

Year 8 Textiles

Welcome!

For the next 9 weeks you will be completing an online version of a Textiles project that we create in class. Practical (making of the product) will continue in class but online work has been adapted into a theory only project. You may wish to do some of the practical tasks at home if you have the tools and equipment but you may need a parent or carer to help you to do it. All lessons are in this document so you will need to select the lesson that you are up to in your normal class.

So here is the project...

Project Context: (This is what your project is about)

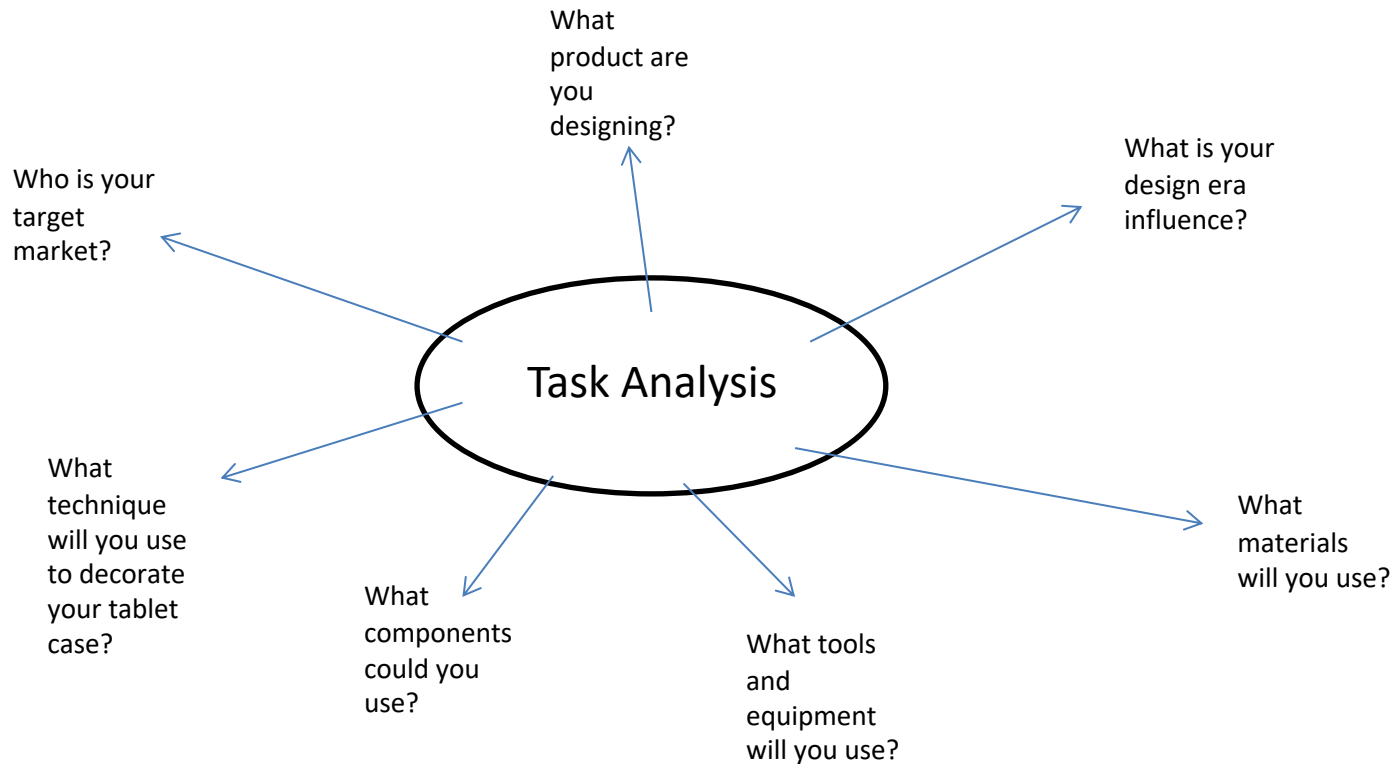
Many products are designed to protect objects from being damaged.

Design Brief: (This is what you are being asked to do)

Inspired by the design movement Memphis, design and make a tablet case aimed at teenagers using a stencil print.

Lesson one: Task Analysis

Task: Create a mind map and answer the following questions. Use the below mind map to help you.



Lesson 2: Natural and synthetic materials and fibres.

Introduction:

Watch the following clip to gather a simple understanding of the difference between natural and synthetic fibres and then answer the questions below in full sentences. The questions run in order of the video.

<https://www.youtube.com/watch?v=cRLPUAPCfuo&safe=true>

- Q1:** What are the two different fibres available?
Q2: What fabrics fall under the headings of each of the two different fibres?
Q3: Where are organic (natural) fibres sourced from?
Q4: Where are synthetic fibres sourced from?
Q5: What are the benefits of natural/organic fibres?
Q6: What are the benefits of synthetic fibres?
Q7: What are the benefits of combining both fibres?
Q8: What are pro's and con's of organic/natural fibres?
Q9: What are the pro's and con's of synthetic fibres?
Q10: Why are synthetic fibres able to melt?
Q11: How can polyester and Nylon be made to be fire retardant?
Q12: What kind of products are made from synthetic materials?
Q13: Which fibre is more absorbent and why?
Q14: The fashion industry are being a lot more conscious on the environmental impact of the clothing industry and the use of synthetic fibres-WHY?
Q15: Why are natural fibres more expensive to produce?
Q16: Synthetic fibres can be created through the use of recycling old plastic. What products can are fashion companies producing as a result of this?



Lesson 3: Natural & Synthetic Fibres – Silk – Natural Fiber (Animal fiber)

Task 1:Silk

Click or copy and paste the link below and watch the video (You may have to watch it a few times.) and then answer the questions about silk.

https://www.youtube.com/watch?v=eqFm_7KyfHI&safe=true

Q1: Where does silk come from?

Q2: What products are made from silk?

Q3: How many eggs does a silk worm lay?

Q4: What do silk worm eat?

Q5: How big do they grow?

Q6: Where does the worm excrete the silk from?

Q7: What happens when the silk hit the air?

Q8: What are the benefit of boiling the silk cocoon?

Q9: How do they harvest the thread once they are boiled?

Q10: How many cocoons does it take to produce one pound (1lb) of silk thread?

Q11: How long is a single thread of silk from a cocoon?

Task2:

Research question: Explore the internet and find out what the **disadvantages** are of silk-makes notes in your book.

Lesson 4: Natural & Synthetic Fibres – Polyester/Nylon (Man made fibers)

Task 1: Polyester v's Nylon fibres

Click or copy and paste the link below and watch the video (You may have to watch it a few times.) and then answer the questions about Polyester and Nylon.

https://www.youtube.com/watch?v=R_qBEY8Dry8&safe=true

- Q1:** What is Polyester also known as?
- Q2:** Nylon was created to mimic what natural fibre?
- Q3:** What are the properties of Silk and Nylon?
- Q4:** Which one is stronger?
- Q5:** Which material is less water resistant
- Q6:** Why shouldn't these materials be ironed?
- Q7:** Which fabric is easy to dye? (change colour)
- Q8:** Which fibre is more expensive?
- Q9:** Which fibre is harder to recycle? Why?

Lesson 5 : Natural and synthetic materials and fibres continued.

Task: Match up the Fibres to the uses and properties. An example has been done for you. (use your mind maps from last week to help you.)

Connect the fibers to the correct uses and properties.

Properties

- 1) Strong, smooth, stretchy
Keeps it's shape, crease resistant, highly flammable.
- 2) Strong, highly absorbent, cool to wear in hot weather, easy to dye and was, creases easily, can shrink and is flammable.
- 3) Strong and durable, non absorbent, resistant to creases, very warm, low flammability.
- 4) Lightweight, smooth, soft, expensive, weak when wet, creases easily.
- 5) Lightweight but strong and hard wearing, crease resistant, warm and non absorbent, easily damaged by sunlight.
- 6) Soft, warm, absorbent, crease resistant, can shrink and it takes a long time to dry, low flammability.
- 7) Fibers are interlaced to make this fabric, it's strong, hard wearing, holds its shape, will fray when cut and consists of a warp and a weft!
- 8) Warm and stretchy, can loose shape and unravel easily

Fibers, uses and properties

Natural fibers - Definition

Cotton

Wool

Silk

Synthetic Fibers? – Definition

Polyester

Nylon

Elastane

Knitted – Definition plus property

Woven fabrics – Definition plus property

Uses

Sportswear, swimwear, leggings, underwear

Jumpers, rugs, blankets, coats, carpets

Sportswear, raincoats, bedsheets, rope, bedding

Dresses, ties, soft furnishings, upholstery

Ropes, sportswear, tights, swimwear

Clothing upholstery, towels

This fiber comes from plants and animals and is known as coming from Biological sources. Renewable and biodegradable.

These fibers are known as Polymers and are made from manufactured and chemical sources or fossil fuels. They are not sustainable or biodegradable.

Uses two sets of yarn to make both woven at 90 degree angles called the warp and the weft

Made by interlocking loops of yarn together.

Lesson 6: Create a Memphis inspired moodboard

Task 1: Research in to the Memphis design movement and create a moodboard on this subject-this will help you with your future stencil design later on.

What is a mood board? A mood board is a range of pictures that overlap each other to form one large picture.

Moodboard example



Task 2: Write a summary of what you have learnt.

What colours can you see?

What shapes do you see?

What kind of patterns can you see?

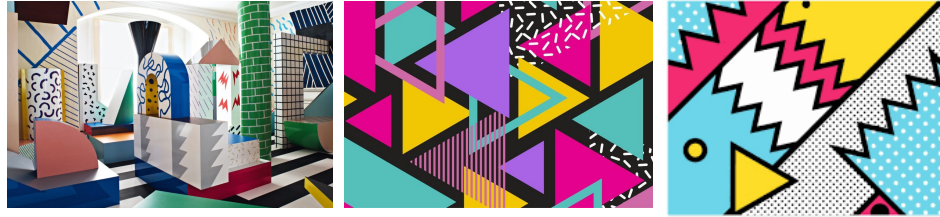
What else can you see?

How to create a successful moodboard

- Use a minimum of 10 images and stick them down.
- Overlap the images so there are no white gaps on your pages.
- Your moodboard should be 1 full A4 page.

Lesson 7: Stencil design.

What is a stencil?



“A stencil is a thin sheet of card, plastic, or metal with a pattern or letters cut out of it, used to produce the cut design on the surface below by the application of ink or paint through the holes.”

Task 1: Watch the you tube video below to understand how a stencil is made

<https://www.youtube.com/watch?v=yHsojM5d5no&safe=true>

Task 2: Using your Memphis inspired moodboard create a stencil design for your tablet case. Tonally shade your design making sure you are reflecting the Memphis theme. Create at least two different ideas on A4 paper.

****Hot Tip:** Use a black fine liner or black biro and outline your shapes after you have tonally shaded them. This will make your shapes pop!

Extension: (optional) If possible you could try to make your stencil at home if you have the Equipment. You will need a piece of card to do this. You could use scissors to cut out your shapes. In class, we use a craft knife but please speak to a parent before attempting this.

Lesson 8: Exploded views and material selection.

Task:

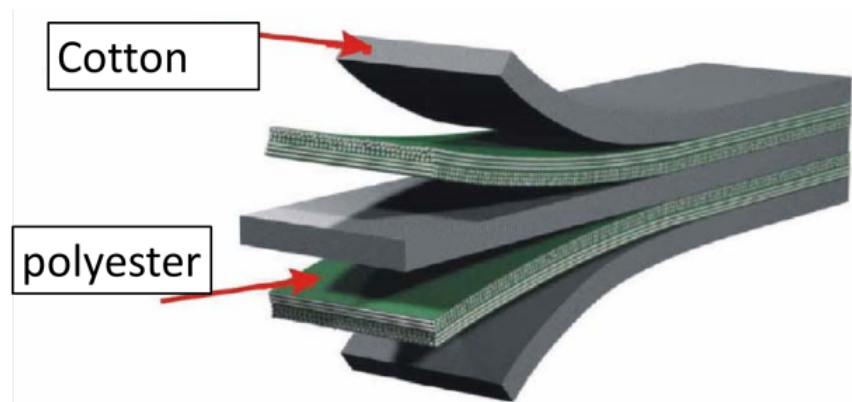
Based on the fabric property information from lesson 5, draw an exploded view of the fabrics you would use for your tablet case. Label each layer of fabric and why you would use it.

There should be four layers of fabrics; 2 outside (Back & Front) and two inside which your tablet will sit between.

For example: Front and back materials could be made of Cotton because.....

The inside could be made of Polyester because....

Present your exploded view on an A4 sheet of paper.



Lesson 9: Evaluating your design.

Task 1:

Answer the following questions about your work in Textiles.

Q1: What was successful about your design?

Q2: What did you find difficult about the project and how did you overcome this?

Q3: What materials did you decide to use for your tablet case and why?

Q4: What other sewing techniques could you use on your design if you had more time? – Think back to year 7 and the techniques you used for your Pixar keyring.

Q5: How could your design be improved?

Q6: What environmental facts did you learn about fibres?

Q7: What will you do differently in textiles next year?