

..New Brief..

Design a multi-functional product which will serve for longer than usual and whose disassembly is integral to its functionality.

..User requirements..

- Must be easy to assemble and disassemble
- Must benefit the user by combining products
- Must save the user money by lasting longer or eliminating products

..Design Criteria..

- Must combine products which are useful together
- Must use materials which are environmentally friendly or use less materials by combining products
- Must give the product a longer life than usual



The new brief was similar to the old brief, but focussed on the multi-functional aspect rather than the alternative energy source. When looking at the RSA brief, I liked the 'product that combines several functions and eliminates the need for other product' response. I also combined this with a longer serving product and one which disassembles. This gave me a large area for development. By defining additional design criteria as well as user requirements specific to the new brief, I had a 'checklist' which I could evaluate my product concepts against.

..Concepts..

From this brief I came up with a range of ideas, 3 of which I took forward and evaluated.

Multi-purpose technology - choose what you need e.g. camera, phone, emails, games, music etc.



Pros:

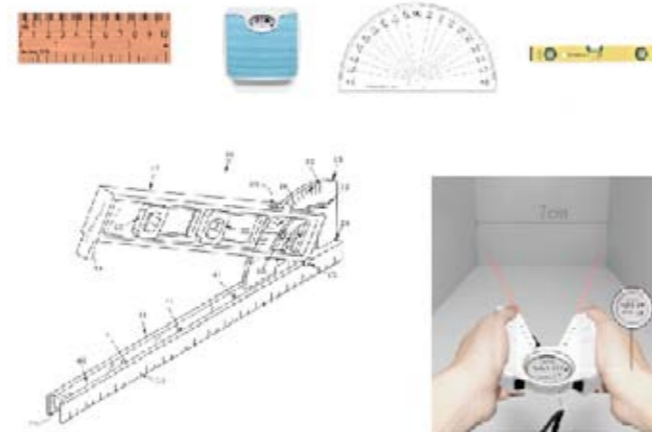
- *Parts can be charged separately, meaning battery life can be extended
- *Disassembled and assembled easily, ensuring only carrying what is essential
- *Less materials - less waste
- *Good user benefit
- *Good design stretch
- *Good profit potential

Cons:

- *Might be a hassle to not have all options handy at once
- *Not using alternative energy or sustainable materials
- *Not saving much energy apart from less charge dissipated

Hannah Jenkins PDE3

Measuring tool - measure distance/scale/angle etc. in one device



Pros:

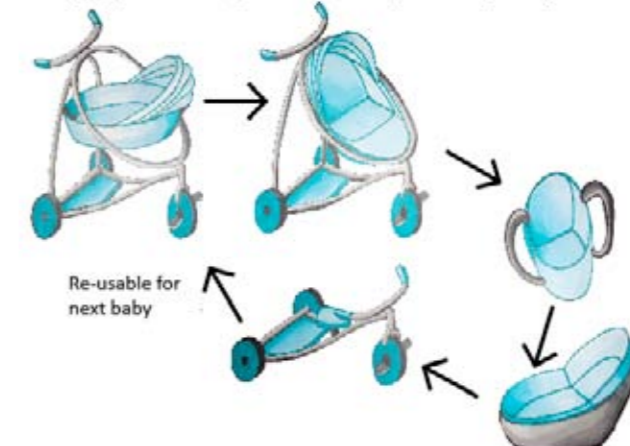
- *Keeps all tools in one product
- *Less materials - less waste
- *Less items for user to carry
- *No energy used
- *A lot of market potential

Cons:

- *Does not really extend life cycle of product
- *Not very much design stretch if trying to not use energy - solar power?

Hannah Jenkins PDE3

Baby pushchair which disassembles and transforms - buggy, car seat, back carrier, cradle, tricycle



Pros:

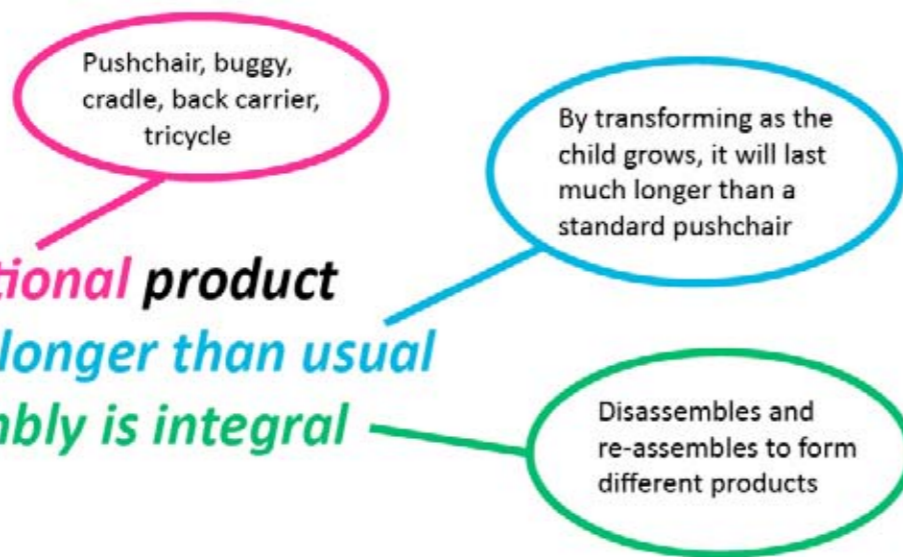
- *One product instead of many
- *Transforms as growth
- *Less materials - less waste
- *Less items - less money
- *Less products - less space
- *Makes tasks easier for user
- *Lots of design stretch

Cons:

- *Already masses of existing products which do similar - just have to do it better
- *Very complicated mechanisms to enable it to work
- *Child safety considerations
- *Models and solidworks are only way to develop but could be tricky

Hannah Jenkins PDE3

..Preferred Concept Direction: Transformable baby pushchair..



Design a multi-functional product which will serve for longer than usual and whose disassembly is integral to its functionality.

I chose to develop the transformable baby pushchair as it responded best to my brief. It also targeted the baby market which was an area I was keen to address in terms of sustainability. It is a very wasteful area with a lot of room for improvement. I found a lot of design stretch with this concept.

It could have helped to come up with more responses to my brief, but I found that once I had reached this idea, I wanted to develop it rather than think of more concepts. I was happy with the concept and it aided me to have more time to develop it, as it is a complicated idea. I had to figure out which products I wanted to combine and how best to do it.

..Possible Components..

- Pushchair
- Pram
- Car Seat
- Cot
- Back Carrier
- Buggy
- Cradle
- Rocker
- Push Tricycle
- Tricycle



..Considerations..

- Multi-purpose
- Adjustable
- Transformable
- Design for disassembly and assembly
- Combine Products
- Less waste
- Less products
- Less materials
- Second Life
- Longer Life Cycle
- Child Growth
- Compatibility
- Efficiency