

Context, Task and Design Brief

Design Context

Which Design Context (set by the exam board) have you chosen?

The 'context' needs to be copied into here. You can find the contexts and tasks on the common area in: Common Area>Technology>Resistant Materials>Year 11>GCSE RM Support Pack>CAT Task List

Design Task

Which design task have you chosen from the exam board choices?

The 'design task' that you have chosen needs to be copied into here. You can find the contexts and tasks on the common area in: Common Area>Technology>Resistant Materials>Year 11>GCSE RM Support Pack>CAT Task List

Here - Write a few sentences about why you have chosen this task

Design Brief

A Design Brief is a very short statement explaining what you intend to design and make – you should not go into lots of detail about how it will be made and what it will do etc.

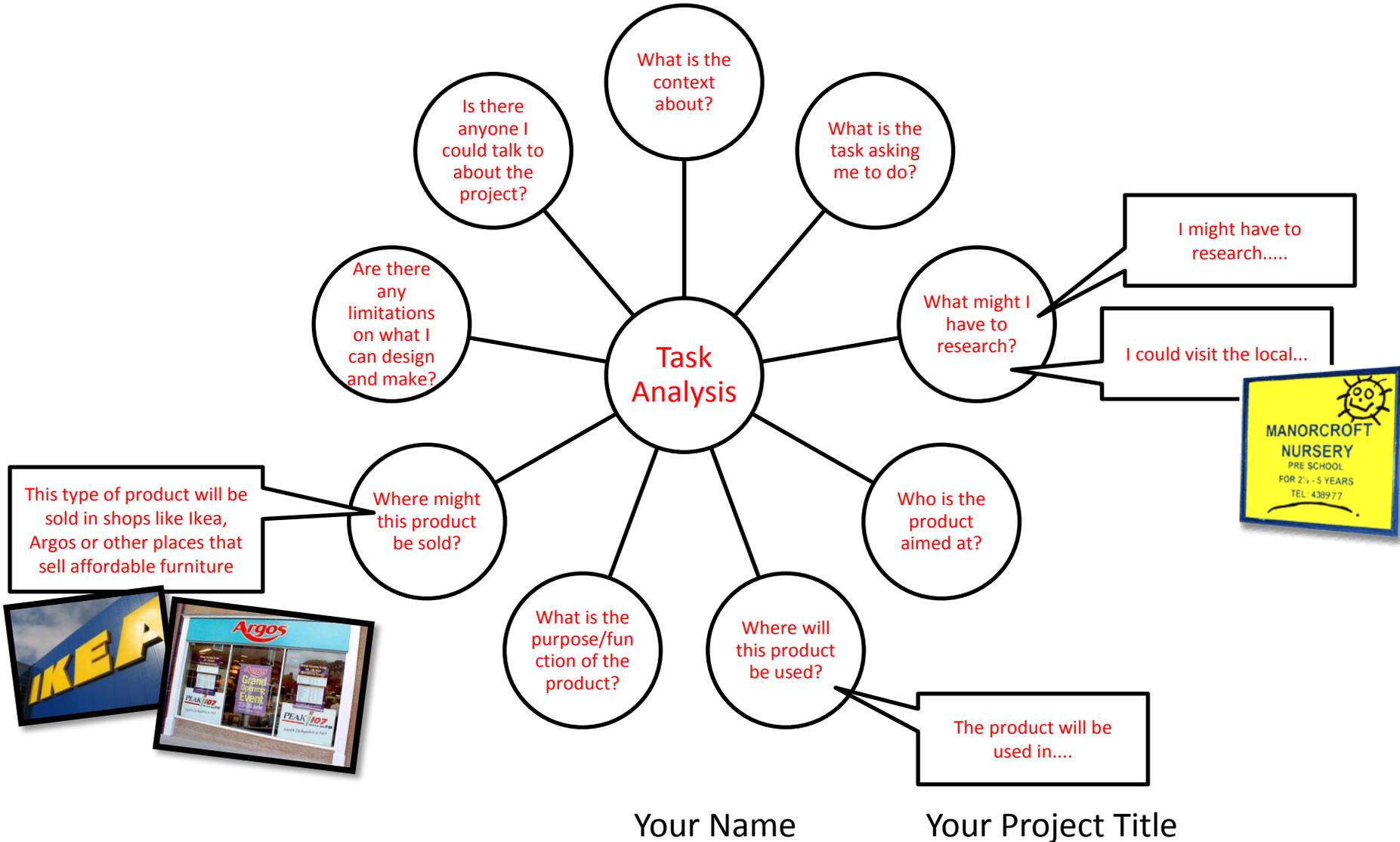
Example Design Brief – I intend to design and manufacture an educational toy for a 3-5 year old male or female child. The toy will help to develop hand and eye coordination skills. The toy will be used in a nursery or primary school.

Your Name

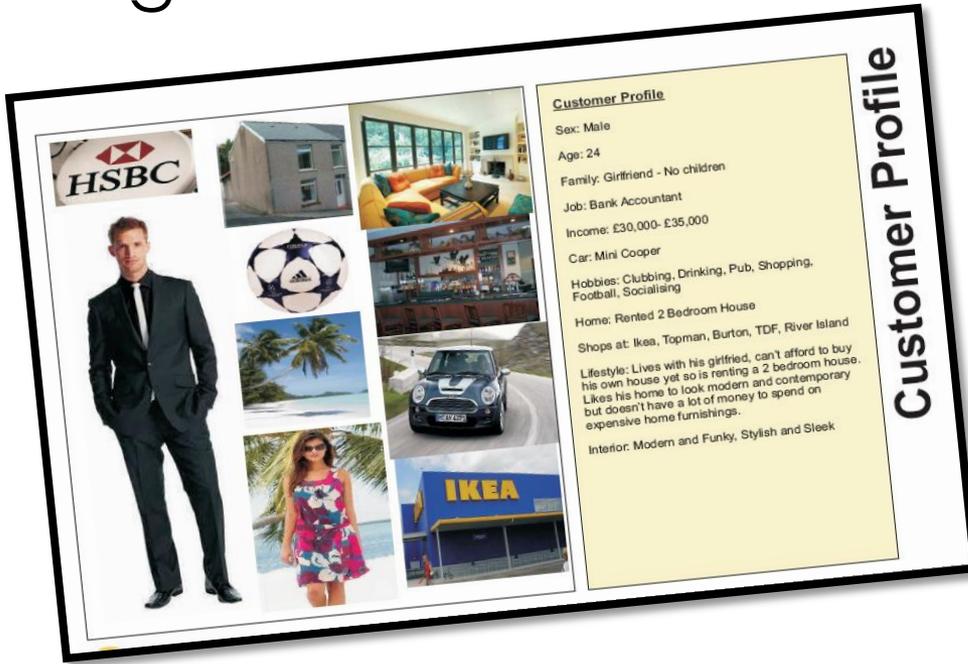
Your Project Title

Task Analysis

A Task Analysis is where you explore, in depth, the task that you have chosen to do. You can do this by creating a mind map. Add lots of information and suggestions to the mind map. Your task analysis does not have to look like this – it could simply be a paragraph of text exploring each area. You could also add a few images to reinforce the suggestions that you make.



Target User Profile



You must insert a picture of your target user and some pictures to represent their lifestyle

If you cannot get a photograph of the real target user then find an image of someone who is similar in age, style, sex etc

Name:

Age or age range:

Sex:

Likes:

Dislikes:

Hobbies and Interests:

Style:

Income:

Shops mostly at:

Favorite Websites:

Likes to visit:

Disabilities:

Complete the Target User Profile by adding as much detail as possible about the intended user. Give details of any specific requirements that the target user might have or want?

Your Name

Your Project Title

Research – Analysis of Existing Products

User and Target Market

Who is the product designed for?
Why is it aimed at this age group?
What makes it appeal to the target market?

Materials

What materials is the product made from?
Why have these materials been used?
What are the properties of the materials?

Aesthetics/Style

Is the product designed in a particular style?
Does it look attractive and appealing?
How do you feel about the product?

Environmental Concerns

Does making or using this product harm the environment in any way?
Does it use any recycled materials?

You will need to analyse **at least 4 products** that are similar to the product that you intend to make.

You will need to find details about the product and an image.



You will need to create at **least 4 sheets like this!**

Manufacture

How has the product been made?
What construction methods have been used?
One-off, batch or mass produced?

Function

What does the product do?
Does it work well?
Does it have any special features?
How does the product work?

Cost

What is the selling price of the product? Why is it this price?
Does the quality of the product influence the price?

Ergonomics

Has the product been well designed to suit the user? Is it easy to use, adjust or operate? Is it comfortable to use?

Your Name

Your Project Title

Research – Mood Board

As part of your research you will need to create a 'Mood Board'.

A mood board is a selection of images that relate directly to your project. A mood board can provide inspiration for design ideas.

Pack the page full of images related to your project!



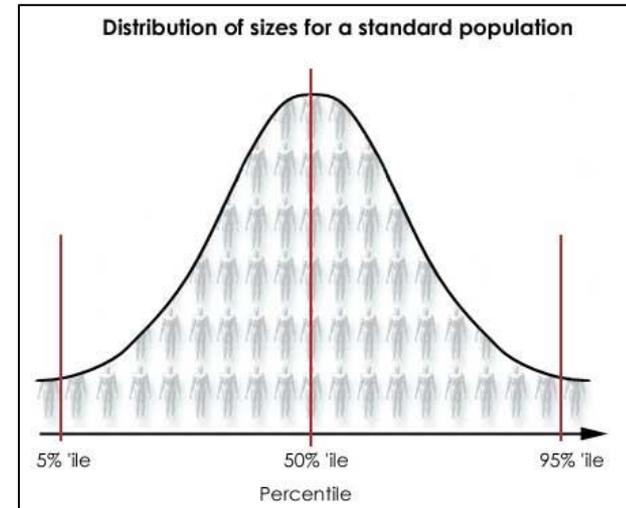
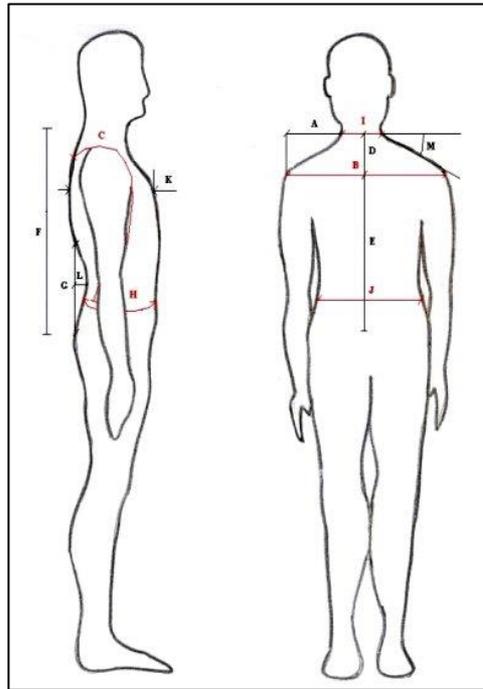
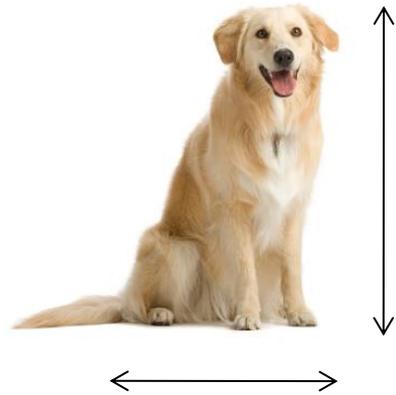
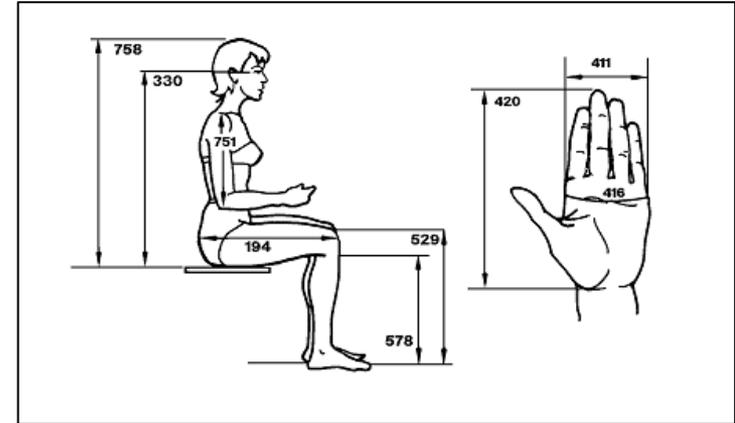
Your Name

Your Project Title

Research – Anthropometric Data

If you are designing a product that is going to be used by humans (or animals) then you will have to do some research on human and animal sizes.

Only provide information on what is relevant to your project. For example if you are making a table do not waste time researching child head sizes!



Your Name

Your Project Title

Research Summary

You will need to summarise and present the findings of your research. Explain what you have found out and describe how you will be able to use this information to help you when it comes to designing and making your project.

If you are struggling to complete this then it may be because you have not completed enough research!

Research Source	What I found out	How will it help me in my project?
Visual Resources/Mood Board	In this column you will need to explain what you found out during your research	Explain how the research may/may not help when it comes to designing and making your project
Product Analysis		
Questionnaire		
Books and Textbooks		
Interview with the Target user		

Your Name

Your Project Title

Product Specification

A specification is a list of things that your product must aim to meet. Be realistic about your specification. REMEMBER at the end of the project you will be evaluating your finished product against your specification points.

Target Market: (Who will use it?)The product must be suitable for...

Performance and Function: (What should it do?)The product must be able to..... It must have.... The product will....

Materials: (What will it be made from?) The product will be made from...

Aesthetics: (Appearance) The product will look... it will look modern/traditional... it will attract....

Cost: (Making costs, selling costs) The product will cost no more than... The product will have a retail price of around...

Safety: The product will have to be safe to use because....

Weight/Transportation: The product will weigh no more than... The product must be easy to transport and move....

Size: The product can be no taller than... The product must fit... The product be be able to hold the...

Manufacture: The product will be a prototype made by hand... some parts will be made using CAM

Ergonomics and Anthropometrics: (Is it easy to use/operate/sit at/open etc) The user must be able to operate/use/hold...

Environmental Concerns: The product will use recycled materials... The product must not harm...

Life Cycle: The will be designed to last...

You will need to write a specification point for all of the headings above – you may wish to include more specification points that are specific to your project

Your Name

Your Project Title

Initial Ideas

Initial Ideas

Note that I have researched my project and produced an initial specification based on my findings. I will come up with initial ideas for a make-up tidy. I will come up with between 8 and 12 ideas which I will be able to develop later on. Whilst designing my initial ideas I will refer to my specification to ensure I meet all the requirements my product "Mist" have.

1. funky, acrylic circles, inspired by retro design styles, mirror, one could be large bulb, acrylic pots to hold make-up, wooden supports for framework, bright/coloured, acrylic pots to hold make-up.

2. inspired by an old-timey, acrylic pots to hold make-up, metal wire with painted acrylic leaves, mirror, around 10 pots or about 2cm and spray painted work.

3. LET'S GET READY, acrylic pots to hold make-up, mirror, I like the way the sign is on the subject of the mirror, acrylic pots to hold make-up, vinyl letters, metal stands.

4. inspired by a hand-drawn, mirror, acrylic waves, wooden pot to hold brushes, wooden base frame for compartments, I like the shape of the base.

5. metal flowers - out of aluminium, also incorporated into mirror-shaped like shape, mirror, wood pot for brushes, I took inspiration from who are famous thing to create an interesting picture of my lady.

6. inspired by flower forms - acrylic wave of old-fashioned, acrylic pots to hold make-up, mirror, wooden wire flaps to hold brushes, wooden wire flaps to hold brushes, two drawers to hold cosmetics, metal top.

7. inspired by flower forms - acrylic wave of old-fashioned, acrylic pots to hold make-up, mirror, wooden wire flaps to hold brushes, wooden wire flaps to hold brushes, two drawers to hold cosmetics, metal top.

8. inspired by a hand-drawn butterfly, acrylic pots to hold make-up, mirror, I like the way the sign is on the subject of the mirror, acrylic pots to hold make-up, vinyl letters, metal stands, wooden pot to hold up mirror, four compartments, wooden frame, wave shaped compartments, trough/holding space.

9. acrylic pots to hold make-up, mirror, I like the way the sign is on the subject of the mirror, acrylic pots to hold make-up, vinyl letters, metal stands, wooden pot to hold up mirror, four compartments, wooden frame, wave shaped compartments, trough/holding space.

10. inspired by a hand-drawn butterfly, acrylic pots to hold make-up, mirror, I like the way the sign is on the subject of the mirror, acrylic pots to hold make-up, vinyl letters, metal stands, wooden pot to hold up mirror, four compartments, wooden frame, wave shaped compartments, trough/holding space.

11. inspired by a hand-drawn butterfly, acrylic pots to hold make-up, mirror, I like the way the sign is on the subject of the mirror, acrylic pots to hold make-up, vinyl letters, metal stands, wooden pot to hold up mirror, four compartments, wooden frame, wave shaped compartments, trough/holding space.

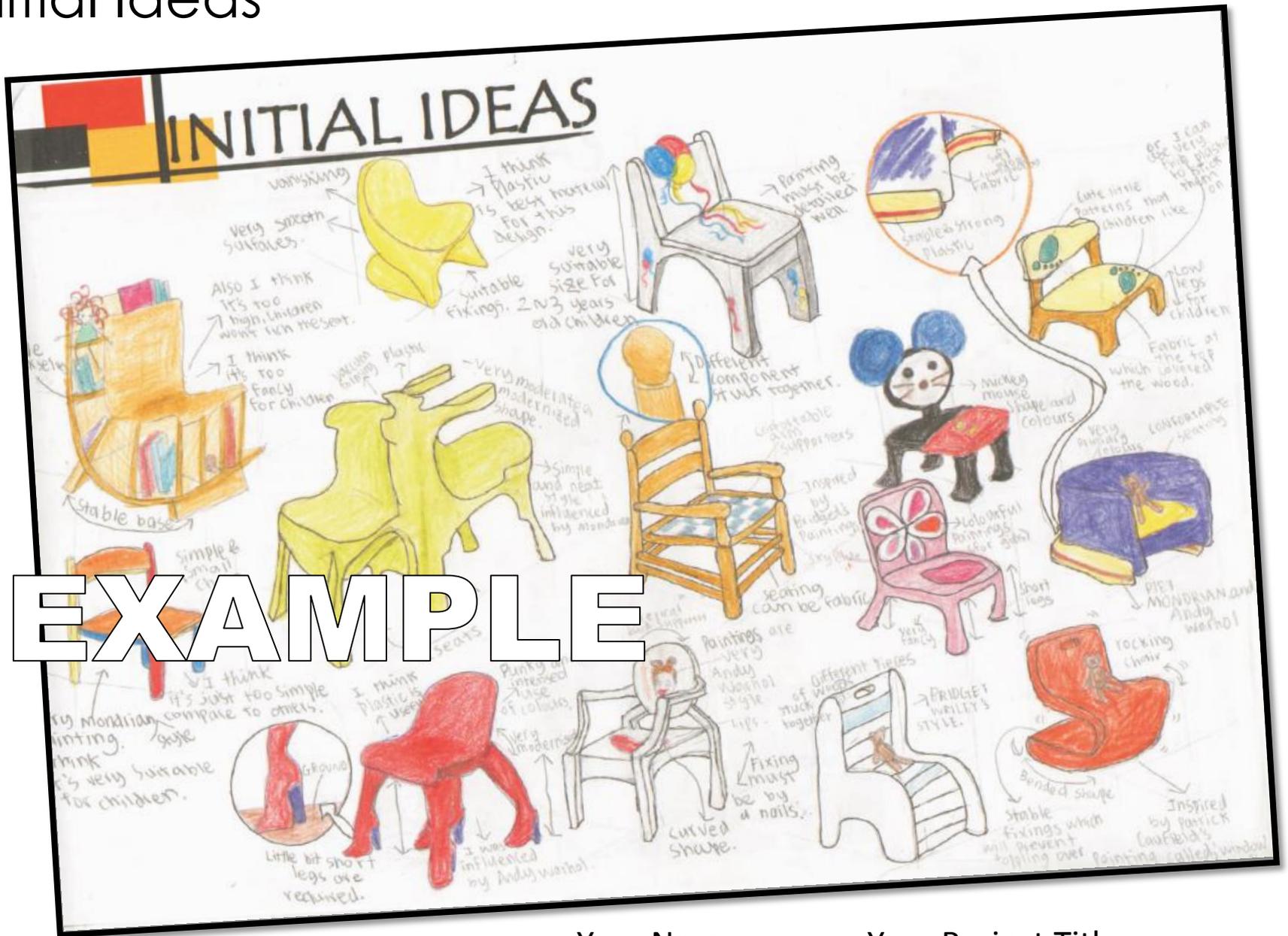
12. inspired by a hand-drawn butterfly, acrylic pots to hold make-up, mirror, I like the way the sign is on the subject of the mirror, acrylic pots to hold make-up, vinyl letters, metal stands, wooden pot to hold up mirror, four compartments, wooden frame, wave shaped compartments, trough/holding space.

EXAMPLE

Your Name

Your Project Title

Initial Ideas



EXAMPLE

Your Name

Your Project Title

Evaluation of Initial Ideas

Now that you have created a range of initial ideas you will need to choose the best one by evaluating your ideas against the specification. Use a ranking system or write short comments.

Specification Points	Idea 1	Idea 2	Idea 3	Idea 4	Idea 5
Target Market: The product must be suitable for male and female teenagers	★★★★	★★	★★★★★	Use a ranking system like this or.....	
Performance and Function: The product must be able to hold up to 12 DVD's	Yes – this design idea meets the specification point because there is enough storage space for more than 12 DVD's			Alternatively you can use comments to explain how the idea meets (or does not meet) the specification points	
Performance and Function: The product must be strong enough to support the weight of my 32 inch TV					

Summary of Initial Ideas:

You will need to write a summary of your initial ideas evaluation. Decide which idea is the most suitable for you to develop and explain why. What makes this design the best one? Does it fulfil the requirements of the specification? Is there more than one idea that meets all of the specification requirements – if so explain?

- Does not meet the specification point ★
- Meets few aspects of the specification point ★★
- Meets some of the specification point ★★★
- Meets most of the specification point ★★★★
- Meets fully the requirements of the specification point ★★★★★

Your Name

Your Project Title

Development - Considering Wider Issues

Explain how you have considered the following when planning and designing your product:

Social Considerations

Moral Considerations

Ethical Considerations

Environmental Considerations

Your Name

Your Project Title

Development – Materials

Now that you have created your initial ideas, as part of your development work you will now need to investigate materials that you could use in your project.

You will need to research a wide range of materials. This might include wood, plastics, metals, components and finishes.

Create a table for each type of material that you investigate – the table below is a good example. Use a key or rating system.

Cost Rating

Inexpensive **£**
 Moderate **££**
 Expensive **£££**

Suitability Rating

Unsuitable ★
 May be useful ★★
 Suitable ★★★
 Very Good ★★★★
 Excellent ★★★★★

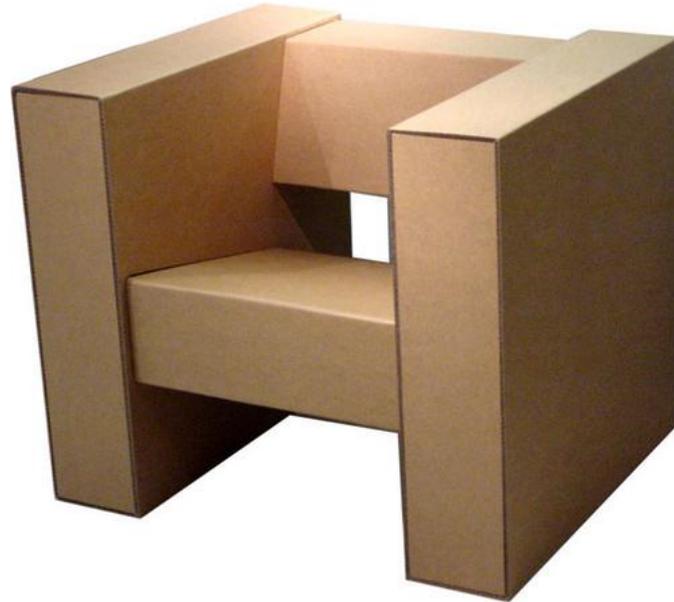
Woods (Natural and Manufactured Boards)								
Material Name	Image	Stock Sizes	Costs	Properties	Use in my project	Advantages	Disadvantages	Rating
Pine		15mm Thick 150/200 Wide	££	Softwood Easy to cut Smooth finish Light colour	Could be used for the table top and legs	Inexpensive Easy to cut and shape	Looks cheap Scratches/dents easily	★★★
MDF		3,6,9,12,15mm Mainly boards	£					

Your Name

Your Project Title

Development – Modelling Evidence

As part of your development work you will need to create a card model of your intended final design. You will need to photograph the model and put images of it on this page.



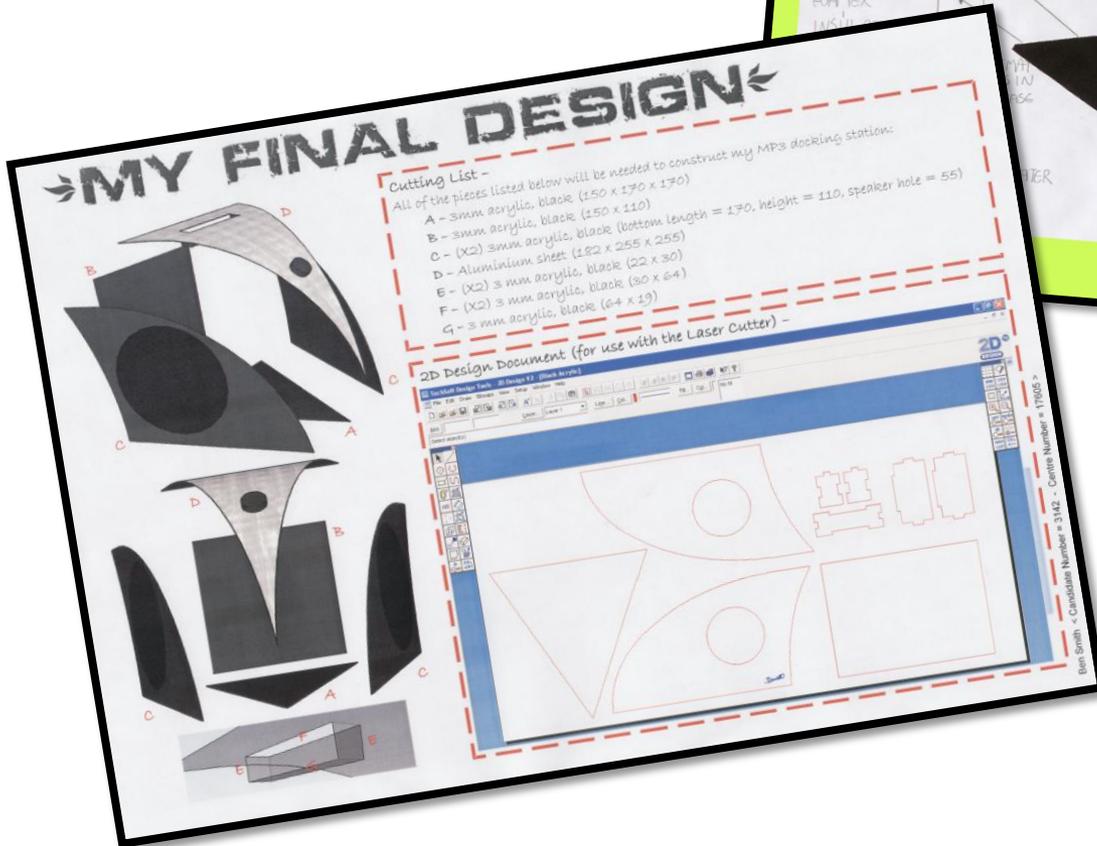
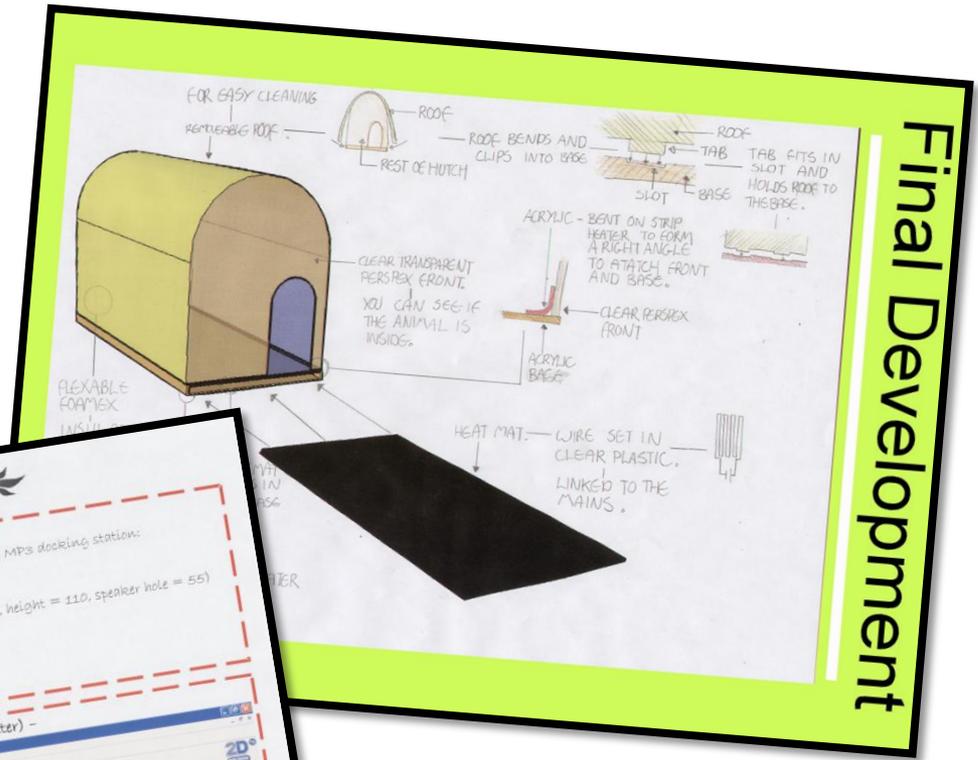
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Your Project Title

Final Design

Final Design – You will have to present a detailed final design drawing of your chosen idea.

This could be a 3D or 2D drawing. You must include sizes and add lots of notes to explain the idea.



Your Name

Your Project Title

Manufacturing Decisions

Manufacturing Specification – You will need to specify particular methods or techniques that will be used during the manufacture of your product and explain why you have chosen this particular method.

Quality Control – Explain or show how you intend to ensure that your product is manufactured to a near-professional standard. What controls or procedures could you put into place?

Manufacturing Plan – Provide a step-by-step or flow chart detailing how you intend to manufacture your product.

Manufacturing in Quantity – Explain how you could batch produce your product (or specific parts). This may include the use of jigs, templates or CAM

Your Name

Your Project Title

CAD/CAM Evidence

If you have used CAD (Computer Aided Design) or CAM (Computer Aided Manufacture) then you will need to provide evidence of this.

The evidence could be a screen-shot/images of your CAD designs or photographs of any parts that have been made using CAD/CAM.

Your Name

Your Project Title

Testing and Evaluation

Testing and Evaluation is very important

You will need to evaluate in 3 ways:

1 – Evaluate against your specification points

2 – Evidence of field testing (photographs of the product being used in a real-life situation)

3 – Feedback from the target user (what do they think of the finished product)

Your Name

Your Project Title

Modifications

1. Modifications and Changes

Describe/show (use photographs where possible) any problems that you had when designing and making your product.

Is there anything that you would change?

Which aspects could have been improved?

Did the target user suggest any changes?

2. Modifications for batch or mass production

If your product was going to be manufactured on a larger scale to be sold commercially in shops what changes might you have to make to the design?

Could the product be manufactured differently using different techniques?

Could any of the parts that you have made by hand be manufactured using CAD/CAM?

Your Name

Your Project Title