

SAMPLE GRAPHIC PRODUCTS

GCSE EXAMINATION PAPER

CENTRE NUMBER

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CANDIDATE NUMBER

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SAMPLE PAPER1

SURNAME _____

FORENAME(S) _____

CANDIDATE SIGNATURE _____

2 HOURS ALLOWED

Materials required for this examination:

- normal writing and drawing instruments
- a calculator
- a protractor.

Instructions to candidates:

- Use black ink or black ball-point pen. Use pencil only for drawing.
- Fill in the boxes at the top of this page.
- Answer **all** questions.
- You must answer the questions in the spaces provided. Do not write on blank pages.
- Do all rough work in this book. Cross through any work that you do not want to be marked.

Information

- The marks for the questions are shown in brackets.
- The maximum mark for this paper is 125.
- Section A relates to the context given in the Preliminary Material that was previously issued. **35 marks** Section B - **90 marks**
- You are reminded of the need for good English and clear presentation in your answers. Quality of written communication will be assessed in Question 4 (a).

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SECTION A

This section is concerned with designing

Section A is about designing

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

Design Theme: FANTASY PAPER TOY CHARACTERS.

Look at the Design Brief and Design Criteria below.

Design Brief

A manufacturer of a new breakfast cereal, has asked you to design a Fantasy Paper Toy Character, that can be cut out of a paper/card template and folded to form a three dimensional character (a free promotional gift)



Design Criteria

You have been asked to design a fantasy paper toy character, which will be a free promotional gift, placed inside the packaging or printed on the back of the package, ready for cutting out.

The graphics must:

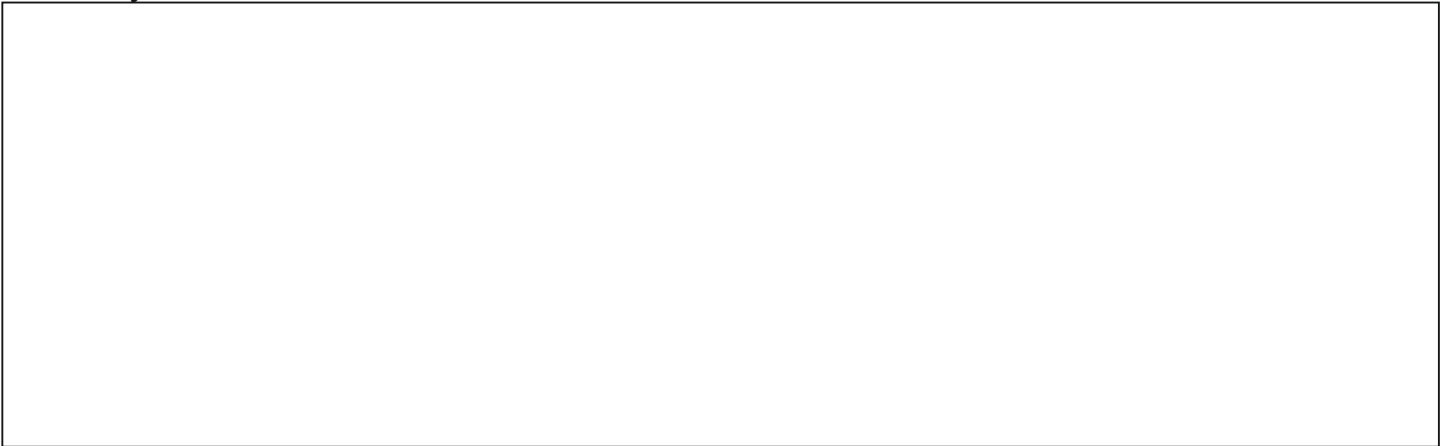
- be based on a 'Party / fun theme', with any text in a suitable letter style (typeface)
- display colourful images of **party / fun** characters, suitable for young children.
- appeal to children.

TO HELP YOU ANSWER THIS QUESTION, FOLLOW THE LINKS

<http://www.technologystudent.com/grp09/styles1.html>
<http://www.technologystudent.com/grp09/typo1.html>
<http://www.technologystudent.com/grp09/styles2.html>

1. The Fantasy Characters should be designed to emphasise fun / a party theme. In the two spaces below, design two styles of writing for the term 'Party Time'. Party Time will be prominently displayed on the cereal packaging. **Do not add colour, as this question is concerned with producing a basic outline design. 2 x 2marks**

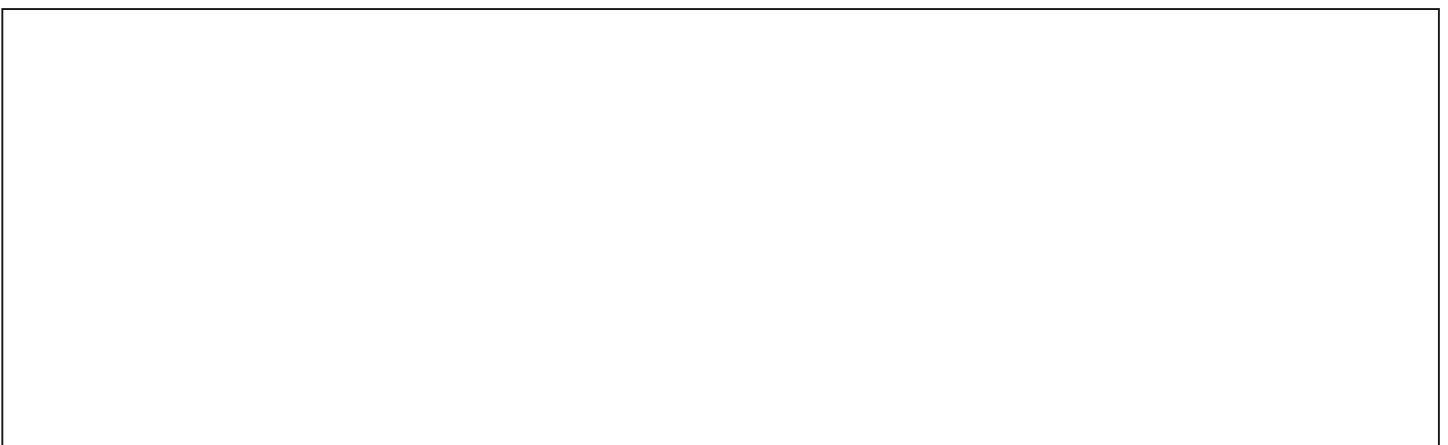
1a. Party Time



1b. Party Time



1c. Select your best outline design and draw it below, adding suitable colour and shade. **4 marks**



TO HELP YOU ANSWER THIS
QUESTION, FOLLOW THE LINKS

<http://www.technologystudent.com/despro2/toy4.html>
<http://www.technologystudent.com/despro2/toy5.html>
<http://www.technologystudent.com/despro2/toy6.html>

1d. In the four spaces below, draw four BASIC designs, for a suitable fantasy paper toy character, that could be developed into a folding 3D form. **4 x 2 marks**

TO HELP YOU ANSWER THIS
QUESTION, FOLLOW THE LINKS

<http://www.technologystudent.com/despro2/toy4.html>
<http://www.technologystudent.com/despro2/toy5.html>
<http://www.technologystudent.com/despro2/toy6.html>

1e. Using the design criteria below, produce a series of annotated sketches, to show how **ONE** of your characters, can be developed into a character, that can be folded to form a 3D shape.

Design Criteria

The graphics must:

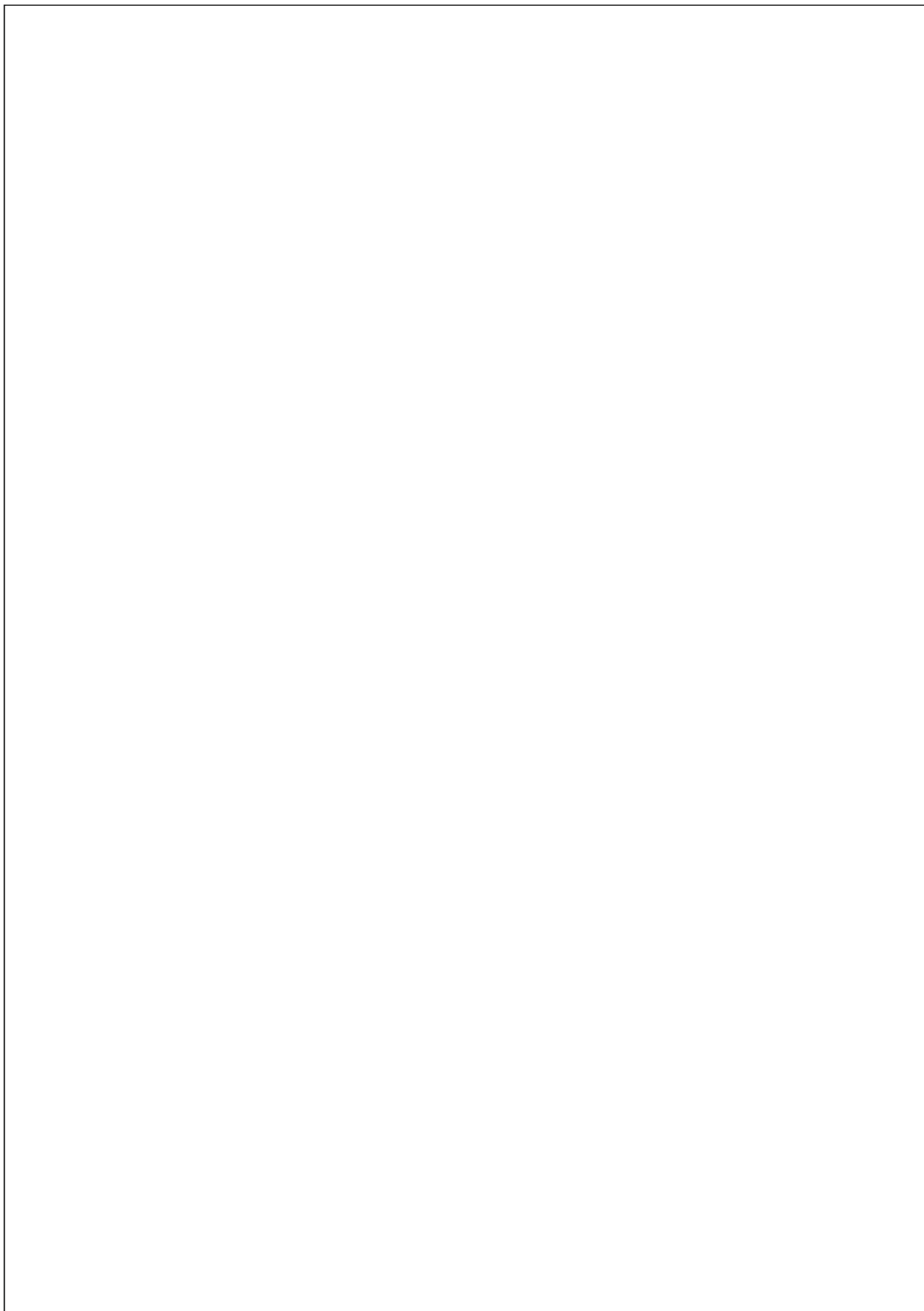
- ensure that the fantasy character represents the theme 'party' / 'fun'
- include a suitable colour scheme that supports the party / fun theme.
- your chosen character must appeal to children.
- show clearly detail of the net(s) / development(s) that are folded to form the final character.

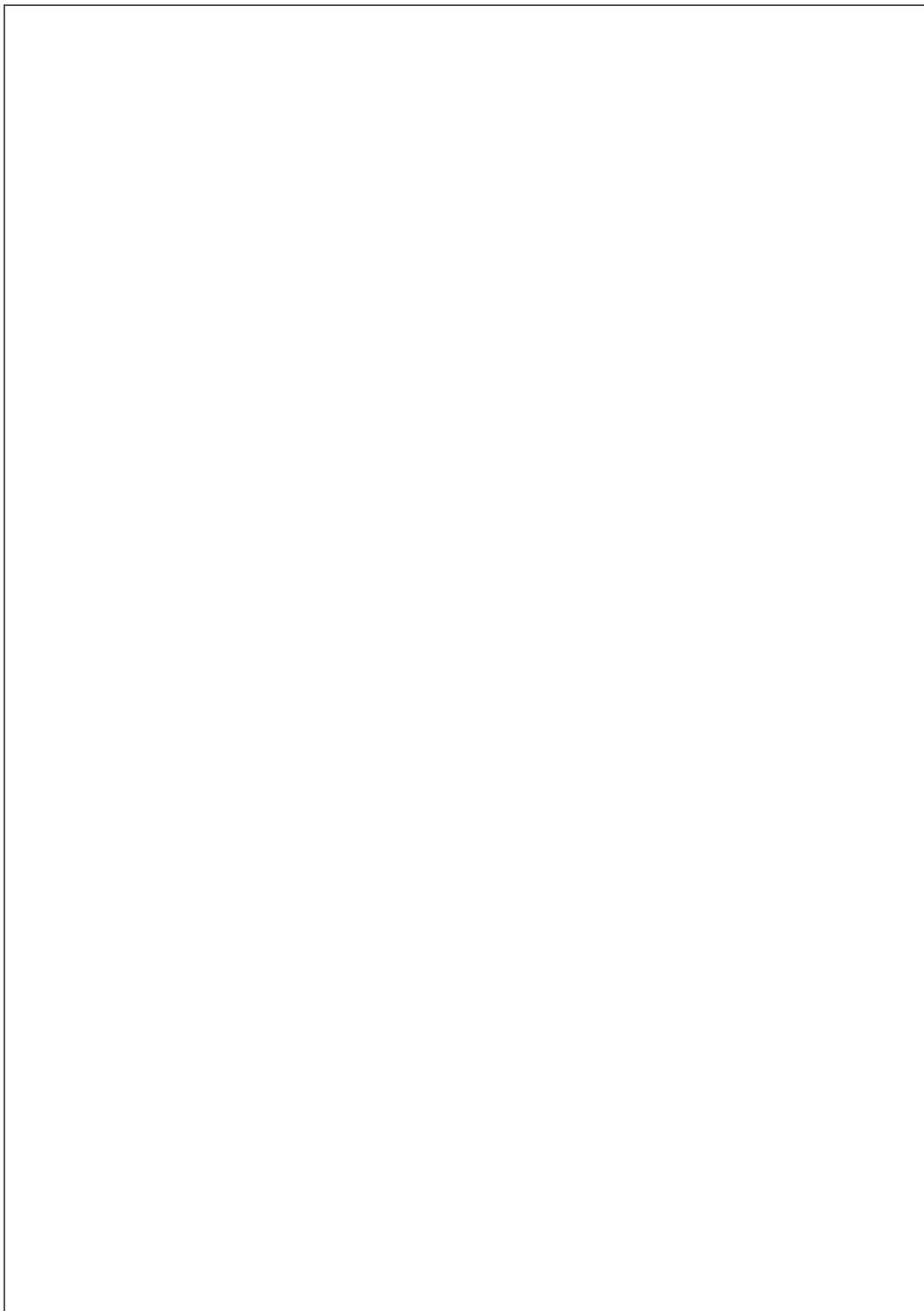
Marks will be awarded for:

- effective application of the design criteria
- creativity, imagination, originality and quality of the development, including an indication of colour
- notes explaining your sketches.

[11 marks]

Use the next two pages to develop your design.





TO HELP YOU ANSWER THIS QUESTION, FOLLOW THE LINKS FOLLOW THE LINKS ON EACH PAGE TO THE PDF FILES

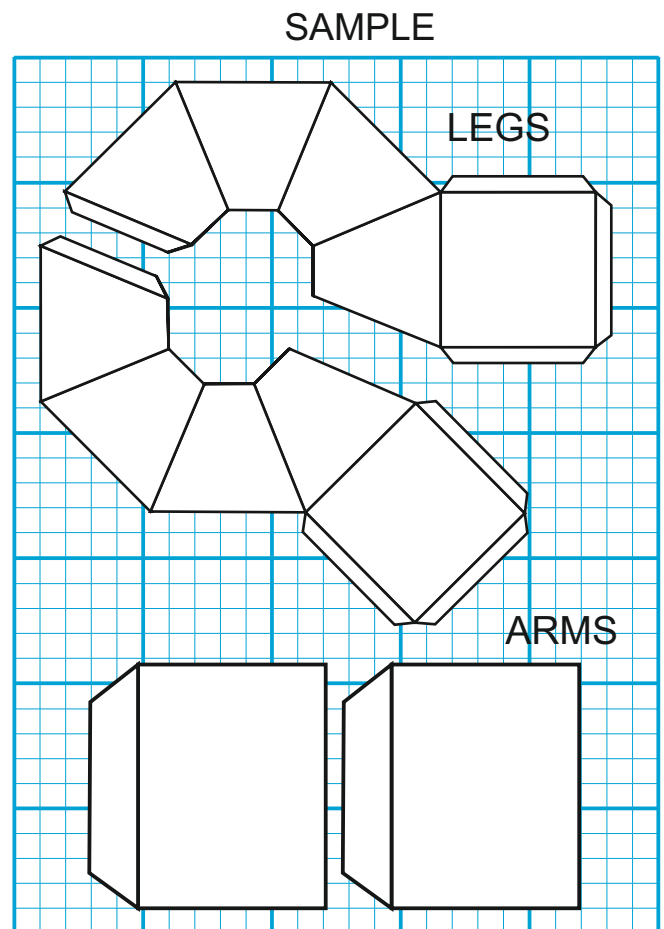
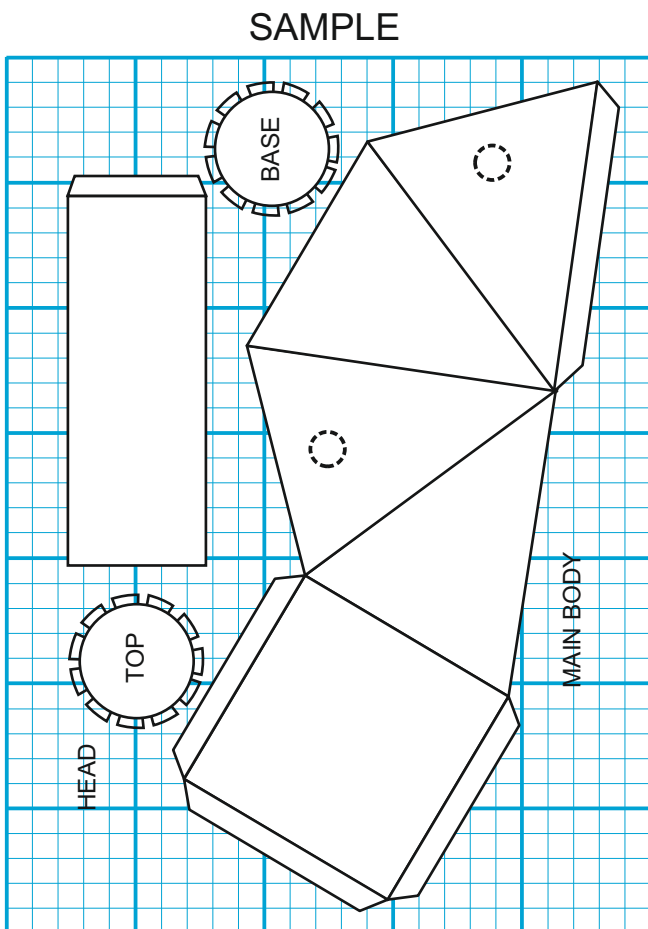
<http://www.technologystudent.com/despro2/toy4.html>
<http://www.technologystudent.com/despro2/toy5.html>
<http://www.technologystudent.com/despro2/toy6.html>

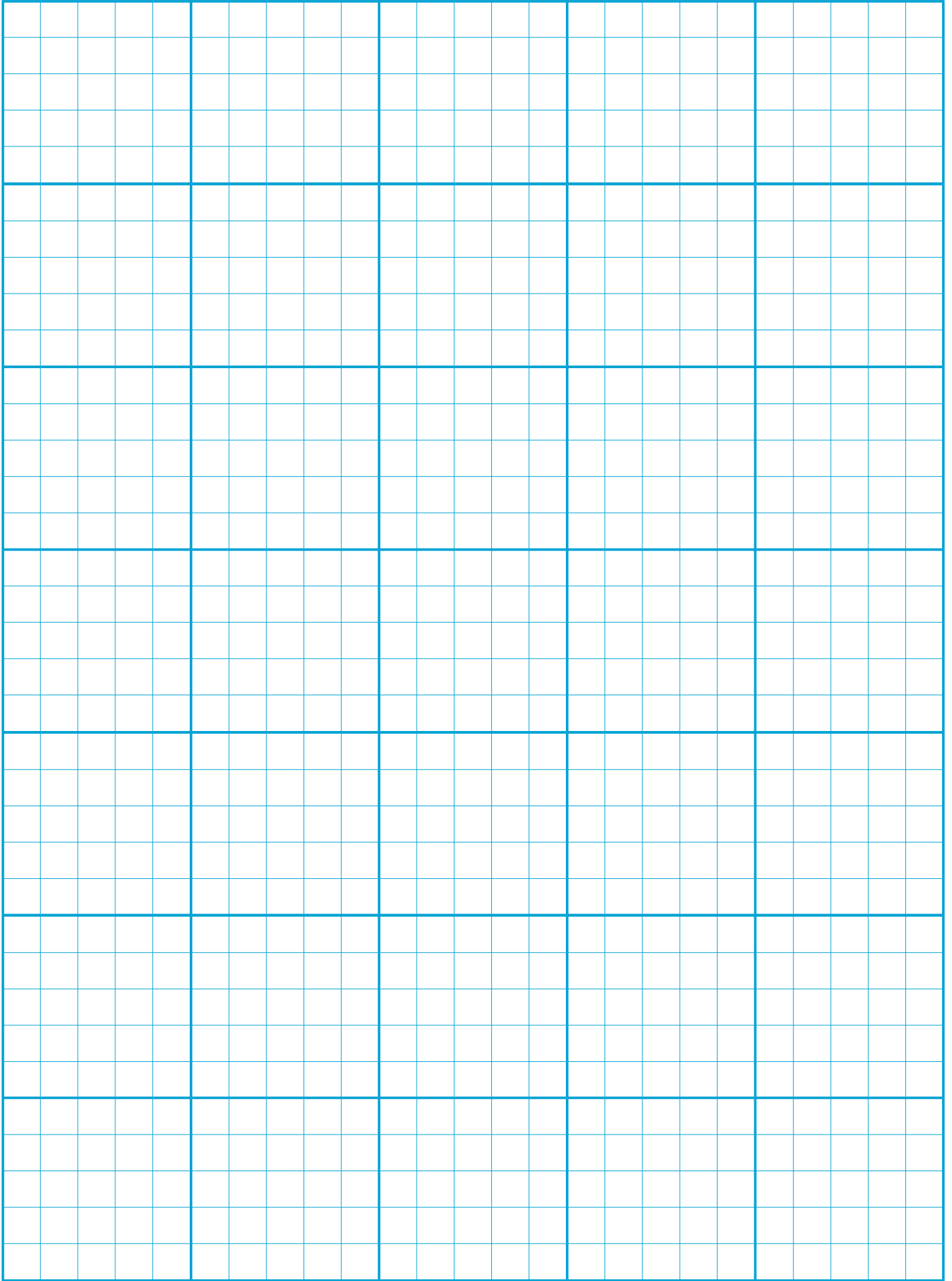
1f. The final development(s) / net(s) should be set out on paper / card ready for cutting out by a young child. Using the following pages, show how the development(s) / net(s) will be laid out to minimise waste. You have a maximum of two pieces of card to layout the net(s) / development(s) (you may need to use just one page, but two are available).

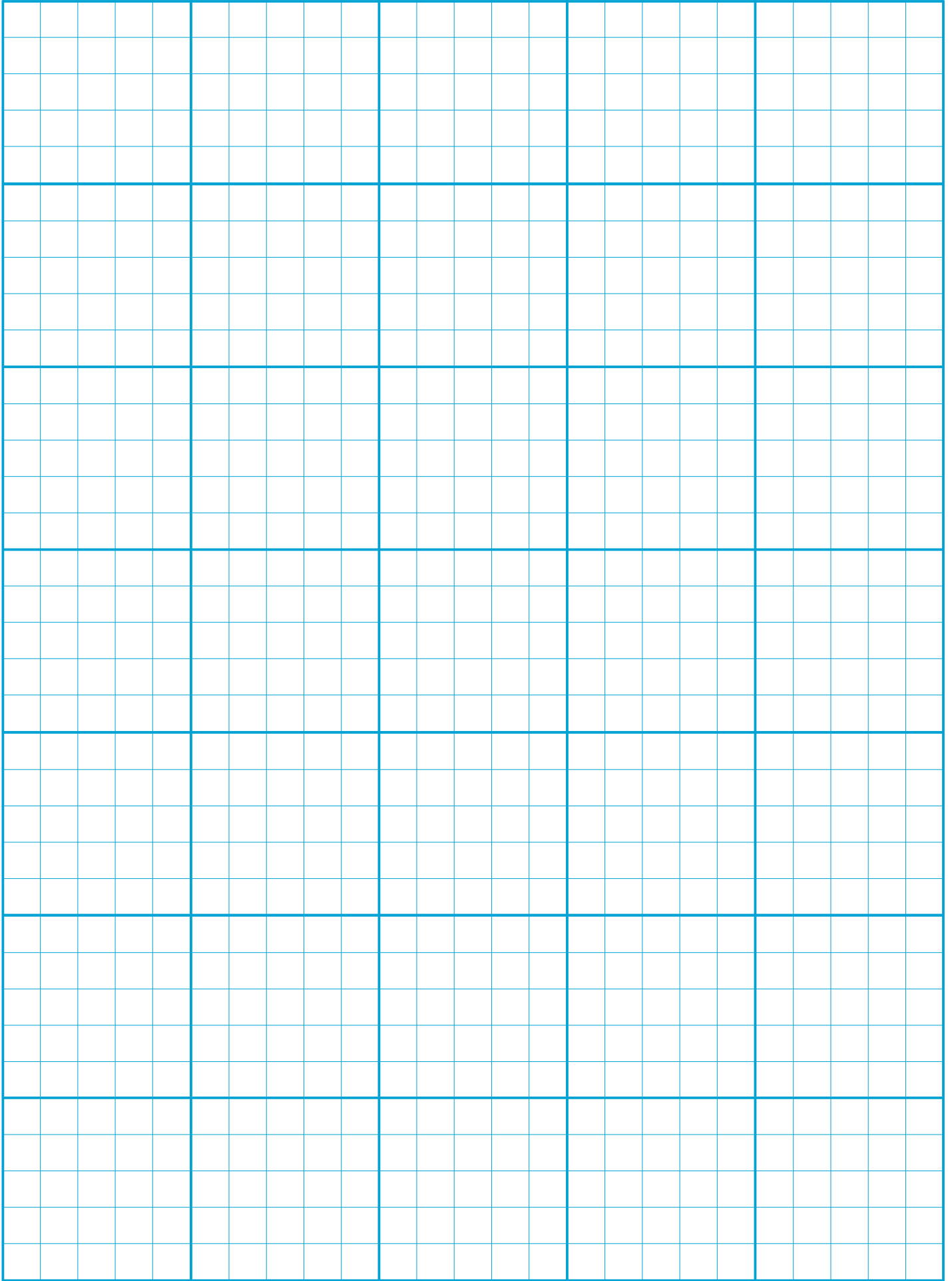
Use the next two pages to display the layout of your design.

Below is a sample layout.

Total of 5 marks







TO HELP YOU ANSWER THIS
QUESTION, FOLLOW THE LINKS

<http://www.technologystudent.com/despro2/toy7.html>

1g. Evaluate your final fantasy character and the layout to the card developments / nets, you have drawn, against the design criteria shown below.

- ensure that the fantasy character represents the theme 'party' / 'fun'
- include a suitable colour scheme that supports the party / fun theme.
- your chosen character must appeal to children.
- show clearly, detail of the net(s) / development(s), that are folded to form the final character, minimising waste.

3 marks

SECTION B

TO HELP YOU ANSWER THIS QUESTION Follow the link below.

http://www.technologystudent.com/despro_fish/smartphone1.html

WORLD ASSOCIATION OF TECHNOLOGY TEACHERS

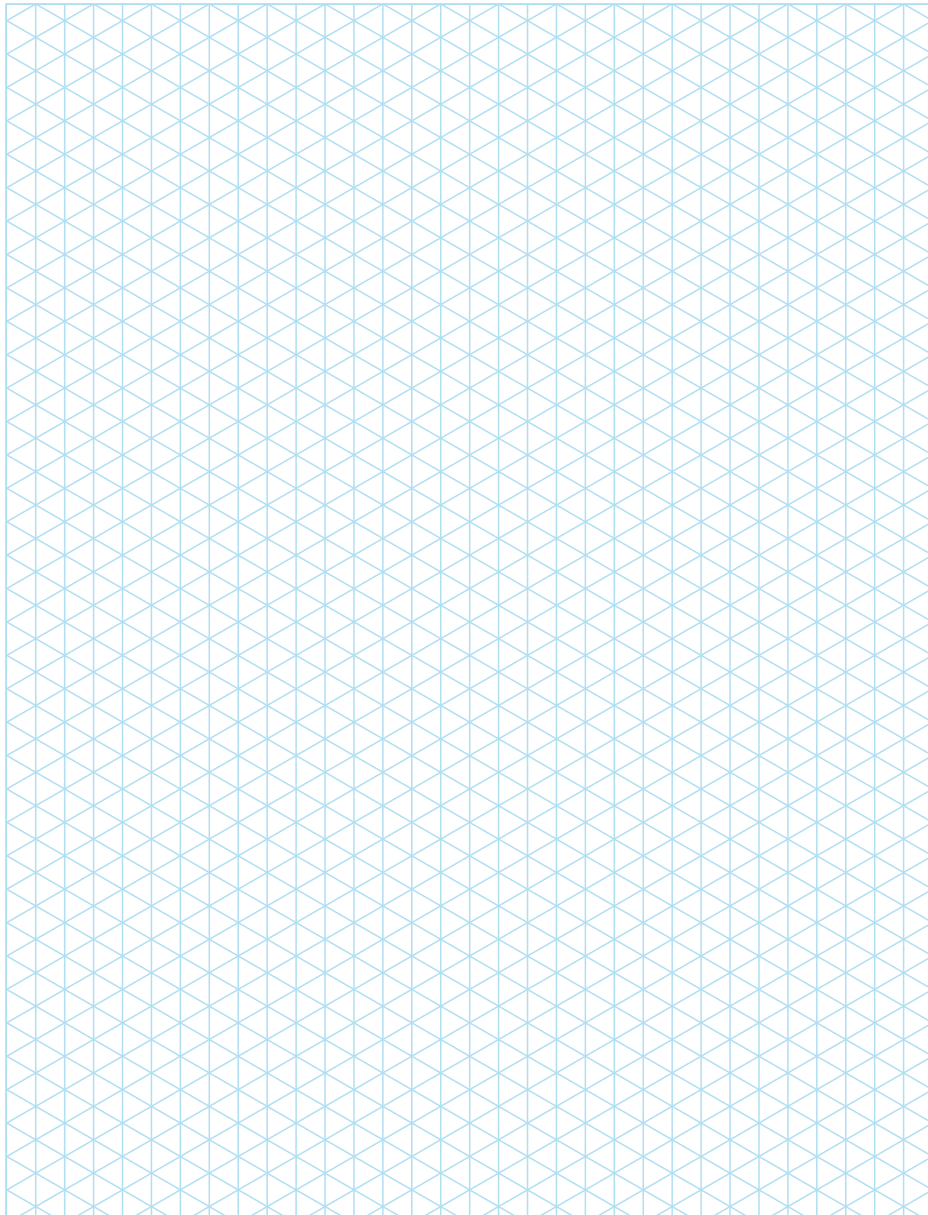
<https://www.facebook.com/groups/254963448192823/>

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2. Study the three views of the mobile phone seen opposite. Using the isometric grid at the bottom of the page, sketch an accurate 3D version.

Add realistic colour and detail.

8 marks



TO HELP YOU ANSWER THIS QUESTION Follow the links below.

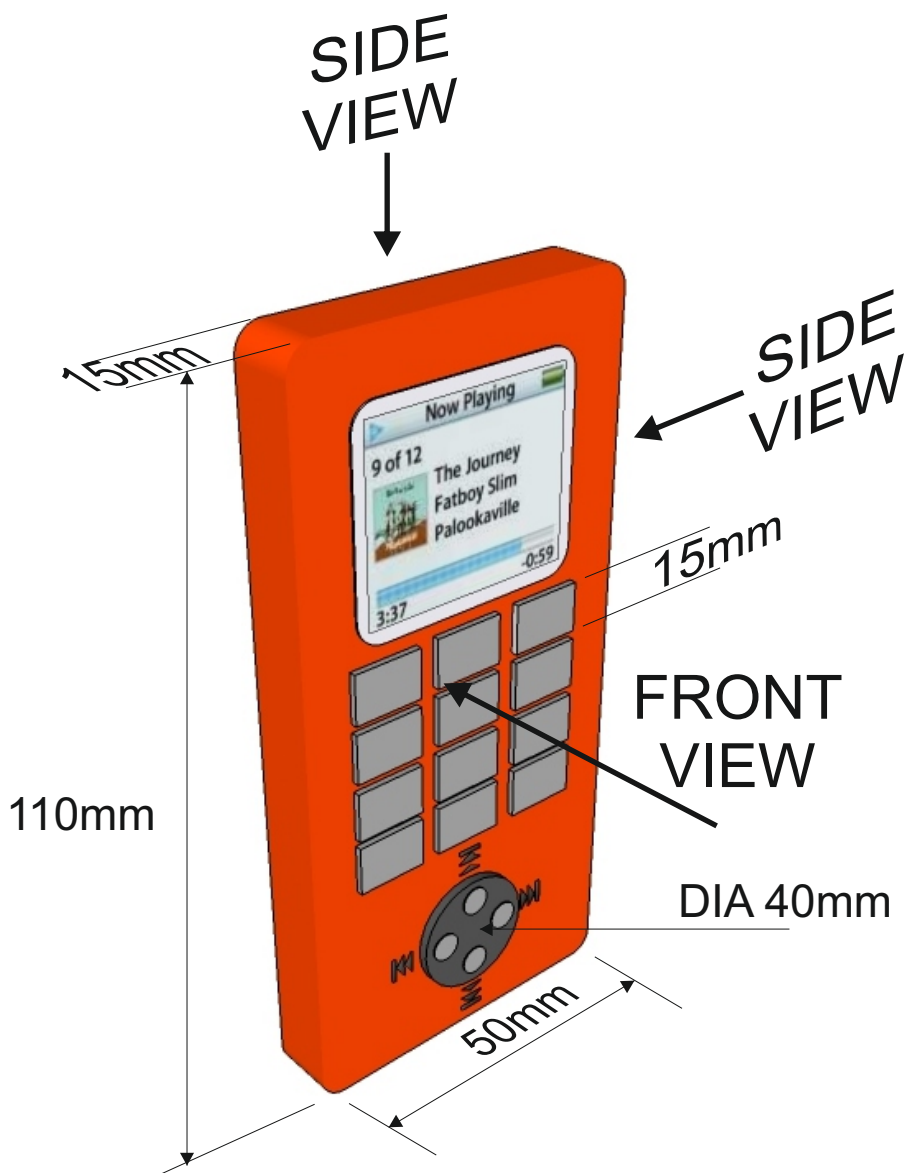
<http://www.technologystudent.com/gprep07/phortho4.html>
<http://www.technologystudent.com/gprep07/phortho11.html>

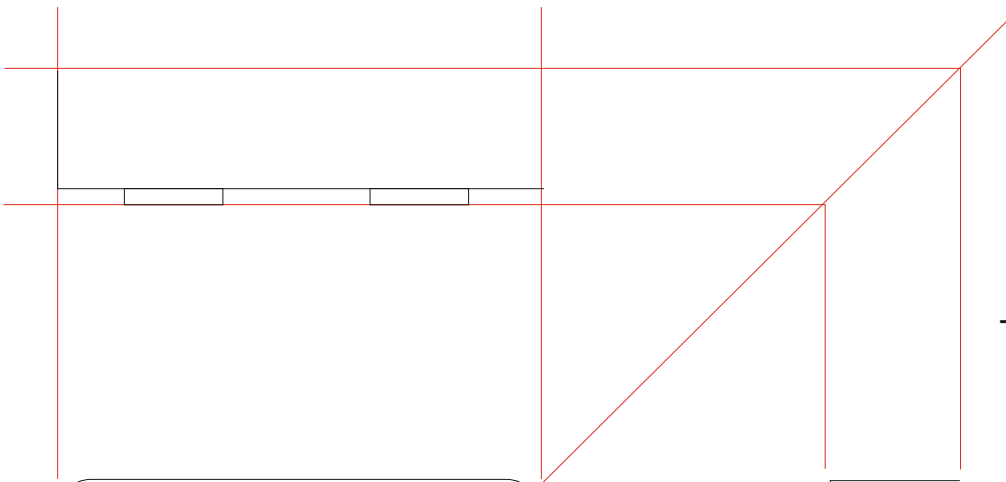
3. A RETRO media music device is shown below. This is drawn in perspective (3D).

A. Complete the orthographic drawing (on the next page) of the same media music device, in third angle orthographic projection. Show all your construction lines.

B. Add five dimensions

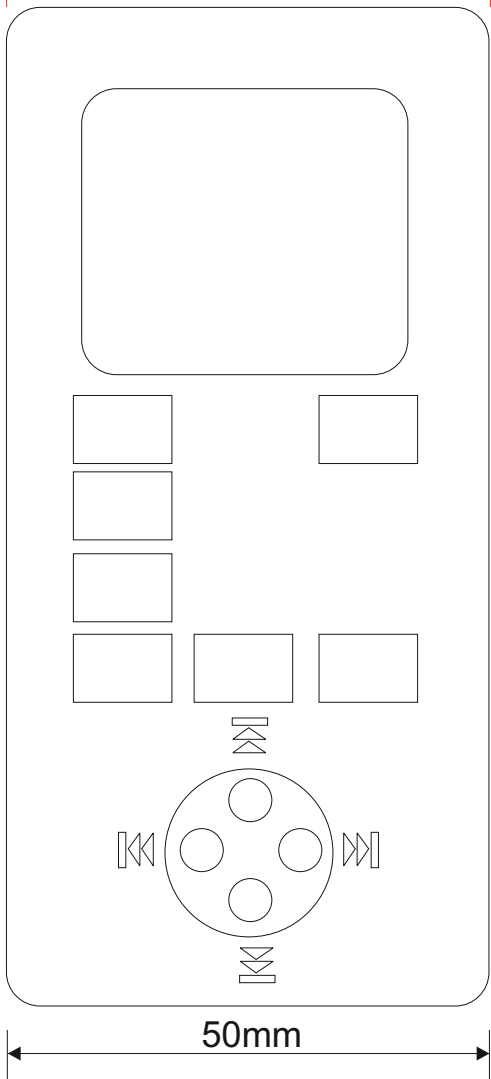
C. Add the symbol for third angle orthographic projection. **8 marks**





SCALE 2:1

THIRD ANGLE PROJECTION



TO HELP YOU ANSWER THIS QUESTION Follow the links below.

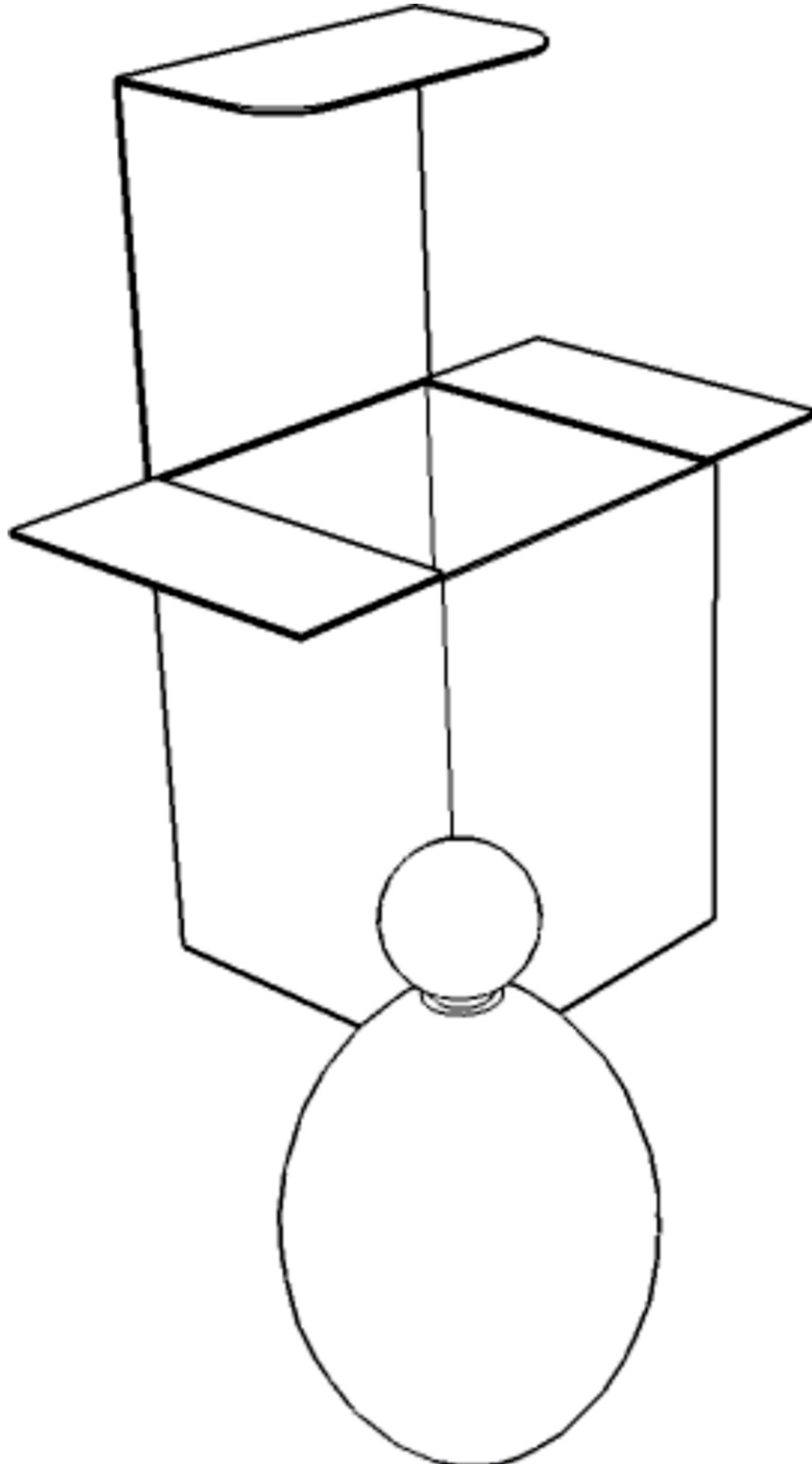
http://www.technologystudent.com/despro_f1sh/thick2.html

4. Below is the packaging and bottle for perfume.

Using coloured pencils:

Select a suitable colour and add thick lines, to emphasise the outline of the bottle and its packaging. *3 marks*

Add a series of thin coloured lines, to enhance the 3D effect. *6 marks*



TO HELP YOU ANSWER THIS QUESTION

Follow the link below.

<http://www.technologystudent.com/joints/photchrom1.html>

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<https://www.facebook.com/groups/254963448192823/>

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5a. Designers need an understanding of smart materials. Photochromic inks have many practical applications. What are photochromic inks? **2 mark**

5b. Describe two practical applications of photochromic inks. **2 x 3 marks**

PRACTICAL APPLICATION 1:

PRACTICAL APPLICATION 1:

6. Packaging has a range of important functions. Describe 2 functions, in detail, in the area below. **2 x 4 marks**

TO HELP YOU ANSWER
THIS QUESTION

Follow the links below.

www.technologystudent.com/despro2/packfn1.htm

FUNCTION 1:

FUNCTION 2:

TO HELP YOU ANSWER THIS QUESTION Follow the links below.

<http://www.technologystudent.com/despro2/estper1.htm>

WORLD ASSOCIATION OF TECHNOLOGY TEACHERS

<https://www.facebook.com/groups/254963448192823/>

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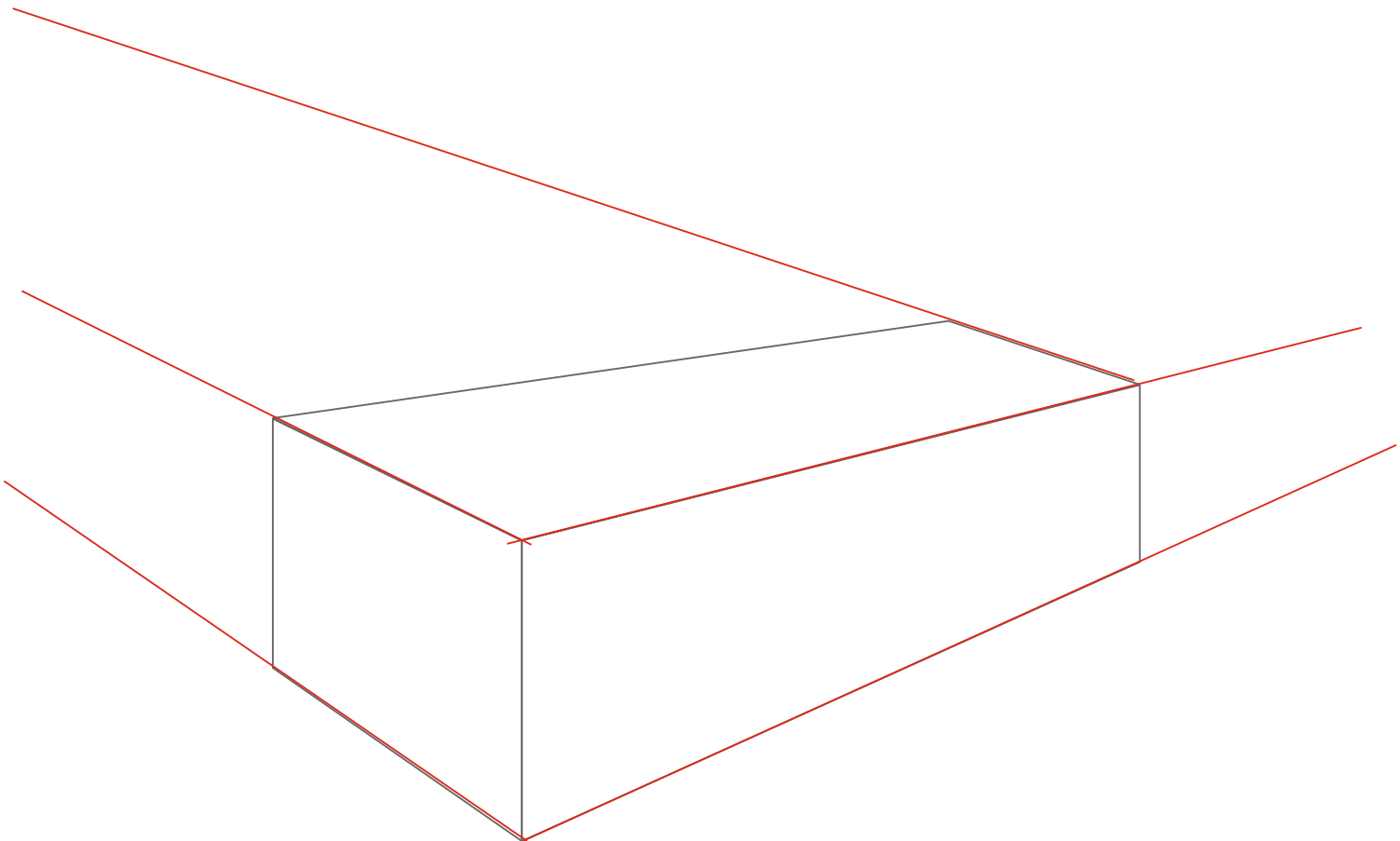
7. This is a simple pencil sharpener.

An two point perspective drawing of the sharpener has been started below.

Complete the outline of the sharpener.

3 marks

Add appropriate pencil shading, to enhance the final finish. **3 marks**



TO HELP YOU ANSWER THIS QUESTION Follow the link below.

<http://www.technologystudent.com/prddes1/qual1.html>
<http://www.technologystudent.com/prddes1/qual2.html>
<http://www.technologystudent.com/prddes1/quality1.html>

Designers need an understanding of Quality Control and Quality Assurance

8a. What is meant by the term Quality Assurance? **4 marks**

8b. What is meant by the term Quality Control? **4 marks**

TO HELP YOU ANSWER THIS QUESTION Follow the link below.

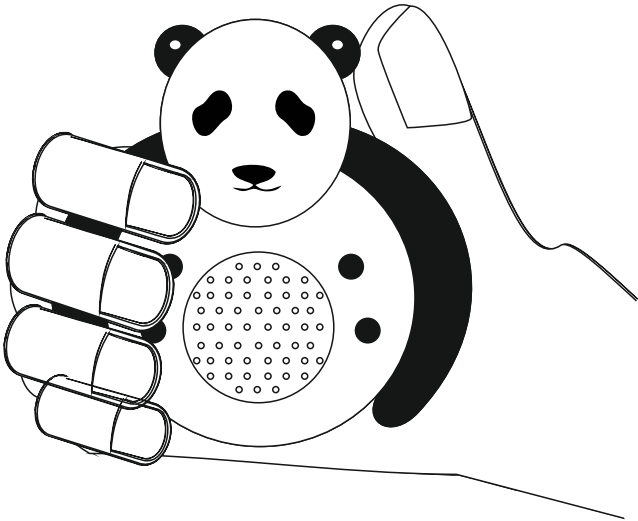
http://www.technologystudent.com/despro_flsh/evalintegr1.html

9a. Designers invest time and effort, testing and evaluating a prototype. Why do designers test and evaluate? **2 marks**

9b. Describe two features / aspects of a design, that designers evaluate. **2 x 3 marks**

Feature/aspect 1:

Feature/aspect 2:



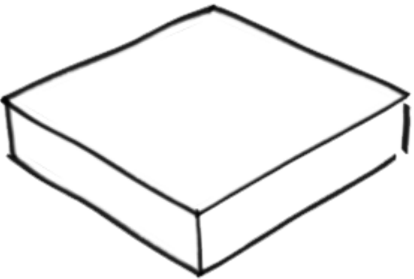

10. The design of a small handheld device is shown opposite.

Describe how it could be 'block modelled', as the next stage of the design process.

10a. SELECTED MATERIAL: _____ **1 mark**

10b. MATERIAL PROPERTIES: **(3 marks)** _____

Using the table / grid below, describe the stages involved in the 'block modelling' of the hand held electronic device seen above. The first stage has been completed for you. **10 marks**

STAGE - SKETCH	SKETCH OF TOOL	DESCRIPTION
	<p>Coping saw</p> 	<p>A block of _____ model board is cut to a suitable size, using hand tools (coping saw) or a fretsaw.</p>

STAGE - SKETCH

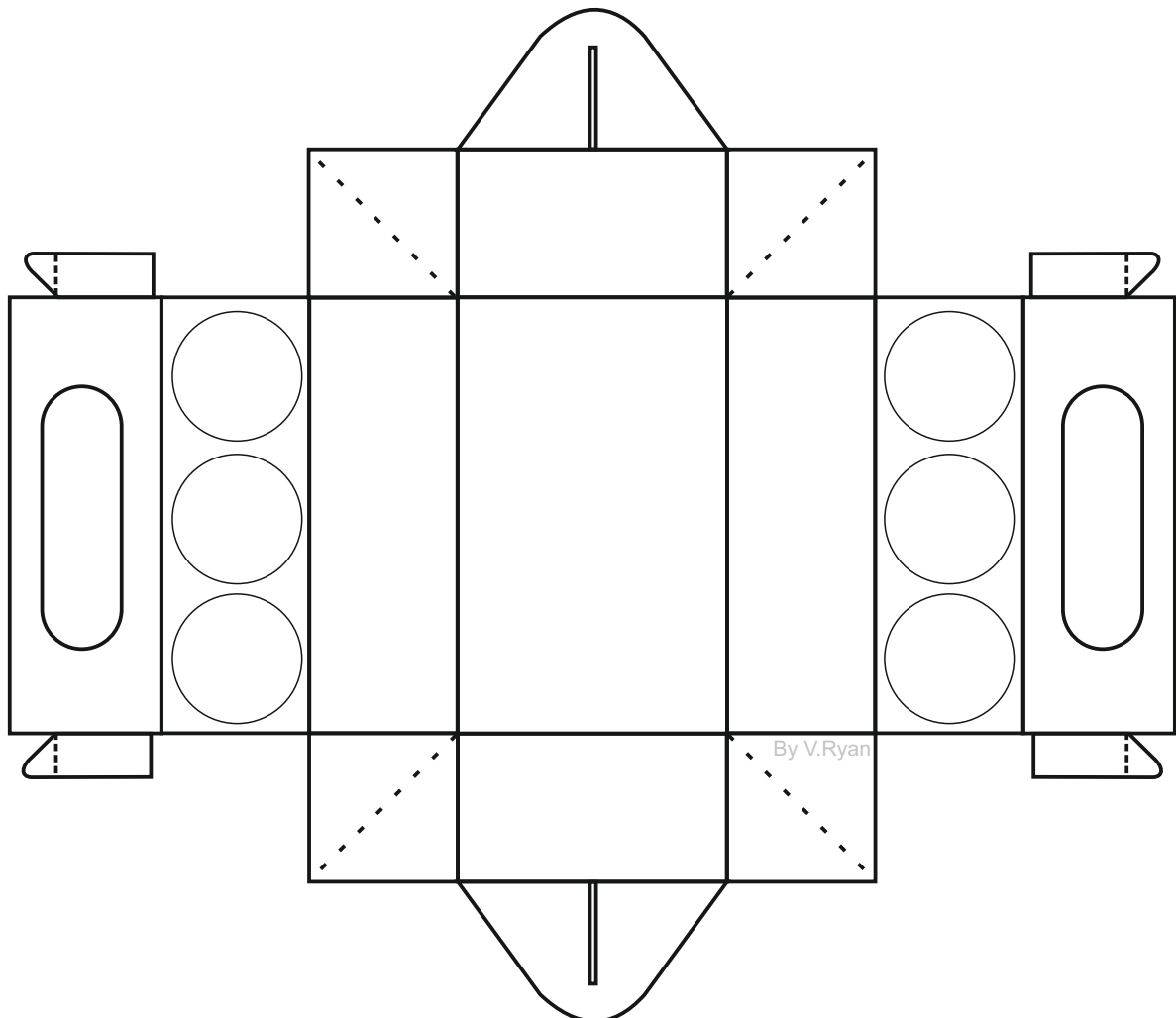
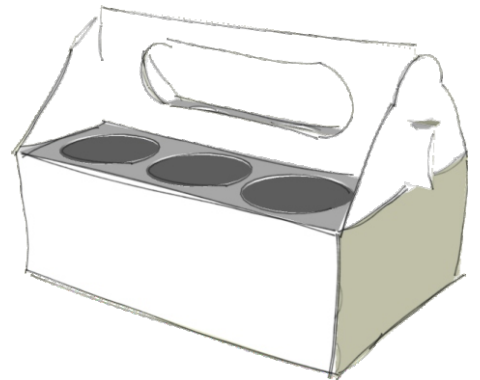
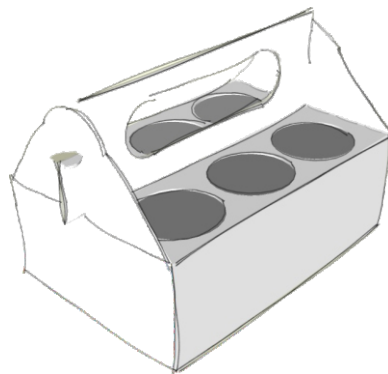
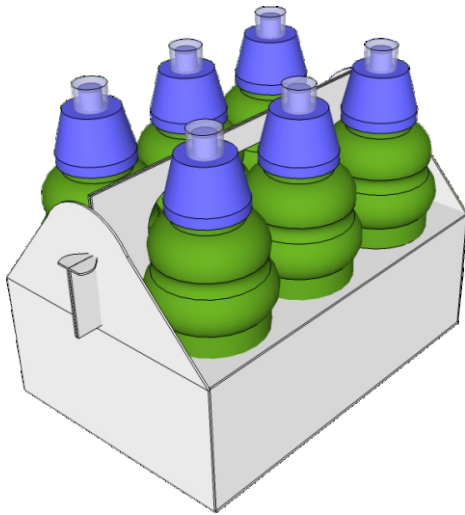
SKETCH OF TOOL

DESCRIPTION

DRINKS CONTAINER - PROMOTIONAL PACKAGING DESIGN FEATURES

11. The packaging seen below, has been designed to hold / store six 'plastic' bottles containing a natural fruit soft drink. It is aimed at the teenage market.

THE QUESTIONS ON THE NEXT PAGE RELATE TO THIS PRODUCT



11. The packaging should have the following design features:

TO HELP YOU ANSWER
THIS QUESTION

Follow the link below.

<http://www.technologystudent.com/prddes1/prodpack3.html>

11a. Explain why the packaging should be sustainable. **2 marks**

11b. Explain why it would be an advantage for the packaging to be educational.
2 marks

11c. Explain why the use of colour and images on promotional packaging, is an important design feature. **2 marks**

11d. The packaging should allow ease of stacking on a supermarket shelf and during transport. Why is this? **2 marks**

11e. The packaging should promote a healthy diet. Why? **2 marks**

TO HELP YOU ANSWER
THIS QUESTION

Follow the link below.
http://www.technologystudent.com/despro_flash/foilblk1.html

EXAMPLES OF FOIL BLOCKING / FOIL STAMPING

PASSPORTS



GOLD FOIL DECORATION



FOIL ENHANCED LEATHER COVERS



BAGS AND PACKAGING



12a. What is Foil Blocking? You should include notes and a diagram(s) in your answer. **3 marks**

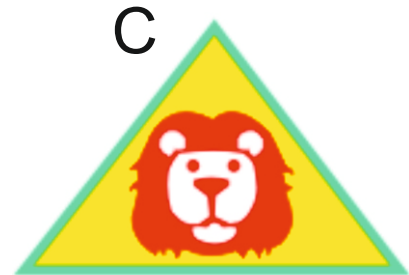
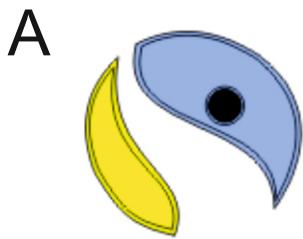
12b. Why do you think Foil Blocking is regarded as an expensive way of decorating a product, such as a birthday card, compared to most other forms of printing? **2 marks**

This question is focussed on materials and also symbols.

TO HELP YOU ANSWER
THIS QUESTION

<http://www.technologystudent.com/despro2/drink7.htm>

13. Three important symbols are seen below. Complete the table by adding the symbol letter to the correct description. **3 marks**



LETTER	DESCRIPTION
	Displayed on a product it means that the manufacturer/retailer has agreed to the 'British Toy and Hobby Associations' Code of practice. It is a consumer symbol that represents the manufacturers promise to conform to all relevant safety information.
	This means that the contents of the package has been produced in the Third World and that the producer (ie. the farmer) has received a fair and realistic price. subsidises.
	The product inside the package, has been tested to European safety standards. The symbol is normally applied to non-food products such as electronic products or toys. However, it may still be applied to the packaging, as a reference to the package itself being safe.

TO HELP YOU ANSWER THIS QUESTION

http://www.technologystudent.com/despro_fish/laminate1.html

http://www.technologystudent.com/despro_fish/laminate2.html

14a. The products shown below are manufactured from laminated card.



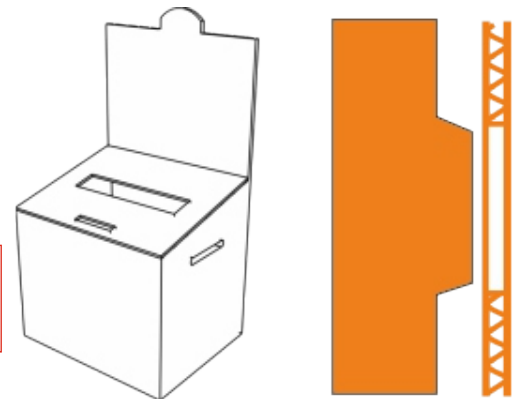
Write two reasons why this type of material is suitable for the products above.

2 marks

REASON 1:

REASON 2:

14b. The large clothes collection box is manufactured from corrugated polypropylene. Write two reasons why this material is suitable. **2 marks**



TO HELP YOU ANSWER THIS QUESTION
http://www.technologystudent.com/despro_fish/charity13.html

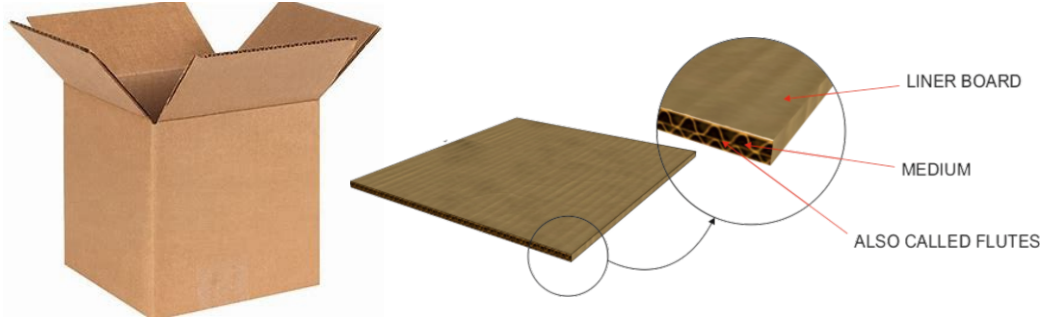
REASON 1:

REASON 2:

TO HELP YOU ANSWER
THIS QUESTION

<http://www.technologystudent.com/despro2/crdpap2.htm>

14c. The packaging box is manufactured from corrugated card. Write two reasons why this material is suitable. **2 marks**



REASON 1:

REASON 2:
