



Flat Packed Charity Collection Boxes.

GCSE Product Design
Maximising exam success.



Flat Packed Charity Collection Boxes.

The exam is split into two sections.

Section A & Section B.

Section A is a design based question worth approximately 30 marks. The topic of which will be known by your teacher in advance of the paper.

Section B is all other theory elements. A mixture of short and long written answers. This section we have been focusing on in our **MOCK EXAM REVISION.**





Exam expectations. 'Flat packed charity collection boxes.'

The theme for this years section A (the design question) is flat packed charity collection boxes.

It is felt that you will need to design a piece of packaging for a charity which can collect money or give away gifts which could be sold to raise money for a charity. You will need to have a clear understanding of nets, packaging, printing methods, graphics, creating a logo and commercial manufacturing techniques.

Remember section A is usually worth 30 marks [25% of the paper].

You will be provided with a note book which you can write notes in during lessons. Any activities in lessons will be completed in this book to form revision notes.

Your completed questions will be marked by your teacher with comments on improvements included.



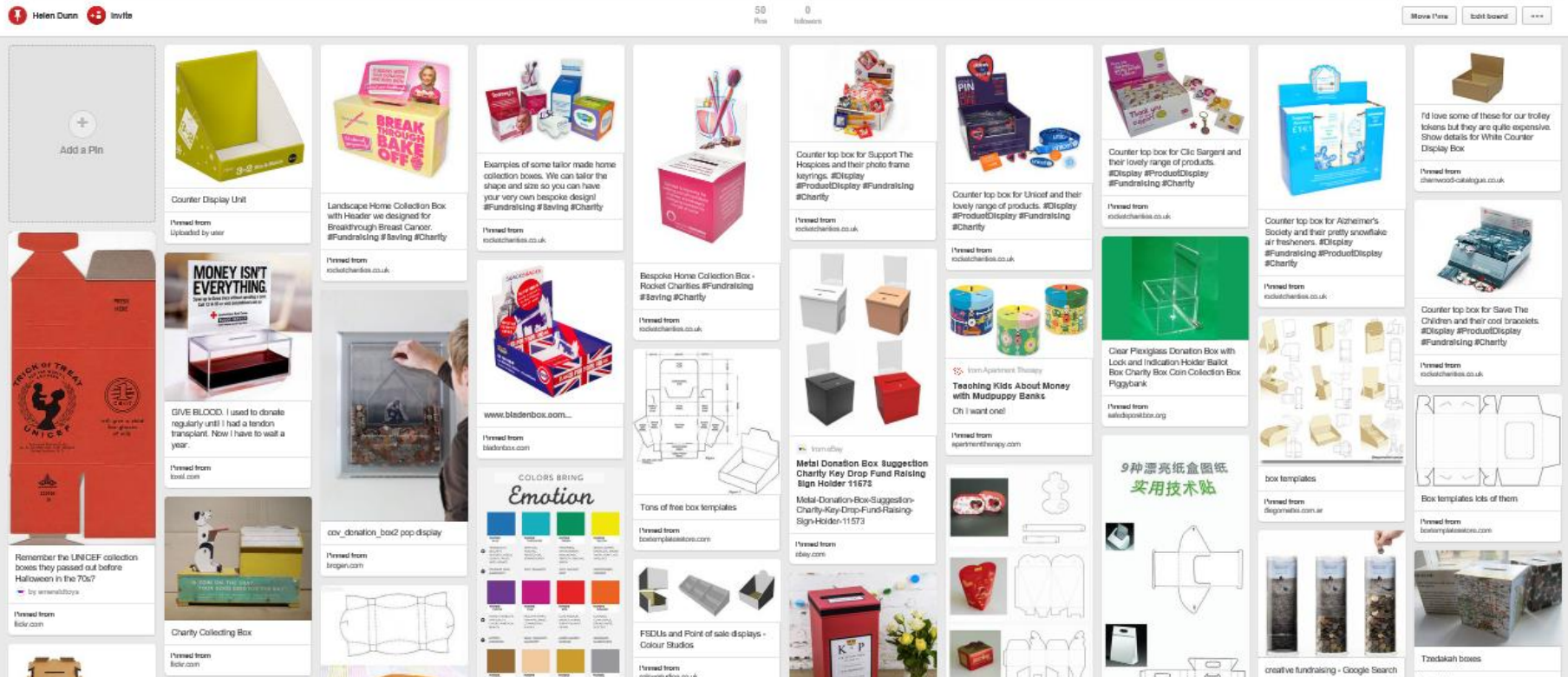
The following slides are designed specifically to support this.



Mood Board.

Charity Collection Boxes - Product Design Section A.

Revision Aid



Plenty of inspirational images online.

If you are on Pinterest you can check my board which I have saved different ideas on. The board is viewable on the revision website.



BOLD



SIMPLISTIC



LOGO IS PROMINENTLY DISPLAYED



CHARITY NAME IS PROMINENTLY DISPLAYED



INFORMATIVE



BOX IS IN THE SHAPE OF THE CHARITY LOGO BEING SUPPORTED



MADE OUT OF CARD OR PLASTIC



WHAT DO THESE CHARITY BOXES HAVE IN COMMON?



PRODUCT ANALYSIS – dissect the products



Easy to assemble, carry

Easy to read font, silhouette of an image used without the use of too much detail.

Easy to insert money, store money.



High quality graphics printed onto card using offset Lithography.

Graphics protected with Varnish/spot varnishing.

Made out of card, plastic (PVC – Polyvinyl chloride)

Bright, contrasting colours Used.



What is a charity collection box?

Who is collecting & what for.

Money

Shape of container



Which of these do you think are flat packed?



Section A is usually split into 4 questions.
One might ask you to state specification points.

You will then probably be asked to design a product
(charity box) for specific target user.

Lets look at some past section A questions.

Designers often get inspiration for new products from design movements or the work of other designers.
 In this question you will consider how the Memphis design movement could influence the design of new products.
 You are going to create a design for a product for a child in the **under-seven age range**. This product must be based on the Memphis style.
 Name the product you are going to design.

In the table below give **three different** design criteria which will make your product suitable for the user.
 Give **one** reason for each design criteria.
 An example is given for you.

Example of previous question

You are going to create a design for a product for a child in the **under-seven age range**. This product must be based on the Memphis style.

In the space below, develop a design for the product you have chosen. You should show enough detail for somebody else to be able to make it.

There are marks for:

- how well your design links to the Memphis style
- originality of ideas
- materials and construction techniques
- how well you communicate your design.

Example Design Criteria	Reason
Should be hard wearing.	So that it stands up to everyday use and does not break easily.

Your Design Criteria	Reason
1
.....
.....
.....
2
.....
.....
.....
3
.....
.....
.....

Example of previous question

Or you might be given the specification

The insulated mug below will be on sale as a promotional gift at the Commonwealth Games.

Sketch a design for packaging the insulated mug.

Marks will be given for:

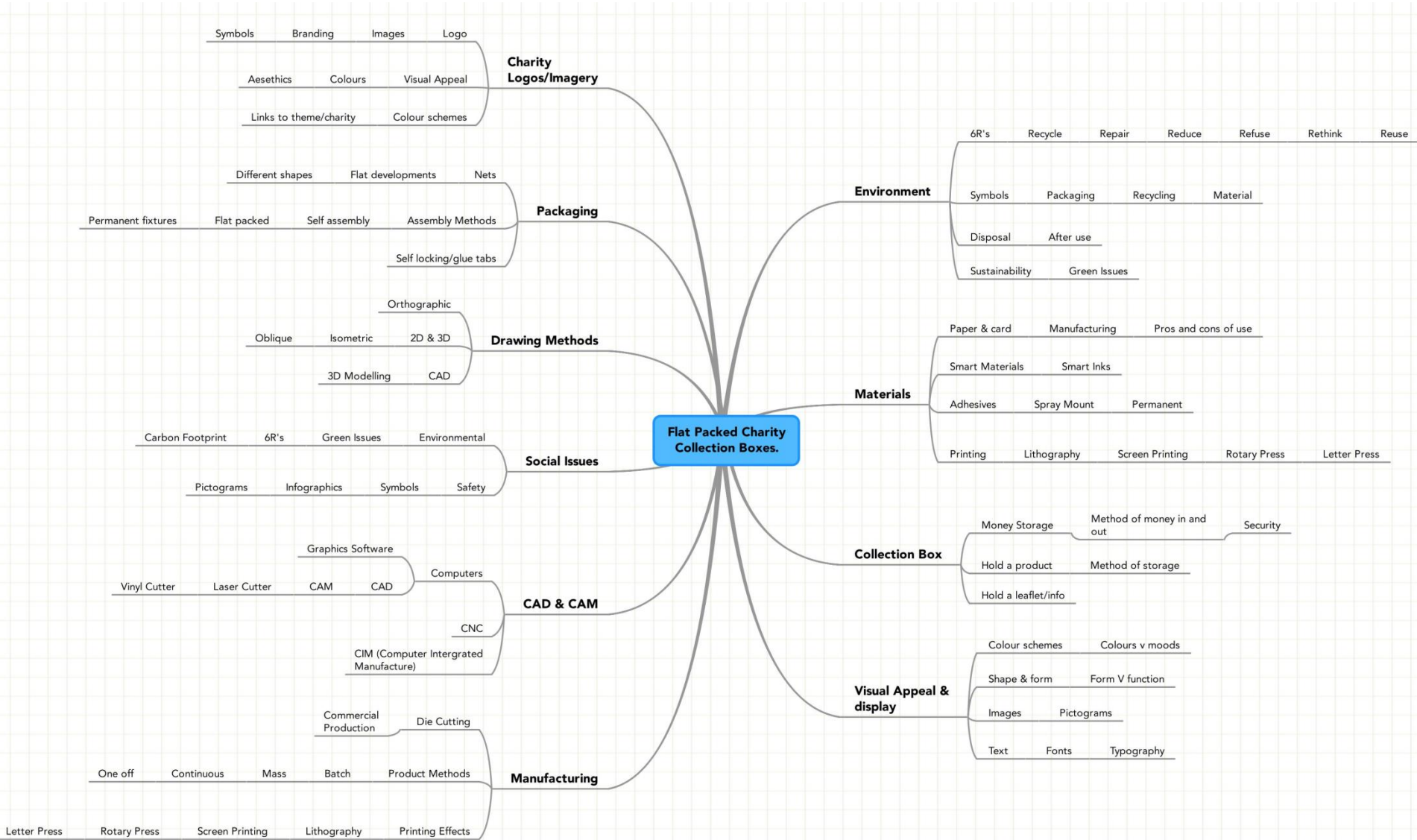
- A creative packaging solution promoting the unique nature of the sporting event
- The construction of the packaging to hold and display the mug
- The protection of the mug during transport and storage before purchase
- Information to the customer and end user about the product specification, features and dimensions.



Specification for the mug		
	Volume	400 ml
	Space needed by the mug	170 mm × 120 mm × 80 mm
	Materials	Stainless steel and polypropylene
	Care	Dishwasher safe
	Features	Sealable lid to keep heat in

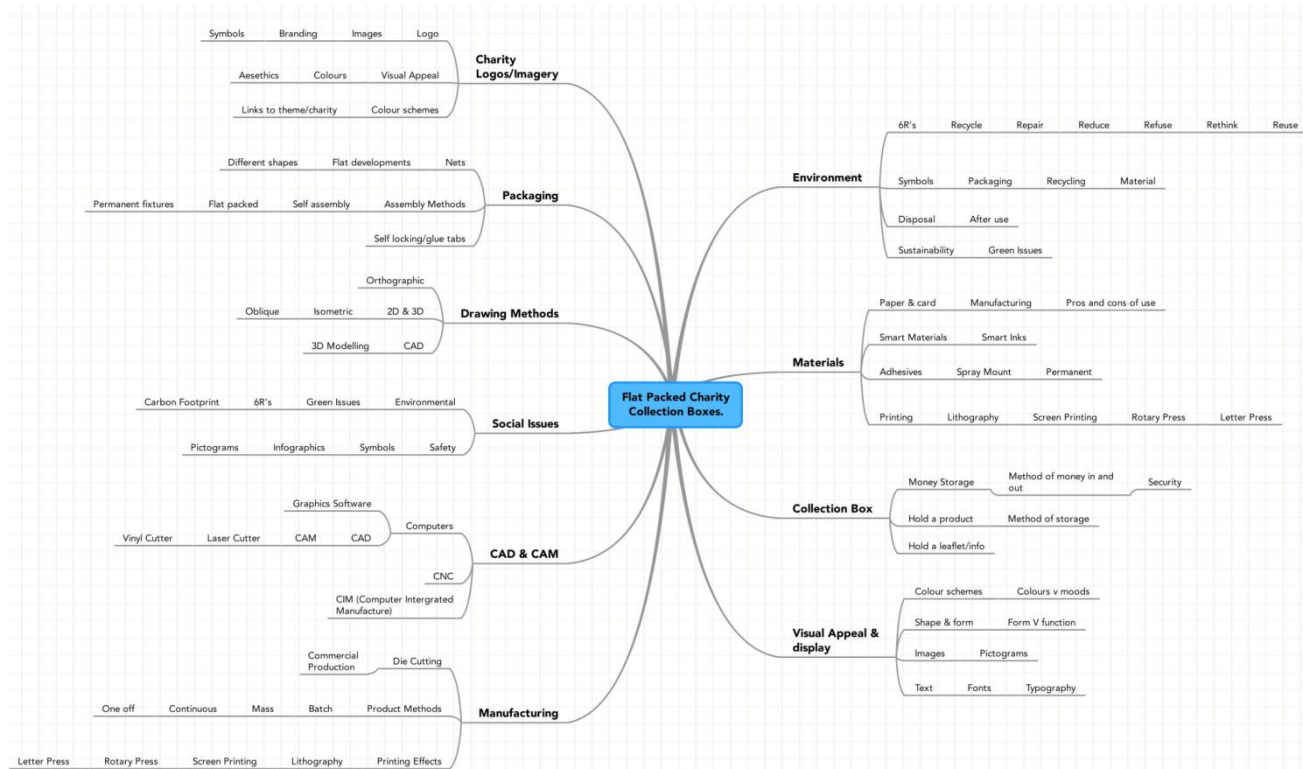


Mind Map of revision areas we will cover within our section A revision.





Mind Map of revision areas we will cover within our section A revision.



You will be provided with a copy of the revision spider diagram. Using the coloured pens (green, orange and red) I would like you to highlight which pieces of information you feel:

- **CONFIDENT** (Understand it and could answer in detail)
- **SO-SO** (You feel you could answer it in parts but you aren't confident)
- **NOT AT ALL** (No idea and would leave this question in the exam)



What to design?

The preliminary material tells us that the context for the designing question is: **Flat packed charity collection boxes.**

- If you look back at past questions like this candidates were asked to design **mainly using card. & consider methods of printing graphics onto the packaging.**
- Think about who the charity is collecting for - children, animals, prevent disease, the forces etc.
- Think about how the money might be collected, stored, emptied.
- Think about how the charity might be promoted – logos, colour, branding, symbols, celebrity endorsements.
- Think about where the collection box might be used – shop counter, to be held, free standing etc.





Your problem?

Flat packed charity collection boxes suggests:

- A single product.
- A box probably made out of card with printed graphics.
- A box which can be easily assembled from a flat net.
- A box which can be posted flat.
- A box which can store loose change, notes or hold a product to sell (e.g.) pin badges.
- Promoting a charity or a campaign.
- Text and images (such as logos) likely to be important.
- Generic charity or a specific branded charity (e.g.) Barnardo's, Macmillan cancer etc. might be considered.





Where to start

Potentially this is a large topic to investigate so we will be concentrating on:

- Card types and constructions – nets.
- The use of new materials (alternatives to oil based polymers)
- Communication techniques – 2D, 3D, colour, dimensioning, labelling.
- Printing methods and die cutting.





Your problem?



Section A:
Flat packaged packaging for a charity collection box

Section B:
Questions will be based on general subject theory.

You will be provided with a revision booklet that will cover most of the information that you will need to be successful in the exam.

It is important to listen in class, revise at home, attend intervention sessions

GCSE Product Design Revision





Question:
What is the purpose
of the packaging?



These are some examples of different charity collection packaging which allows for coins/notes to be stored within the box itself. Some of the boxes are for storage of 'products' which can be sold to promote the charity and still collect money (e.g.) Poppies or Marie Curie Daffodil pin badges.

- **P**rotect
- **I**nform
- **C**ontain
- **T**ransport
- **P**reserve
- **D**isplay



Lots of packaging will serve more than one purpose.

For example, this crisp packet:

- Contains
- Preserves
- Informs

Remember:
I PICT PD!

In your revision books please write I PICT PD and what the letters stand for.

PROTECT

To protect - A product from damage or contamination by micro-organisms and air, moisture and toxins. The product must be protected against being dropped, crushed, and the vibration it suffers during transport.

Delicate products such as fruits need to be protected by a rigid package such as a laminated container. The product must also be protected against the climate including high temperatures, humidity, light and gases in the air.

One of the main purposes of packaging is to protect the product.



INFORM

Information that is useful to consumers and companies such as Supermarkets, is printed on packaging. This includes, ingredients, sell by dates, price, special offers, manufacturers address, contact information, product title, barcode and more.

The bar code is extremely useful to the shop selling the product. When the barcode is scanned, the computer system automatically determines if the product needs reordering. Also, the price of the product appears at the till.

Packaging is often used to inform the user about the product.



In terms of a charity collection box why would it need to inform? & how would this be achieved?



It may explain the different features of a product.



GCSE Product Design 2016: Section A – Flat Packed Charity Collection Boxes.

What is a barcode?

- A set of vertical black lines or varying thickness that can be read by a scanner.
- The thickness of the bars and spaces between them correspond to numbers that make up a unique code for each type of product
- They can provide shop staff with prices for products and make it easier to control stock levels- thus make reordering easier.



What is a QR Code?

QR codes (Quick Response Codes) are seen on packaging. They are a type of 2D barcode and they can be used as a form of advertising. QR codes are accessed by smart phones with the right 'app' installed.

The QR scanner reads the QR in a similar way that bar codes are read, converting it to a URL (website address), text, email, or phone number. If the QR code directs the customer to a website, it appears on the screen of the smart phone.





Logos and symbols are often applied to packaging, especially by companies that regard their products as a 'brand'. Branded products often have an advantage over non-branded products



Some successful products are promoted through competitions, contests, sales and discounts, on their packaging. Products can also be promoted by a well known celebrity.



Customers / potential customers can use their smart phones to enter an interactive world, directly from the QR code (Quick Response Code) on the packaging of products. When scanned, the code directs the phone to display the website linked to the product. This usually promotes the product and is often an attempt to persuade the customer to buy it.



CONTAIN

Products can often contain lots of loose materials or components.....



The packaging is there to keep them all in one place.

TRANSPORT

A package should be designed to make it easy to transport, move and lift. A regular shaped package (such as a cuboid) can be stacked without too much space between each package being wasted.

This means that more packages can be transported in a container of a lorry. Unusually shaped packages can lead to space being wasted and this can be costly if thousands of the same package are being transported.

Transportation is a major function of packaging. Sometimes this is simply to get the product from the manufacturer to the retailer.



Sometimes it is to allow multiple products to be transported more easily from the retailer to the customer.



PRESERVE

Many products, especially food need to be preserved. This might be to protect them against weather, temperature, bacterial etc.



Glass is one very common material which is used to preserve products.



GCSE Product Design 2016: Section A – Flat Packed Charity Collection Boxes.

Packaging is the main way products are advertised and identified. To the manufacturer the package clearly identifies the product inside and it is usually the package that the customer recognises when shopping.

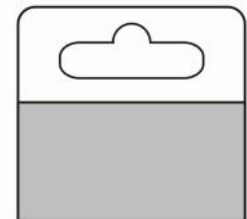
DISPLAY

Advertising is very important when a manufacturer launches a new or existing product. The package, through its colour scheme or logo, is what is normally identified by the customer.

Packaging is often produced to make products easier to display.



A cut out called a **Euro Slot** is often added to make it possible to hang products easily.





Which functions are relevant?

Arguably, only three are likely to be relevant to this problem:

- **Display** is likely to be the most important issue.
- **Inform** is essential as the charity will be getting their point across to encourage donations.
- **Protect** is also likely to be an issue as the box is holding money as mostly loose change.

- Protect
- Inform
- Contain
- Transport
- Preserve
- Display



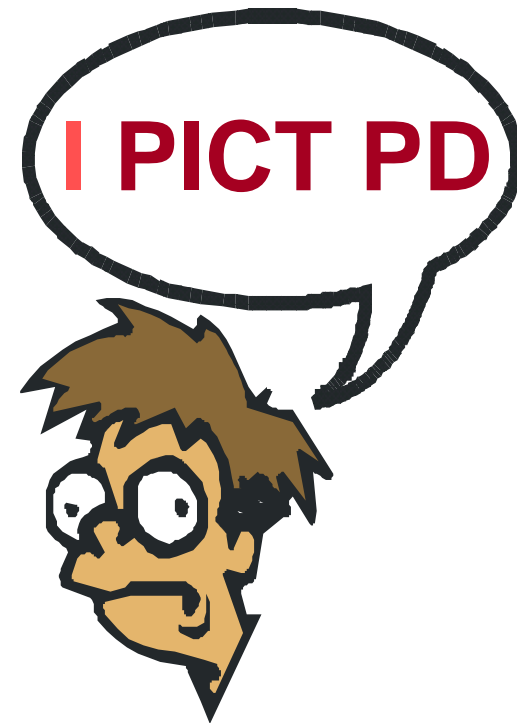


The functions/purposes of packaging

Now we have covered the functions/purposes of packaging. This is often the first question that appears in the exam paper. Against where you have written I PICT PD in your revision books I would like you to write *2 functions for each.



- Protect
- Inform
- Contain
- Transport
- Preserve
- Display



If you can remember these you can write design criteria and explain the functions or purposes of packaging. This is ALWAYS the first question in the exam worth 4-6 marks.

WHAT IS REQUIRED ON PACKAGING

- Company name/charity logo.
- Name of the charity.
- Information about the charity.
- Appropriate images (people the charity is supporting).
- A slogan/Statement of intent.
- European standards logo.
- Barcode.
- Slot for loose change to go.
- Euro slot/delta hanger or hanger for the users neck.
- Recycle logo.
- Picture of the product (if any) e.g. Poppies or pin badges.

Remember:

- I – Inform
- P – Protect
- I – Identify
- C – Contain
- T – Transport
- P – Promote
- D - Display

In your revision books please draw the table and complete the remaining parts. Use IPICT PD to help (a question in the exam is worth 6 marks).

FUNCTION	EXPLANATION
TO PROTECT	<i>To protect the container from damage or contamination. To protect the product against being dropped, crushed, and the vibration it suffers during transport. The product must also be protected against the climate including high temperatures, humidity, light and gases in the air.</i>
TO PROMOTE	
TO INFORM	
TO CONTAIN	
TO DISPLAY INFORMATION	
TO IDENTIFY THE PRODUCT	

By V.Ryan

Disassembly



To research into this topic more you are going to look at existing flat pack charity boxes.



Task 1

You will have 10 minutes to draw the collection box in 3d.

Try and show as much of the sides as possible (use isometric).

Show what graphics are on the box (label to help)

Don't forget the net key.



————— Solid line (cut)

----- Dashed line (score/fold)

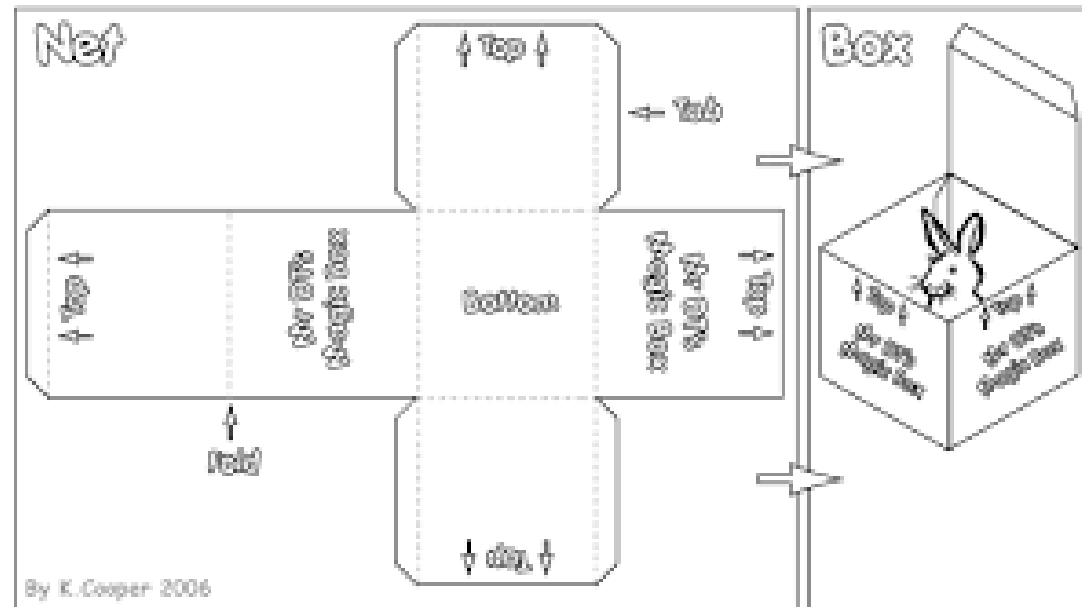
You need to be able to draw quickly but neatly to show your ideas.



Task 2

Carefully take the box apart and lay it flat.

Draw the net. Make a note of sections that have been glued, folded or cut (how could you show this when drawing the net?)



Task 3

Individually you now need to evaluate the product.

Do you think the design works well? Why?

Are there aspects you would change? What are these?



Sharing your
thoughts

Draw a net of the collection box

Information that is needed on the box

How do you show construction methods on a net?

3d drawing

Draw the symbols that are shown on the box

How are nets printed and manufactured?

How is colour used on the collection box?

Evaluate the design





GCSE Product Design 2016: Section A – Flat Packed Charity Collection Boxes.

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Section A

Answer all questions in the spaces provided.

Question 1 is about flat packed packaging for a charity collection box. You are advised to spend about 35 minutes on this question.

- 1 WWF (World Wildlife Federation) is a charity which protects endangered wildlife and environments, tackles climate change and promotes sustainable use of resources. They often collect money for their charities using card collection boxes and selling animal products. WWF have asked you to design a new packaging box which will hold small items for sale as well as a box for collecting the donations.



- 1(a) The table below gives one function of packaging of charity collection boxes. Give two more functions and in each case explain your answer.

Function	Explanation
Promote	To clearly promote the charity through branding, images and text. The charities aims should be clearly promoted explaining why donations are required. The products for sale should be advertised and encourage donators to purchase.

(6 marks)

1 mark per function.

Section A is worth approximately 30 marks and is based on a specific theme. A sample of how the question might look has been produced for you to practice during lessons.

There are simple techniques to memorise to maximise your ability to answer this section effectively.

Give two more functions and in each case explain your answer.

Function	Explanation
Promote	To clearly promote the charity through branding, images and text. The charities aims should be clearly promoted explaining why donations are required. The products for sale should be advertised and encourage donators to purchase.

2 marks per explanation.

You can either give two reasons or give one reason and back it up with fact/detailed explanation.

Consider the marks. 1 mark = 1 minute answer time.

Remember:

I – Inform
P – Protect
I – Identify
C – Contain
T – Transport

P – Promote
D – Display



GCSE Product Design 2016: Section A – Flat Packed Charity Collection Boxes.

1 (b) Name two materials which would be suitable for the promotional packaging to be manufactured from. Give a reason for each material chosen.

Material 1

Reason

Material 2

Reason

(4 marks)

Question 1 continues on the next page

Question 1 (B) within section A is always a 4 mark question regarding materials and their suitability.

This is an easy 4 mark question. You get a single mark for naming a material and a mark for giving a reason.

Remember to refer to the product which in our case will be packaging for a drink.

Possible materials:

- Cardboard
- Carton board
- Corrugated cardboard
- Plastic

Possible reasons:

- Inexpensive material
- Able to print colour/graphics
- Can apply a gloss finish
 - Can be recycled
- Can be manufactured using CAD/CAM



Exam Paper Style Question.



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Section A

Answer all questions in the spaces provided.

Question 1 is about flat packed packaging for a charity collection box. You are advised to spend about 35 minutes on this question.

1 WWF- (World wildlife federation) is a charity which protects endangered wildlife and environments, tackles climate change and promotes sustainable use of resources. They often collect money for their charities using card collection boxes and selling animal products. WWF have asked you to design a new packaging box which will hold small items for sale as well as a box for collecting the donations.

1 (a) The table below gives one function of packaging of charity collection boxes. Give **two** more functions and in each case explain your answer.

Function	Explanation
Promote	To clearly promote the charity through branding, images and text. The charities aims should be clearly promoted explaining why donations are required. The products for sale should be advertised and encourage donators to purchase.

(6 marks)

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Below and opposite, sketch a design for the packaging for the WWF cash donations.




Marks will be given for:

- A creative packaging solution
- How the packaging would be manufactured
- Surface decoration including the use of colour
- Notes to explain how the packaging performs the functions described in 1 (a).

(6 marks)
(5 marks)
(4 marks)

Now it is your turn to have a go.

Using the knowledge that you have learnt apply that to a exam paper style question.

Ensure you read the question carefully and answer in full sentences.