

In Design and Technology at KS3 we have been completing projects based on the Design process and practicing skills of independent research, product analysis, sketching techniques, modelling and design development. We have also been learning about the theory side of Design and technology by looking into materials like papers, boards and textiles and we have recently started to consider the environmental impact of designing new products. We have been thrilled with the work that's been produced and have received messages from students telling us how much they are enjoying their design work. We've even been learning from our students during this time, as some students have been creating work in really ingenious ways. For example using 'itailor' software and Nike's customise your own trainers. Below are some examples of the wide range of outcomes.

Product analysis.

The Board
The board is 40cmx45cm, but can be folded to 22.5cmx22.5cm. This helps fit more things in the box such as playing pieces, billboards etc.

The Towers
There are four towers, one for each person. You put your billboards here after you have bought them.

The Billboards
The billboards are put into your tower after you buy them. You can only buy them if you land on them and the bigger the billboard, the more it costs.

The Money
This is the money. It is used to buy billboards and the more money you have, the higher chance you have at winning. If you have no money, you lose.

The Playing Pieces
The playing pieces are used to go around the board whenever you roll the die. Whatever they land on, you have to decide whether to buy it or not.

Chance and Empire Cards
Two Empire Cards are given to you at the start of the game to get you out of sticky situations, whereas Chance Cards are given to you when you land on the "C". They can either be good or bad, so cross your fingers!

Information included on the box

- This game is for players aged 8 and above.
- It is for 2 to 4 players.
- The Green Dot Symbol shows that the company can go into a recycling scheme.
- The product meets all safety, environmental and health requirements.
- This shows consumers that this game is safe for children to use.

Contents List

- Game Board
- 4 towers
- 6 brand tokens
- 30 billboard tiles
- 6 office tiles
- 14 chance cards
- 14 empire cards
- Money pack
- 2 die
- Game guide

Product Analysis- Lego Chess

Ailie Hobbs SA Esher

The Board
The board is 40cmx45cm, but can be folded to 22.5cmx22.5cm. This helps fit more things in the box such as playing pieces, billboards etc.

The Towers
There are four towers, one for each person. You put your billboards here after you have bought them.

The Billboards
The billboards are put into your tower after you buy them. You can only buy them if you land on them and the bigger the billboard, the more it costs.

The Money
This is the money. It is used to buy billboards and the more money you have, the higher chance you have at winning. If you have no money, you lose.

The Playing Pieces
The playing pieces are used to go around the board whenever you roll the die. Whatever they land on, you have to decide whether to buy it or not.

Chance and Empire Cards
Two Empire Cards are given to you at the start of the game to get you out of sticky situations, whereas Chance Cards are given to you when you land on the "C". They can either be good or bad, so cross your fingers!

Information included on the box

- This game is for players aged 8 and above.
- It is for 2 to 4 players.
- The Green Dot Symbol shows that the company can go into a recycling scheme.
- The product meets all safety, environmental and health requirements.
- This shows consumers that this game is safe for children to use.

Contents List

- Game Board
- 4 towers
- 6 brand tokens
- 30 billboard tiles
- 6 office tiles
- 14 chance cards
- 14 empire cards
- Money pack
- 2 die
- Game guide

Barrel back
Woolen support
Soft and comfy leather which is fitting with the shape
Support for your legs covered in leather
It's on one shape because it's stronger than a flat one
Seat with the same properties as the backrest
Metal cross are both made from polished wood because they support the whole chair. Also it is polished to make sure it's protected and will seem more premium

Materials

Plastic	Durable, Affordable
Metal	Strong, Stable
Cushion	Comfortable, Soft
	Cheap

Client Needs

She wanted a simple stool that supports the back and is easy to clean. She also wanted it to be comfortable.

Techniques

I'd add a ball joint at the bottom of the seat. That'd allow it to spin.

Colours

White - Complements all colours
Yellow - Stands out but doesn't clash

Inspiration

This product has been inspired by Phillip Stark. I took inspiration from his simplistic product design. He uses minimal colours and breaks up the shape with holes.





Evaluating my ideas and the models

Model 1

Positives – Lots of storage, cool design with clear inspiration
Improvements- Ensure the model for storage is sturdy as wobbled with any weight applied to top.

Model 2

Positives – Inventive idea, nice way to store pens.
Improvements- Impractical, needs more storage space and better idea to be able to store pens.

Final Design Proposal

My draft design

How does it suit the client?
It is the right size and price and environmentally friendly

How it has been inspired by the designer you have chosen?
I liked the style of Norman Foster's architecture with the use of height and curves

What materials will I use and why?

- Plywood (for the base)
- metal tubing (for the pen holders)
- sheet metal (for the curved hole punch holder). These materials architectural looking and recyclable.

What techniques will I use to make it?

- Sawing for plywood base and metal tubing
- Hole drilling into plywood base for metal tubes
- Bending for sheet metal to form curved section
- Glue for metal tubes onto the base and sheet metal curved section onto base

sail cloth

sailcloth is used in many materials like flax, hemp, cotton or in different forms like synthetic fibers like nylon, polyester, aramids and carbon fibers in different woven, spun and molded textiles.

Most woven materials are made from polyester also known as Dacron that was introduced by Bainbridge as a replacement for cotton in the 50's. wovens are very durable making them ideal for cruising sails. Laminates are made by bonding together layers of different materials to form a sandwich.

Sailcloth is more waterproof than traditional choices because it has four layers of protection. An ultrathin layer of PET that acts as a waterproof barrier because it's a film, not a woven fabric. Sailcloth is also more durable than traditional materials, with abrasion resistance and fray prevention built into the fabric.

hook at back of shoe to ease foot in

for the colour scheme I am using fabric similar colour with orange, red and brown

Converse-style mesh design but comfort base like exercise shoes

Conceal pull-on shoe with hook

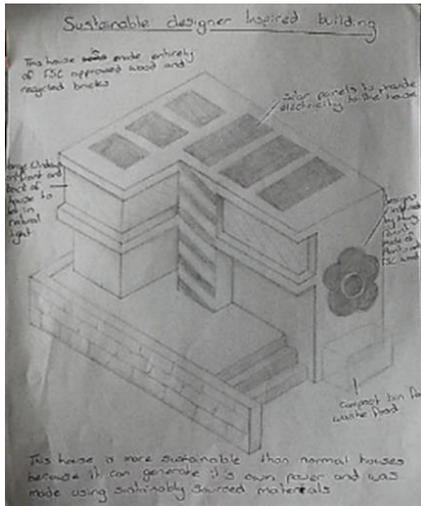
I am going to use a device for the shoe as it is easy to tie orange and red for the colour of the shoe.

This shoe is also going to be made from a flexible material to ease the foot in

No distinguished pattern on the material only pattern like fabric draping across the red.

foam base, thin spring for maximum comfort

Questions: Does it suit the client? 5/5, 4/5, 3/5, 2/5, 1/5
 Creative: 100 million points



Mary Quant

British fashion designer & icon of the 60s
Flower Power

MARY QUANT'S LIFE

Mary Quant was born in 1934 and is now 86 years of age. She is well known across the globe for her iconic hairstyle and her pictures on the cover of Vogue! One of her most well-known pieces are the mini-skirt and hot pants. These are her most famous ideas!

Both of Mary Quant's parents worked as teachers when she was born in London. Quant went to Beckenham High School for education and continued to Goldsmiths College to study illustration. In 1954, was when she met Alexander Plunket Greene. He was her business partner and future husband. In 1967, the couple married, and sadly in 1996, her husband passed away. The couple however had one child called Oriana.

CANNARY STREET

Cannary street is a very popular street situated in London. Many famous designers had shops there as it was the birthplace of the swinging sixties! It is the home of punk, skin heads and new romantic. Cannary always will be the epitome of culture and lifestyle in London's West End. Mary Quant had a shop here which she was famous for hosting!

INSPIRATION

Mary Quant was inspired by pop art because of the graphic qualities of artists such as Andy Warhol. This influence also seen in her skirts and leggings, in which she used popping and five colours in her designs. This was a turning point in history and helped show that women could wear whatever they desired. The word was traditional materials such as PVC and plastic for use in clothing and accessories.

LOGO

Her logo was very clearly inspired by the flower power of the time hence the flower as a logo. Although the original logo is black and white in some of her creations it is shown in different colours bringing a whole new effect!



The jersey dress

Quant was the figurehead of the jersey dress boom. She produced thousands of different designs in a huge array of different colours and styles. This included different collar shapes, sleeves, zips, buttons and skirt shapes.

While frame-knit jersey was used since the 17th century for undersweat, it was only after World War 2 that synthetic fibres became cost-effective in mass production and new fabrics were being produced by machines up to 10 times more efficient than looms used traditionally. The production change led Quant to see potential in easy jersey clothes as outerwear. Pull-over pinafore jersey dresses were a key part of Quant's first Ginger Group collection, launched in late 1963.



They were cheaper than her tailored wool dresses and bonded wool jersey soon became her go-to option. It gave the stretch and structure she needed for her designs. The designs were practical, affordable, colourful and crease resistant, making them a driving force in the democratisation of style.

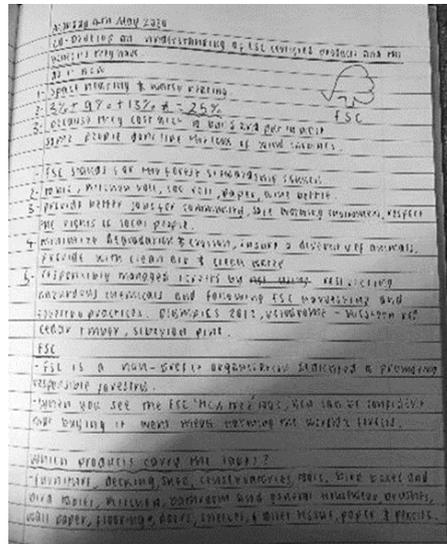
Product profiles

The skinny-rib sweater

The inspiration for the skinny-rib sweater came from childrenswear. In her autobiography, Quant said that she 'pulled on an eight year old boy's sweater for fun' and that she was 'enchanted' with the result.

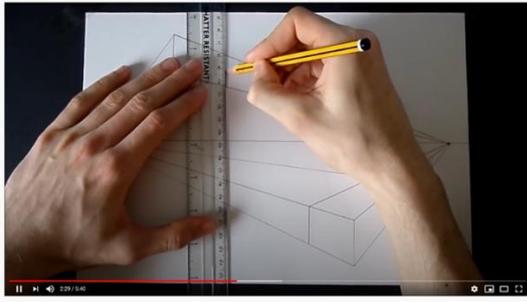
Sweaters paired with pinafores were the building blocks in Quant's Ginger Group – the wholesale label she formed in 1963. By 1964, the collection also included 'Adam's Rib' which was a skinny sweater with 1/2 length sleeves that was available in black, pink and jade.

Since the 1960s, the skinny-rib sweater has retreated and returned to be a practical way to add contrasting colour to an outfit. None of the original Quant skinny-rib sweaters have been found which suggests how useful they were.



We've been delivering our work in a variety of ways from Quizzes through SMHW, Scaffolding sheets to support learners, Exemplar materials, Video clips used to explain techniques and model outcomes, Do it now tasks, and teacher explanation through recorded sound clips. We've also been preparing our year 10's by giving them regular exam questions to practise linked to the topics we've been studying.





Careers that use these skills

Interior designer

Interior designers plan and supervise the layout and decoration of the inside of buildings.



- 1 Point Perspective
- Horizon line
- Vanishing Point
- Guide lines

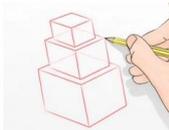


How to Draw Buildings
 How to draw buildings. Whether you're creating an architectural drawing or just a simple sketch, there are some basic rules to follow. This video will show you how to draw buildings in a simple and easy way. It covers the basics of drawing buildings, including how to draw windows, doors, and roofs. It also includes tips on how to use perspective and shading to make your drawings look more realistic.

- Tips**
- Draw lightly in pencil so that you can easily rub out mistakes.
 - If your overall goal is to draw very complex architecture (e.g., the Eiffel Tower), know that this is a good place to start. Practice over and over with the basic three-story building, and once you have the mechanics down pat, you'll be ready to start drawing more intricate structures.
 - If you need help drawing the cube, see Draw-a-3D-Box.

<https://www.wikihow.com/Draw-a-3D-Box>

<https://www.wikihow.com/Draw-Buildings>



Example Exam Questions

Multiple choice example:

A method of raising money from lots of people to launch a new design is called:

- A A co-operative
- B Crowd funding
- C Fair trade
- D Virtual marketing

(Total 1 mark)

Example Exam Questions

This logo is on product labels for some decorative cushions.



(a) List **three** principles of Fairtrade.

- Principle 1 _____
- Principle 2 _____
- Principle 3 _____

(3 marks)

Example Exam Questions

1. Explain the Advantages and Disadvantages of using Crowd Funding?

Advantages

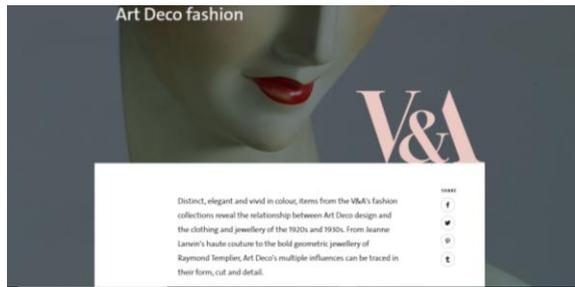
Disadvantages

(8 Marks)

We've been setting flexible learning tasks for those students who can fit it in with their studies. The Year 10 textiles student have been encouraged to watch the Great British Sewing Bee to support their knowledge of materials and techniques. Each week they are asked to send their prediction of the winner and their thoughts on favourite garments, techniques or suggestions to improve one of the items.



For our future GCSE students, we will also be asking them to complete some Design work by studying some iconic work in a virtual famous museum. Watch this space!.....



We have also encouraged our students to use some of the free Computer Aided Design software that's available out there. The links below might help students in completing your Design and Technology work at home.

Techsoft 2D design is a piece of software that we use in school for CAD when developing our designs. This company have released the software for free for all students and can be downloaded below. Why not have a play around with it and see what you can do!

<https://www.techsoft.co.uk/adverts/coronavirus-covid-19>

Google sketch up is also a very useful piece of CAD software. This is very easy to use and can help you to produce really impressive 3D drawings. Again the best way to learn how to use it is to have a go and play around.

<https://www.sketchup.com/plans-and-pricing/sketchup-free>

'FashionDesign' is an app you can download from your app store which gives you hundreds of different options when designing clothes.