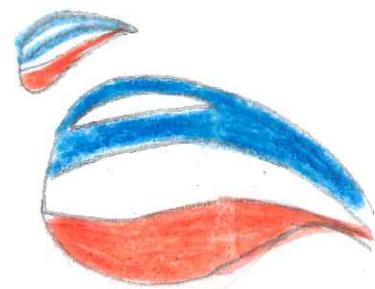
Like

This cup is a really good idea and has many ways in which it could be joined on which I will investigate. This idea is really good and I will be able to identify my toothbrush easy.





Idea developed further

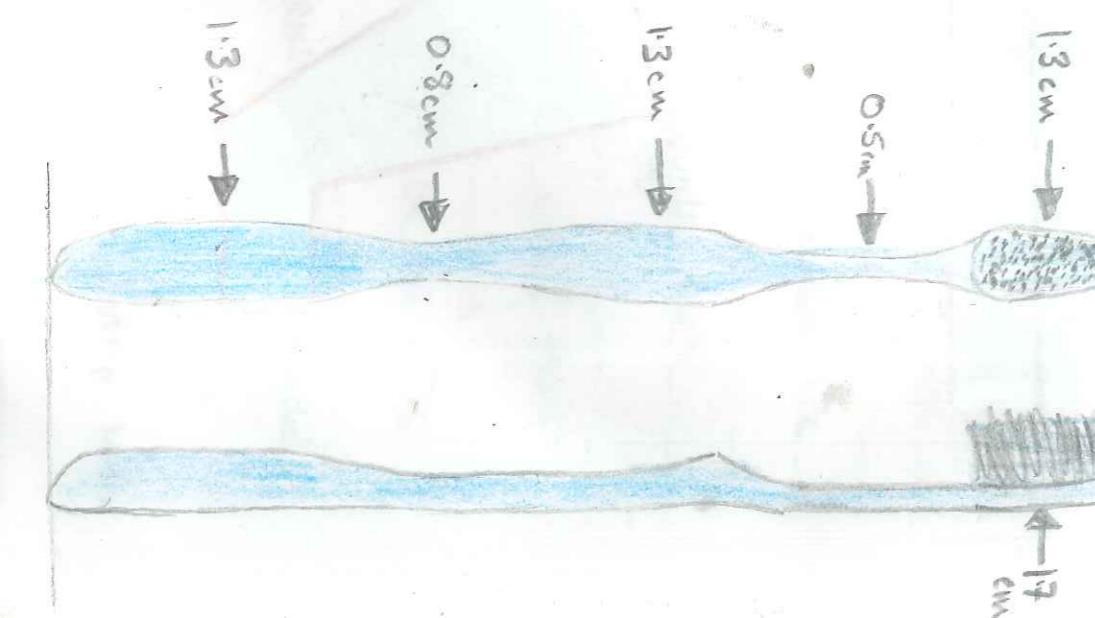


My toothbrush

1.3 cm →

0.5 m →

1.4 cm →

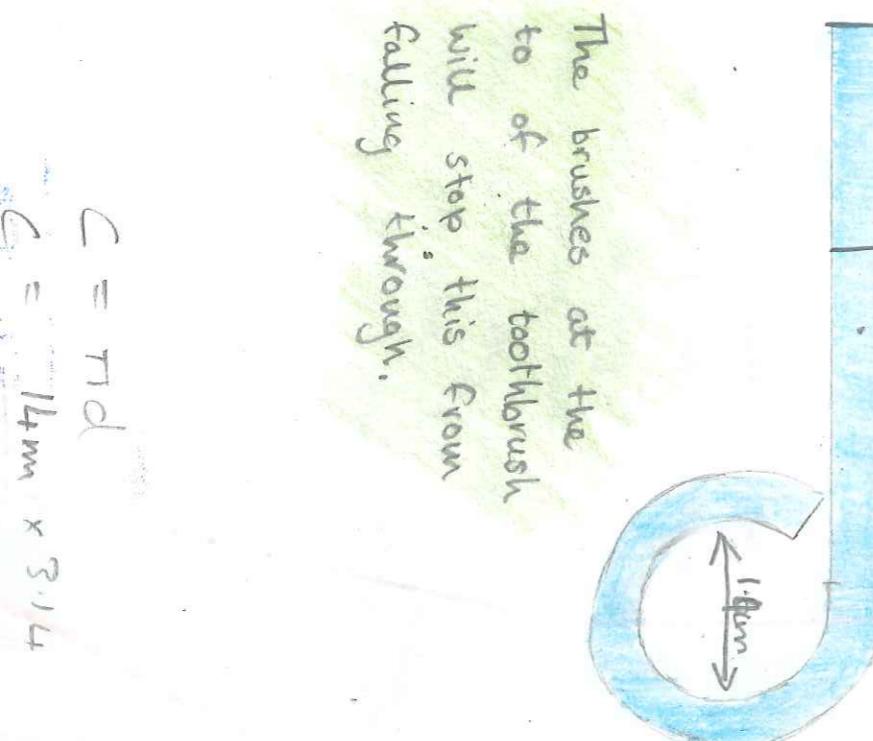


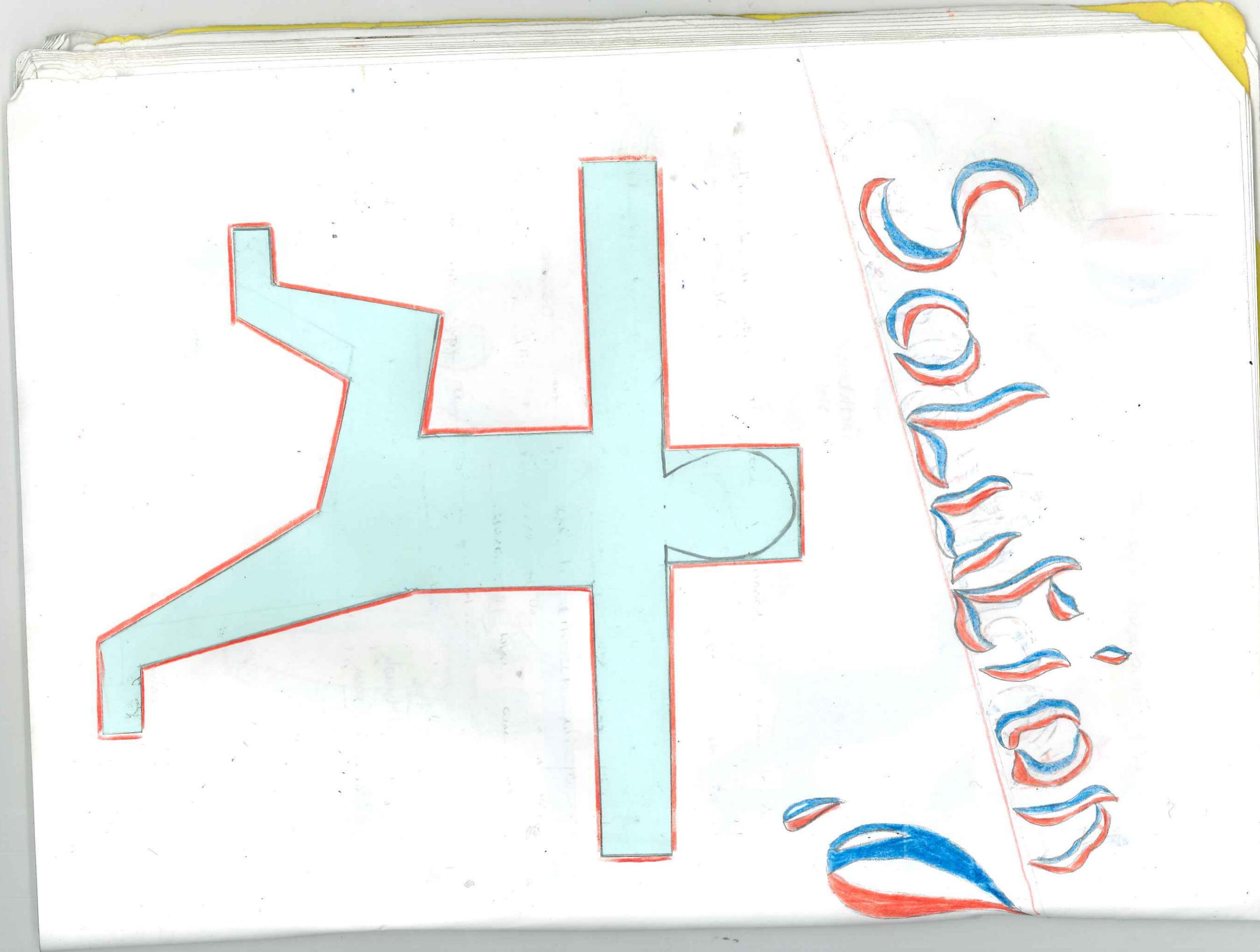
The brushes at the top of the toothbrush will stop this from falling through.

$$C = \pi d$$

$$C = 14\text{ mm} \times 3.14$$

$$C \approx 44\text{ mm}$$





Steps



The first step I took in making my model was to put tape over my design. Then I worked out my design to the bigger size.

I then started to cut out my bigger bits of plastic I did not need making my piece of plastic easier to work with.

I will use a coping saw to cut about 2mm of my lines

and will the me more accurate.

Then I will cross file down to my lines making sure I am accurate making my line straight and even.

The making sure I have done this I will the draw file making my lines even smoother.

After this I use wet and dry sand paper to make all the scratches on my model invisible.

After making sure all my scratches are away I will then start polish my edges.

When polishing I use brasso then I use a cloth to wipe the stuff I don't need away.

Finally I will drill two holes in the centre of my model.

The tools I used making my model are;

steel rule



Cutting instruments

coping saw



file



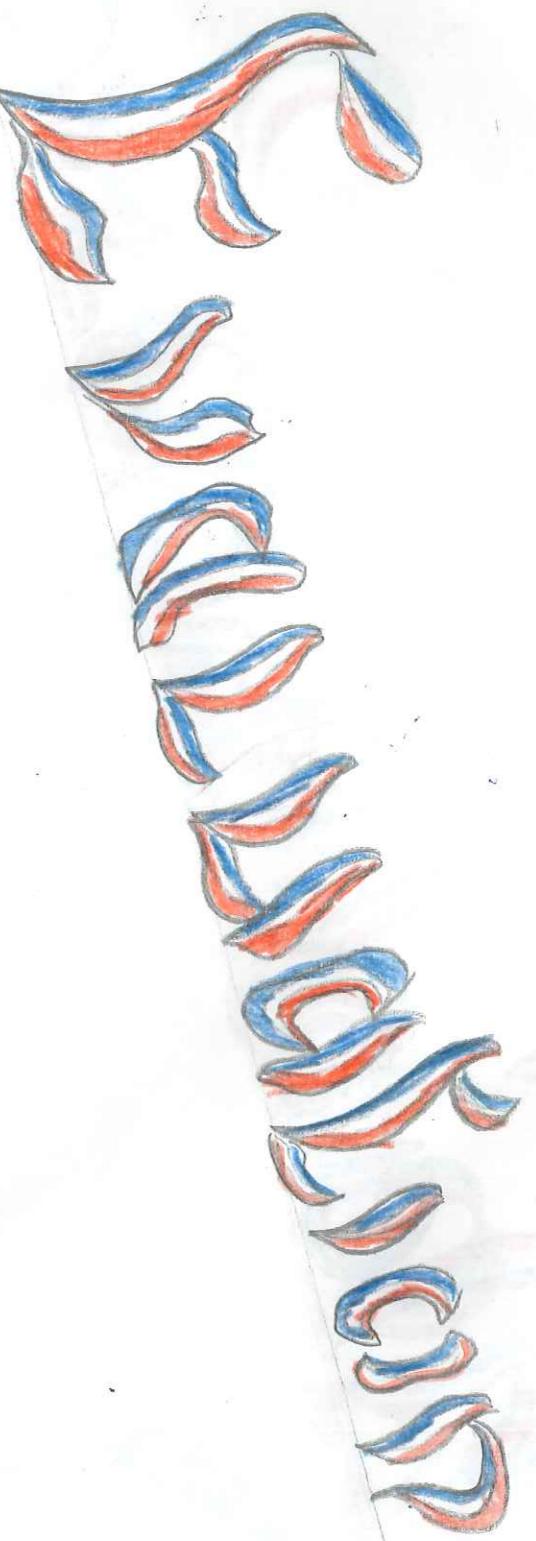
drill



5mm

strip heater





My design holds the item I hoped it would and does ok. If I was going to remake my model I would use a thicker piece of dowel so my toothbrushes would slip in better. It was important that I could put my toothbrush in and out and also see who's toothbrush is who. My toothbrush holder does this really well. I am pleased about the price of my model. I think my design looks really good as it is white and goes with my bathroom very well. My colour is white and goes well with the colour of my bathroom. My design is modern also is my bathroom which makes it better. My family also love it as it has make my sink in my bathroom a lot easier to clean and much tidier. My model is small and so is my sink which makes it fit great. My model is really safe and has no sharp edges. My rack is stable on the wall and won't fall off.