

A2 Product Design

Research into real animals- Character development

On this slide I look at the development of real animal characters and seeing what aspects they are taking from a real life animal and using those features for the animal character they are creating. This is important so that when I think of developing some sort of character that I can pick out main features of an animal so the child will recognise it as the same as the product.

Character: Judy (Zootopia)
 Animal based on: Rabbit
 Main features:
 -> Ears
 -> Tail
 -> Large eyes
 -> Slim figure

These are the features and the colours that I could make for my product if I include a rabbit in the product. They will be grey and white colours and will be made in felt. Doves will also be used to help them insert into the product, but Velcro for the nose if the nose is included in the design of the product.

Character: Maximus (Tangled)
 Animal based on: Horse
 Main features:
 -> Mane
 -> Tail
 -> Eye
 -> Mouth/muzzle

These are the features and the colours that I could make for my product if I include a horse in the product. I have gone for brown as the colour for the horse. The mane will be attached using Velcro where the other ones will be inserted using a dovetail technique. Will be made of felt.

Character: Po (Kung Fu Panda)
 Animal based on: Panda
 Main features:
 -> Black and white colours
 -> Large body
 -> Eye patches

For the harem I could make black ears and a black nose, and I could have large black patches that would Velcro a large one which could act as a saddle as well. Will be made of felt.

Parent Feedback:
 "I love this idea of using the features, and how they are based on a variety of animals. I think that will help the child's learning ability of identifying different animals as well as being fun mixing up the features to make their own animal!"

Summary:
 Here I have got inspiration by looking at real animals (and a popular imaginary one) and seeing the animalised versions of them. This allowed me to pick up on main features that my product should have such as animal ears, tails and large eyes. Using the main features of each animal will allow me to convey what the animal is to the user. I have designed possible features as well, relevant to each animal below.

Character: Slinky Dog (Scribble-Doo)
 Animal based on: Small Dog
 Main features:
 -> Ears
 -> Large eyes
 -> Colour

These are the features and the colours that I could make for my product if I include a dog in the product. They will be lighter colours than the horse, and more yellow so that the feature will not be confusing. Will be made of felt. Doves will also be used to help them insert into the product, but Velcro for the nose if the nose is included in the design of the product.

Character: Simba and Nala (The Lion King) and Puss in Boots
 Animal based on: Lion and cat
 Main features:
 -> Ears
 -> Mane
 -> Tail
 -> Nose

These are the features and the colours that I could make for my product if I include a cat in the product. They will be orange colours that relate to a ginger tabby cat in real life. Will be made of felt. Doves will also be used to help them insert into the product, but Velcro for the nose if the nose is included in the design of the product.

Character: Ferra Dragon
 Animal based on: Dragon
 Main features:
 -> Wings
 -> Tail

These are the features and the colours that I could make for my product if I include a dragon in the product. I have gone for quite traditional green dragon colours. The mane will be attached using Velcro where the other ones will be inserted using a dovetail technique. Will be made of felt.

Initial Design ideas

Simple design - This will allow the features to define what the product animal can be made into.

Made out of multiple layers of fast ply (flexible plywood)

Will be steam bent into the shape

Made up of layers or sheets

Will have plastic wheels (castors) on the bottom so child can move about on it.

Storage is very open which provides good accessibility so it for the children who may use this product.

Holes for features will be at the front and back of the product. Two at the front of ears, and one at the back in the middle for a tail. The child could wear any strap or wing if the animal features were for a dragon or Pegasus.

Parent Feedback:
 "This is quite ergonomic in its shape but it still looks nice and multiple features would probably be able to be used. The storage may need something to help keep things as I think that they may fall out quite easily for this design."

Specification	Met?
Aesthetics: The toy must be contemporary and simple as well as engaging	✓
Client: The toy must appeal to children aged 3-5 (and also to parents) (who will choose and purchase the child's toys)	✓
Cost: The toy should cost between £30 to £50	✓
Environment: Materials and manufacturing processes will be sustainable and eco friendly	✓
Size (maximum 30cm(w) x 60cm(h) x 30cm(d))	✓
Safety	✓
Function - the toy will be able to ride on toys that can move 180 degrees and have storage	✓
Materials: Plywood, recycled wood, felt and plastic	✓
Quality	✓

Summary:
 On the initial design this fits the shape of the design but I feel that the simplicity may cause a problem with storage so it may fall out easily. I could put felt on either side to prevent this, however, I think that it would take away from the aesthetic appeal.

Further development

I then realised that the more I look at my past design I have decided that I am still not happy with the shape and I think that the fact that the shape has included a 'head' makes the overall shape a bit messy. Therefore I have decided to take this away from the design and the cat come in for more aesthetically appealing to look at. I am happy with this shape and I think it will work well in comparison to the last design. I have also realised that the design looks a bit like one of my initial ideas, but more developed.

Parent Feedback:
 "This is a much better shape than the other designs that I have already seen, and I think I would prefer it without the base. I think that the features would work well and clearly show a child what the animal is meant to be portrayed as."

Summary:
 After developing my shape again and for the last time I noticed that it is similar to the shape of one of my original designs. I then realised that the shape is similar to the top right hand corner, and I realised the stars like effect that I had, so I have decided to use this but instead of roller blinds, I will use recycled wood slats.

With my idea, now I have decided the final shape I have been looking at what I could do to make the outside of the product more interesting, and possibly more environmentally friendly. I then saw this product and I like the overall appearance that the effect gives. It would also help to give the product a nice visual flow on the outside which may be tricky to do using standard bending ply.

Parent Feedback:
 "This is a much better shape than the other designs that I have already seen, and I think I would prefer it without the base. I think that the features would work well and clearly show a child what the animal is meant to be portrayed as."

Summary:
 After developing my shape again and for the last time I noticed that it is similar to the shape of one of my original designs. I then realised that the shape is similar to the top right hand corner, and I realised the stars like effect that I had, so I have decided to use this but instead of roller blinds, I will use recycled wood slats.

Also when I was looking for materials to create the base on the left I came across some reclaimed wood in a box which had been already cut into some slats, and this was the reason why I decided to change direction to making my product more environmentally friendly.

Above in my final to scale model that I have created using foam board, and two pairs of old wheels and straps that I had on the bottom. I am happy with the size of my product and I think that it will work well. The only things that were not included on my model is the handle bar and the features. The outside of the model will be made out of recycled materials. These strips of wood will be a similar length so they are placed near the middle. This is because this will allow the child to be more comfortable as it is a child's body length. Also because there will be a bit of room at the front and back it provides a small space where the child could place their feet. The side will be made out of plywood that will be cut using a laser cutter and my design on a 2D design tool. I know that it looks more aesthetically pleasing without the flat base, which was what was going to happen.

This will be lengthen slight so foot room is made for the child feet to rest. It will go in towards the middle for comfortable sitting.

Technical Drawings

Age	Sex	Height	Weight
3-4	M	95" - 101"	35 - 50 lbs
3-4	F	90" - 95"	30 - 40 lbs
4-5	M	101" - 107"	45 - 60 lbs
4-5	F	96" - 102"	40 - 55 lbs

Age	Sex	Height	Weight
3-4	M	90" - 95"	35 - 50 lbs
3-4	F	85" - 90"	30 - 40 lbs
4-5	M	95" - 101"	45 - 60 lbs
4-5	F	90" - 96"	40 - 55 lbs

Here are my technical drawings. This shows the plan view, front view and side view of the product. The plan view shows the product as if you were looking from a birds eye view, and it shows you the shape that the product will be in. It is shown in the middle and you will make it more comfortable for a child to put their legs either side. I have tried to make the slats as well. The research I have found to the left side has helped me come to these measurements.

The diagram below gives me an idea of how far out you can move your thighs, as this is important so that it will not make the width of my product too thick and a child will not be able to sit on it comfortably.

Summary:
 Here I have drawn up some final technical drawings. This will show my idea and what it will look like at different angles. I have also included some research that helped me get to the measurements that would be most suitable for my age group.

