

# **GCSE PD 2016**

## **Sample Exam paper.**

**Name:**

**Total:**

## Flat pack charity collection boxes

The examination board state "Candidates may wish to undertake individual research into the context. This might involve simply being more observant when in otherwise familiar situations or taking an individual initiative to discuss the context with friends, relatives or other appropriate people." and "In the early stages of research, it may not be apparent what is worth recording and what is not. It is recommended therefore that candidates initially record information, ideas and data and then towards the end of the preparation period, select and summarise the relevant research into a form which is concise and easily used for revision, e.g. notes, sketches, photographs, diagrams."



Money Collection Boxes for fund raising campaigns and charities need to grab attention and the cardboard charity donation boxes are a great idea. Novelty cardboard money collection boxes stand out from the rest and ensure better donation rates for your cause.

You can of course design fun money boxes for marketing campaigns – marketing with a difference will capture attention! Persuading people to part with their hard earned cash is getting more and more difficult and you need to encourage them to choose wisely and donate to your charity as a preferred choice.

These days every charity appeal is finding it harder and harder to extract money from people; everyone is feeling the pinch at the moment which is why it is imperative to have a dynamic edge. The pop-up cardboard money collection boxes are guaranteed to draw attention to a fund raising campaign. Pop up mailers, also known as 3D mailers are normally powered by an elastic band inside and are designed to grab attention upon opening. For advertising with a twist these can be sent out as a “swear box” or “collect a penny a day for your chosen charity” and is a fabulous marketing tool that keeps a charity in focus on a daily basis.

# Sample Questions

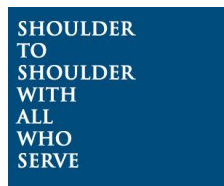
## Section A

Answer this question in the spaces provided.

Question 1 is about flat pack charity collection boxes.

You are advised to spend about 30 minutes on this question.

1. The Royal British Legion is marking the centenary of the first battle of the Somme, one of the bloodiest battles in human history, which took place between 1 July and 18 November 1916. The images below are associated with their charity drive.



1 (a) Designers often refer to the 5 P's of packaging. Which of the list below is one of the 5 P's? Tick **one** box only.

[1 mark]

Principle

Portraying

Promotion

Presenting

Primary

Priority

**1 (b)** The Royal British Legion is organising a national competition for schools to design and manufacture a prototype charity collection box to highlight the centenary of the first battle of the Somme.

The table below gives four areas of research that you will have to carry out before you start designing.

The details of one of these areas have been completed for you.  
Complete the table by giving details of the three other areas of research.

**[6 marks]**

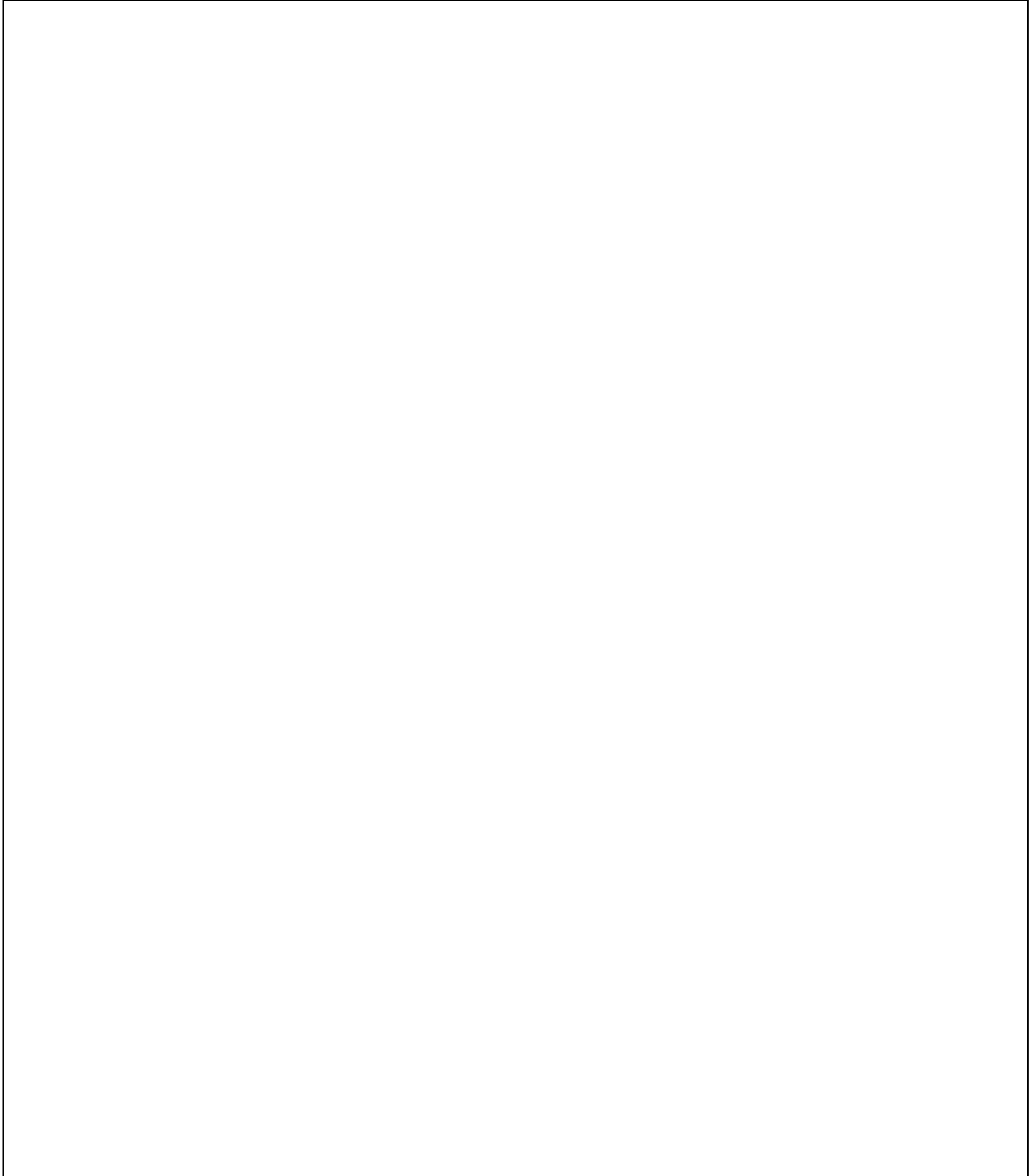
<b>Research Area</b>	<b>Explanation</b>
<b>Target Market</b>	<p>The charity collection box has to appeal to a broad range of individuals. It may be useful to conduct some market research into the type of individual who contributes to charity and/or the type of individual who a collection box could be posted out to.</p>
<b>Existing Products</b>	<p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p>
<b>Ergonomics</b>	<p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p>
<b>Materials and Components</b>	<p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p>

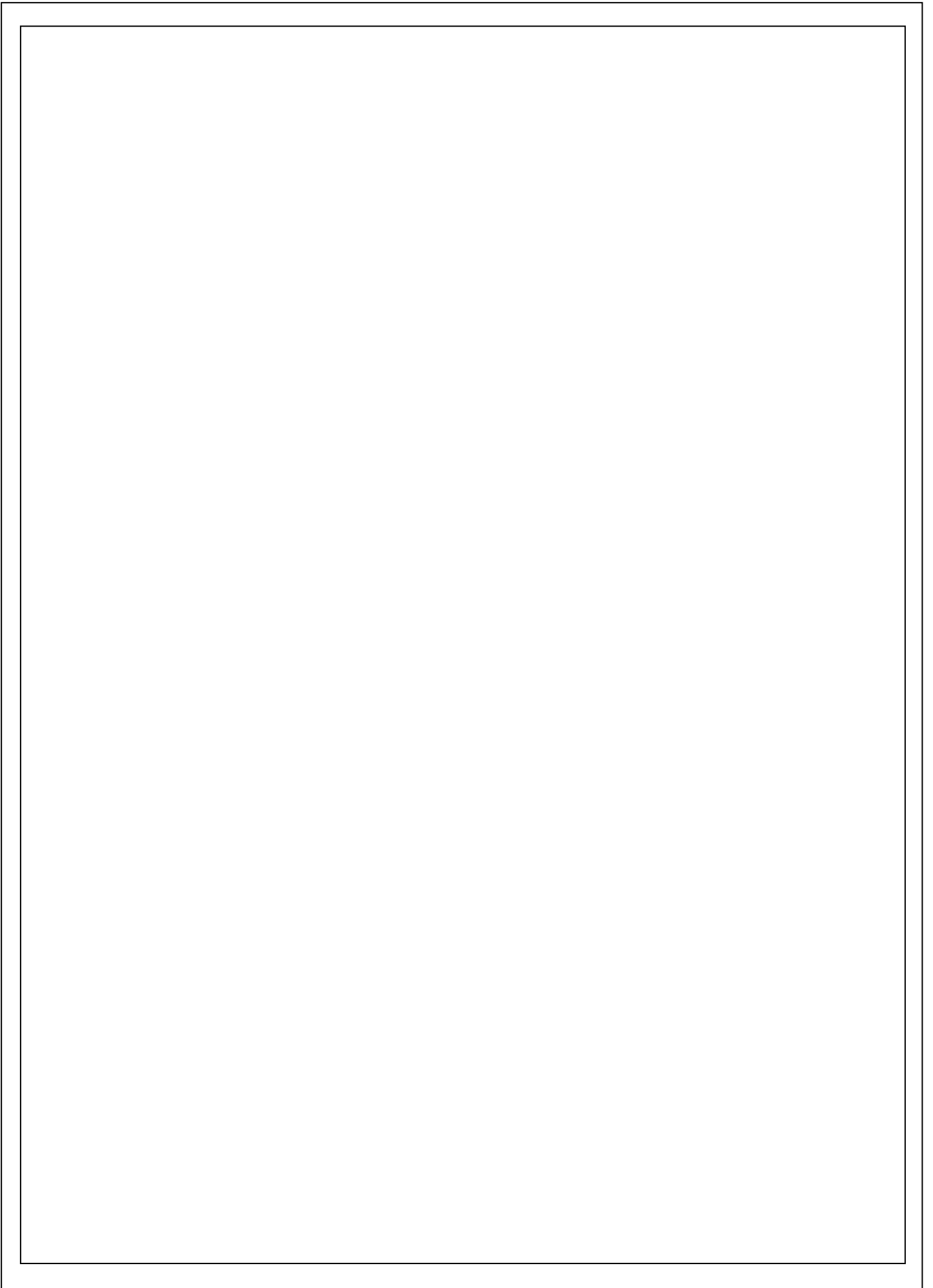
**1 (c)** In the space below and opposite use notes and sketches to design a pop-up charity collection box for the Royal British Legion.

Marks will be given for:

- A creative product which reflects the brand of the Royal British Legion
- A creative product which reflects the theme of the collection: the centenary of the first battle of the Somme
- Materials and construction details
- Finish and decoration of the product using colour and tone

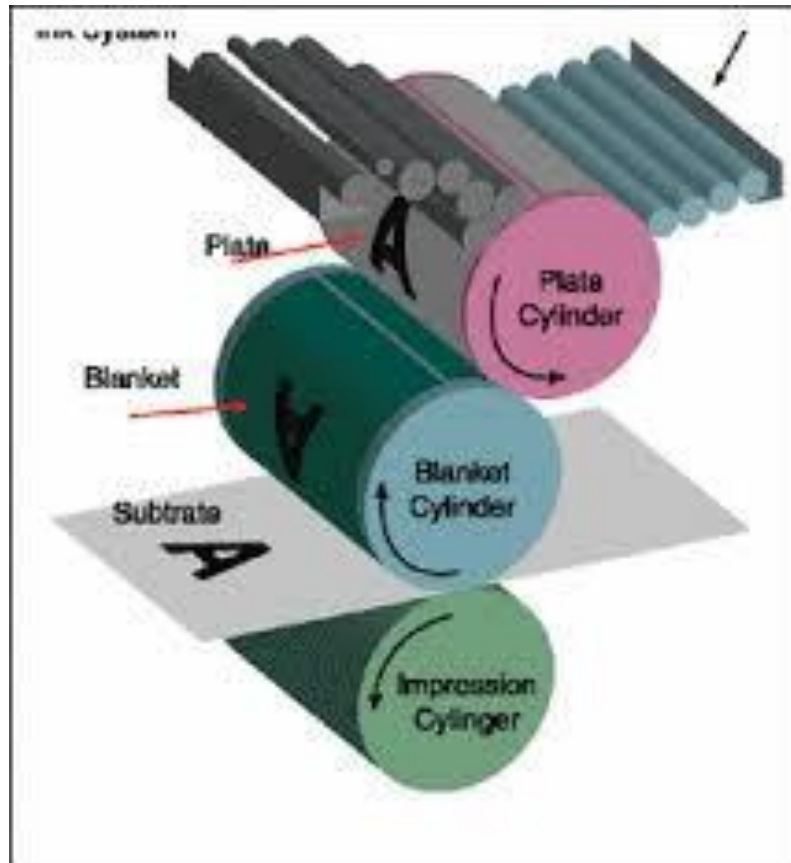
**[15 marks]**





1 (d) The primary process for printing pop-up charity collection boxes is lithography.

The diagram below shows the main stages of the process.



Describe this printing process.

[6 marks]

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## Section A

Answer this question in the spaces provided.

Question 1 is about flat pack charity collection boxes.

You are advised to spend about 35 minutes on this question.

1. The Syrian refugee crisis is on-going; it is particularly difficult for children. Save the Children have launched a crisis campaign to raise funds so that they can deliver food, clean water and life-saving medicine to children who desperately need it. The images below are associated with the charity and the crisis.



1 (a) Designers often refer to the 5 P's of packaging. Complete the table below gives some of the functions of packaging. Explain why each function is necessary.

[6 marks]

Function	Explanation
<b>Protect</b>	The packaging (charity collection box) should protect the contents from being damaged, or lost.
<b>Promotion</b>	<p>.....</p> <p>.....</p>
<b>People</b>	<p>.....</p> <p>.....</p>
<b>Place</b>	<p>.....</p> <p>.....</p>



**1 (b)** The charity collection box you design must take into account environmental and sustainability considerations.

Explain the meaning of:

Recycle .....

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[2 marks]

Recyclable .....

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[2 marks]

Recycled .....

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[2 marks]

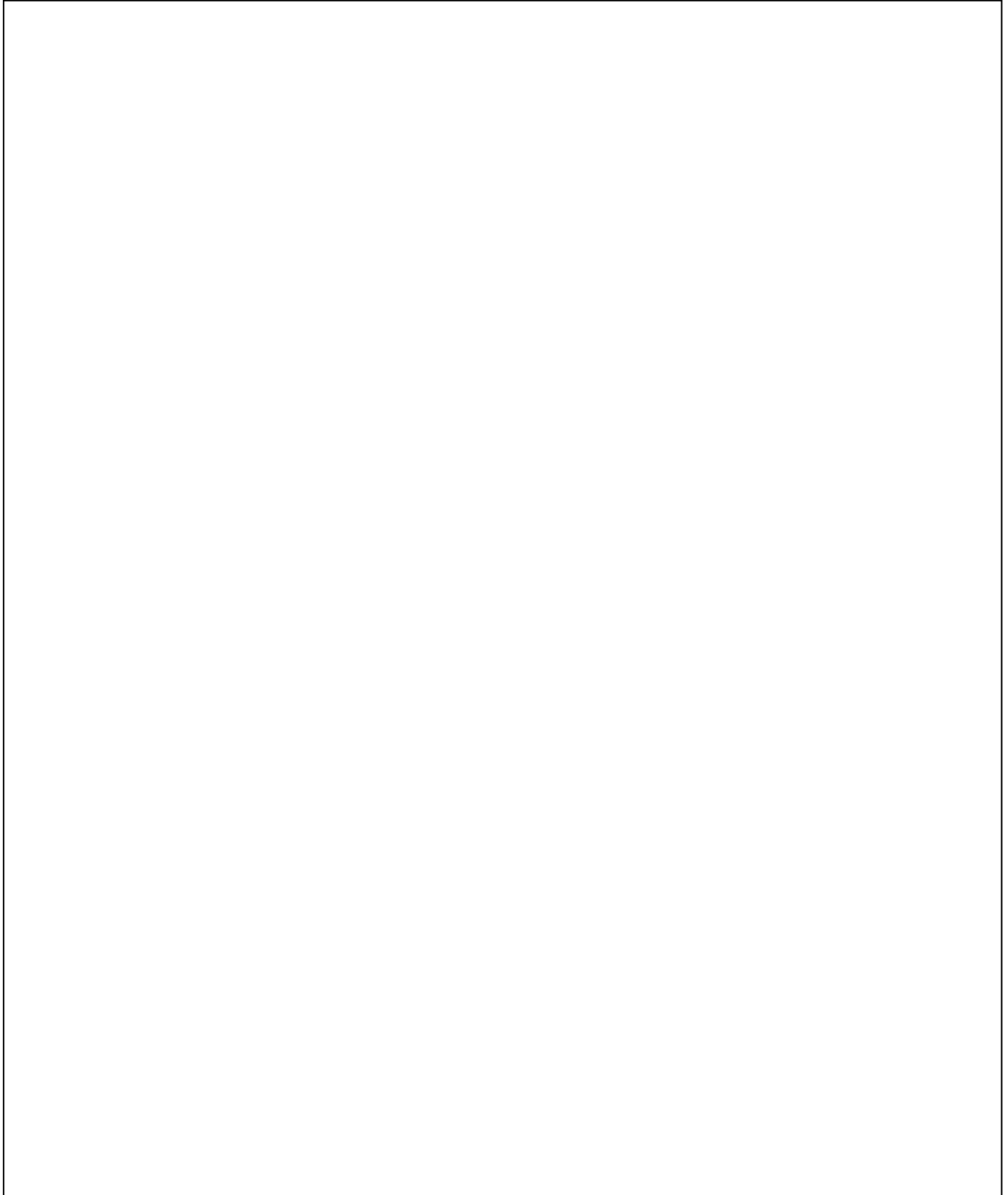
**Question 1 continues on the next page.**

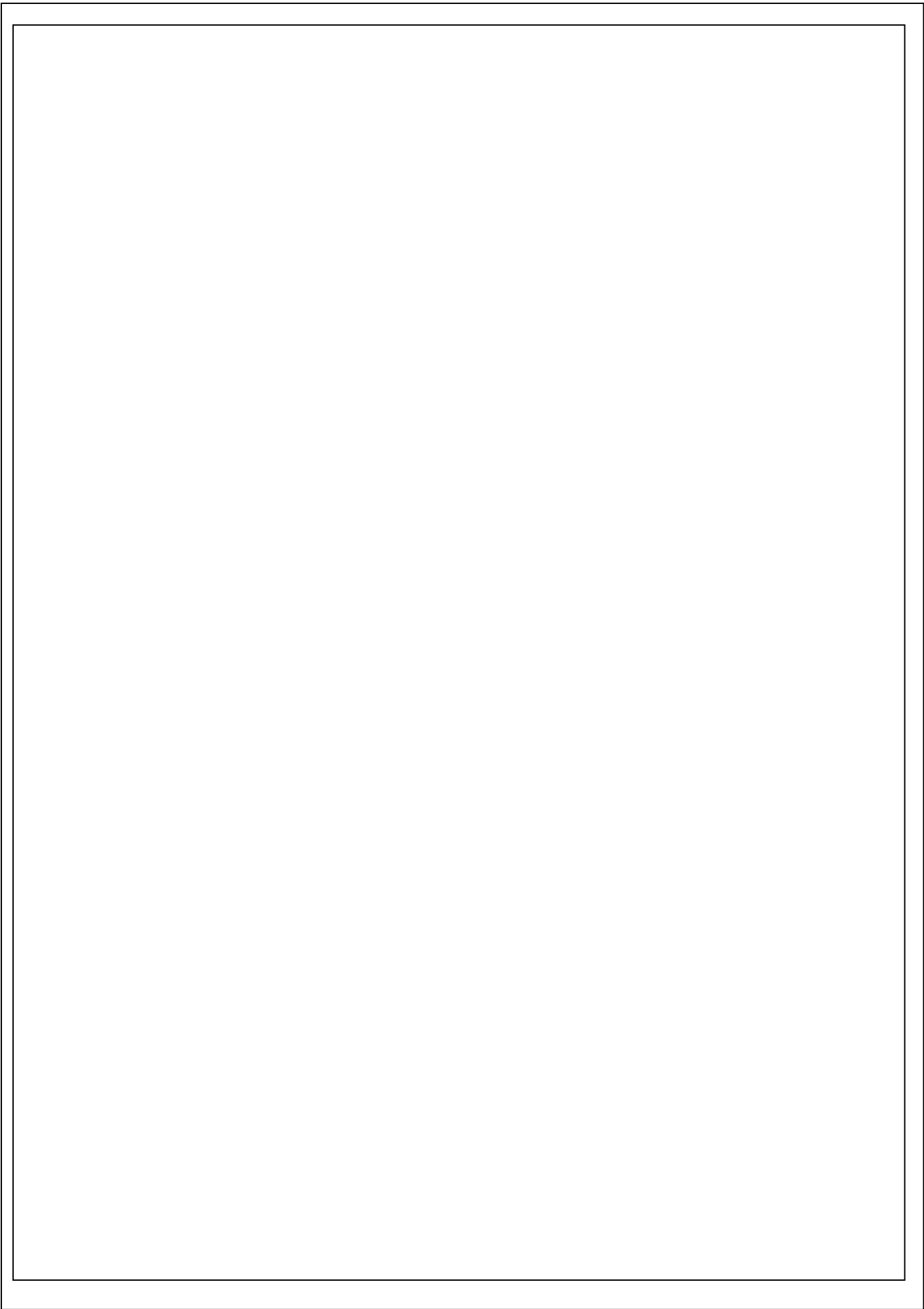
**1 (c)** In the space below and opposite use notes and sketches to design a pop-up charity collection box for Save the Children Syrian refugee crisis campaign.

Marks will be given for:

- A creative product which reflects the brand of Save the Children
- A creative product which reflects the theme of the charity campaign
- Materials and construction details
- Finish and decoration of the product using colour and tone

**[15 marks]**







**Section B**

Answer all the questions in the spaces provided

Question 2 is about product analysis and manufacturing products.

You are advised to spend about 20 minutes on this question.

**2** The photograph show a dining chair.



**2 (a) i** Name a specific material suitable for the seat of the chair.

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**[1 mark]**

**2 (a) ii** Explain in detail why the material you named in part (a) i is suitable for the seat of the chair.

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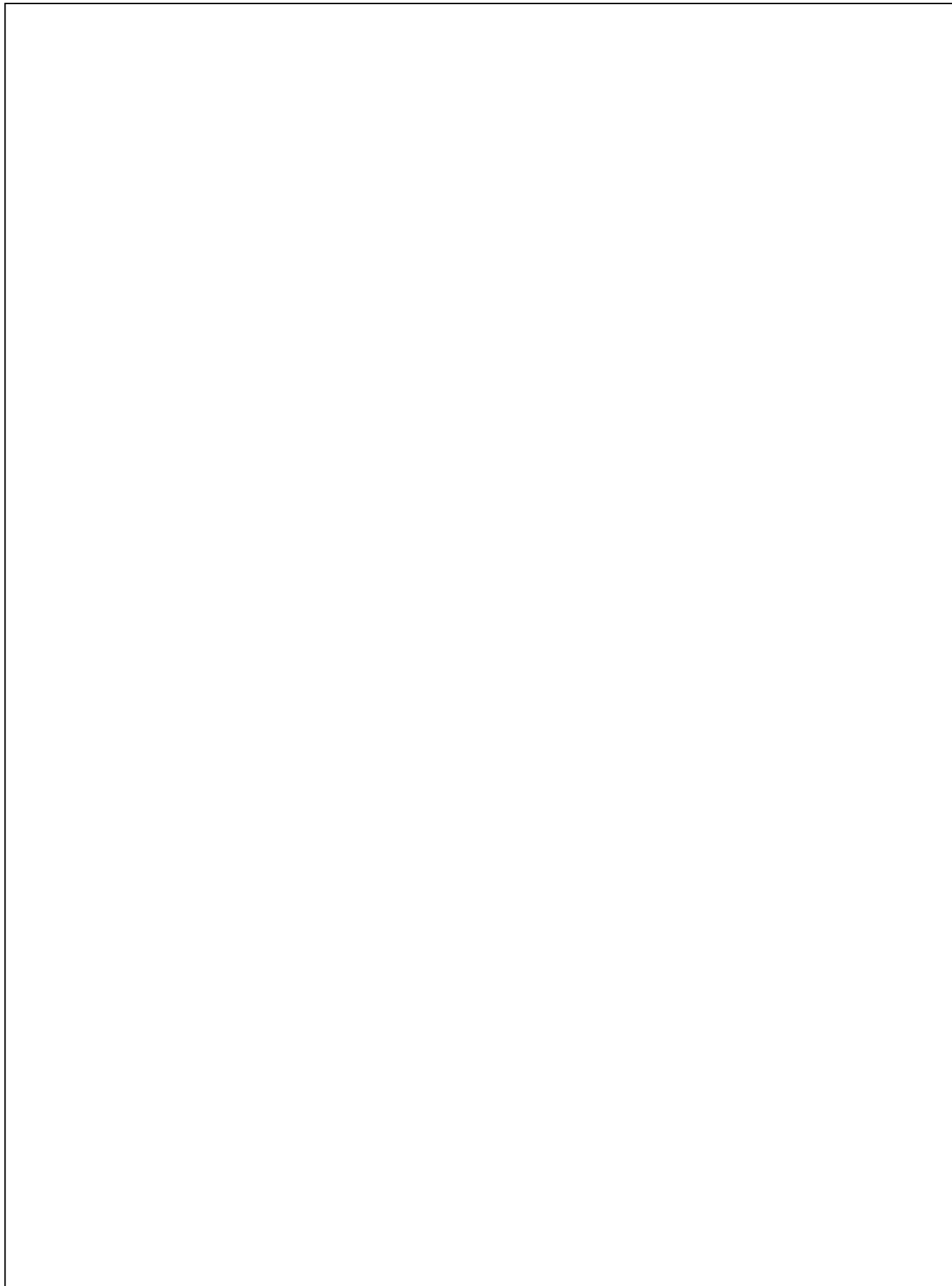
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**[4 marks]**

**2 (b)** Use notes and sketches to describe the most appropriate method for manufacturing the **whole** dining chair (seat and legs).



[10 marks]

**2 (c)** Describe in detail an appropriate method of finishing the **seat** of the chair. In your answer you should refer to a specific finish **and** explain why it is suitable.

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**[5 marks]**

<b>20</b>

Question 3 is about materials, manufacturing, human factors and sustainability

You are advised to spend about 25 minutes on this question.

**3** The photographs show a toy aged 4 years and older.



**3 (a) i** Name a specific polymer suitable for the outer casing of the toy.

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**[1 mark]**

**3 (a) ii** Explain in detail why the polymer you named in part (a) i is suitable.

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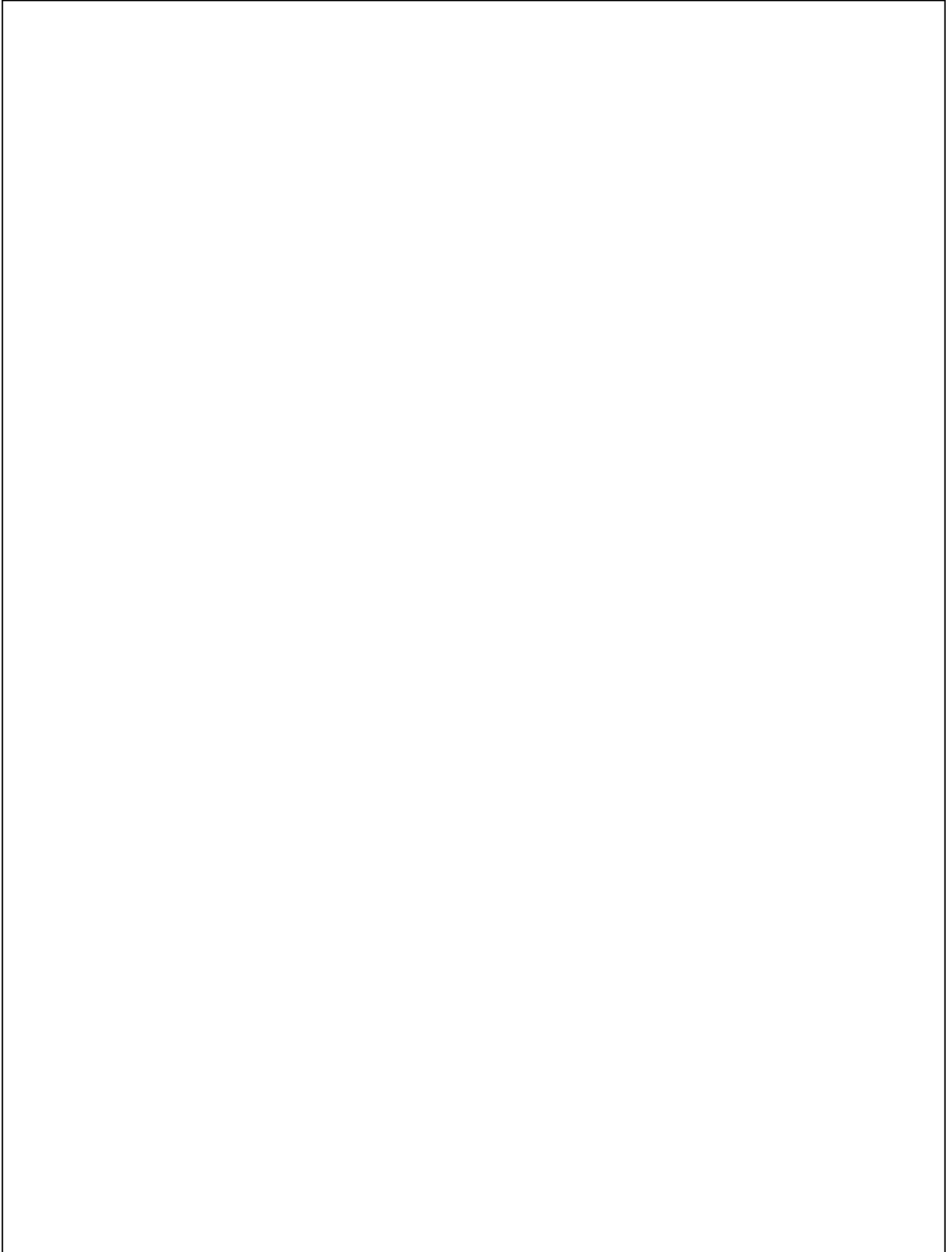
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**[6 marks]**



**3 (b)** The outer casing of the toy has been injection moulded.

Use notes and sketches to describe this process.



**[8 marks]**

**3 (c) i** The manufacturer wants the toy to be as environmentally friendly as possible. Describe how the manufacturer can make the toy environmentally friendly.

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**[4 marks]**

**3 (c) ii** Explain the symbol



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**[3 marks]**

**3 (c) iii** Explain the term **non-renewable** resource.

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**[2 marks]**

**3 (d)** The aesthetic and functional features of the toy could be enhanced by using smart materials. Explain how.

You may use diagrams to support your answer.

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[6 marks]

<b>30</b>