

OXFORD CAMBRIDGE AND RSA EXAMINATIONS
GCSE

A554/01

DESIGN AND TECHNOLOGY
Product Design
Designing Influences

FRIDAY 13 JUNE 2014: Afternoon

DURATION: 1 hour 30 minutes
plus your additional time allowance

MODIFIED ENLARGED

Candidate forename		Candidate surname	
-------------------------------	--	------------------------------	--

Centre number						Candidate number				
--------------------------	--	--	--	--	--	-----------------------------	--	--	--	--

Candidates answer on the Question Paper.

OCR SUPPLIED MATERIALS:

None

OTHER MATERIALS REQUIRED:

None

READ INSTRUCTIONS OVERLEAF

INSTRUCTIONS TO CANDIDATES

Write your name, centre number and candidate number in the boxes on the first page. Please write clearly and in capital letters.

Use black ink. HB pencil may be used for graphs and diagrams only.

Answer ALL the questions in Section A AND B.

Read each question carefully. Make sure you know what you have to do before starting your answer.

Write your answer to each question in the space provided. Additional paper may be used if necessary but you must clearly show your candidate number, centre number and question number(s).

INFORMATION FOR CANDIDATES

The number of marks is given in brackets [] at the end of each question or part question.

The total number of marks for this paper is 60.

SECTION A is worth **30 MARKS**. You are advised to spend no more than 45 minutes on it.

SECTION B is worth **30 MARKS**. You are advised to spend no more than 45 minutes on it.

You will need to select from the tables in **SECTION B** when answering question 4 and question 5 of this paper. 'Trend setter' and 'Iconic product' must be linked to the 'Era or Movement'.

Your Quality of Written Communication will be assessed in questions marked with an asterisk (*).


Any blank pages are indicated.

SECTION A

You are advised to spend 45 minutes on this section.

- 1 (a) The table below shows four product features of a sports bag.
Join EACH product feature to each correct design influence.
One has been done for you.

Product feature	Design influence
Fairtrade cotton lining	Function
Padded handles	Sustainability
Pockets	Anthropometrics
Size of handles	Ergonomics



[3]

- (b) Give TWO examples of market research that the manufacturers of the sports bag could use.

1 _____

2 _____

[2]

(c) Give TWO reasons why manufacturers carry out market research when designing a new product.

1 _____

2 _____

[2]

(d) Explain the importance of advertising a new product.

[3]

[TOTAL: 10]

2 (a) Give TWO reasons why ready meals are popular with consumers.

1 _____

2 _____

[2]

(b) Ready meals are often manufactured using batch production.

Give THREE benefits to the manufacturer of using batch production.

1 _____

2 _____

3 _____

[3]

(c) The packaging on a ready meal has a trademark.

Explain why companies use trademarks.

[2]

(d) Explain how the labelling of products could help protect the consumer.

[3]

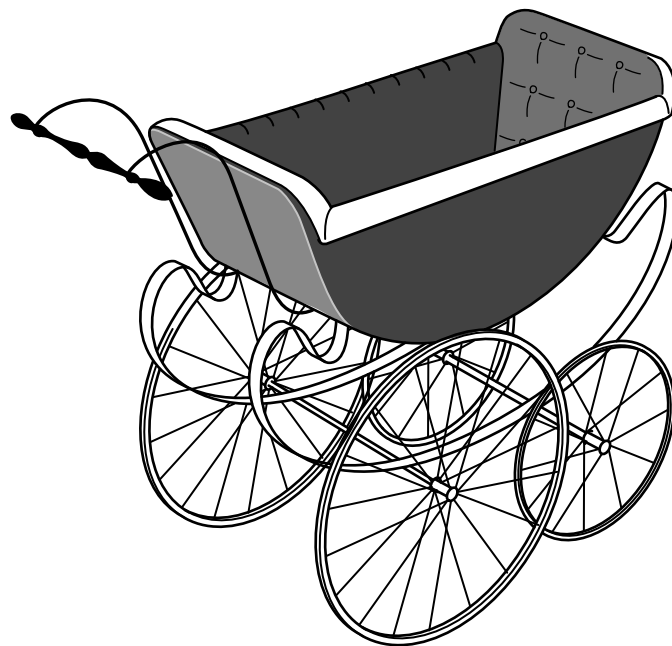
[TOTAL: 10]

3 Fig. 3 shows a modern pram and a pram from 1900.

FIG. 3



modern pram



pram from 1900

(a) The design of prams has changed over time.

Give THREE design features of modern prams that benefit the baby.

1 _____

2 _____

3 _____

[3]

(b) Explain TWO ways in which design features of modern prams benefit parents.

1 _____

2 _____

[4]

(c) Explain how new materials and technologies influence the design of modern-day products.

[3]

[TOTAL: 10]

SECTION B

You are advised to spend 45 minutes on this section.

This question draws upon the research you carried out as part of your examination preparation.

- 4 The table below shows the eras and trend setters for this examination.

Era or movement	Trend setter
1940s to present	Ikea
1960s to present	Levi Strauss & Co
1970s to present	Integrated Circuits
Victorian	Cadbury
1970s to present	John Pasche

- (a)* Select a trend setter from the table above.

Trend setter chosen

Explain why this trend setter has been so influential.

[6]

[illegible]

The table below shows the iconic products for this examination.

Era or movement	Iconic product
1940s to present	Flat pack furniture
1960s to present	Levi 501 jeans
1970s to present	555 Timer
Victorian	Cadbury Dairy Milk
1970s to present	Rolling Stones tongue & lips logo

(b) Select an iconic product from the table on page 11.

Iconic product chosen

Give TWO reasons why the product you have chosen has been so influential.

You must justify each answer.

1

2

[4]

[TOTAL: 10]

- 5 This question draws upon the research you carried out as part of your examination preparation.**

You will need to:

write a specification

produce a range of initial ideas

develop ONE idea

evaluate your final proposal.

Five different design needs are given below.

Please indicate, using a tick (✓), ONE design need you are going to consider.

Design need	✓
A multi-functional coffee table to be sold flat packed.	
A denim garment suitable for a young child aged 2–5 years.	
A children's automatic night light that remains on for a set period of time.	
A novelty celebration cake using chocolate.	
A pop-up card with a 'rock music' theme.	

- (a) Identify FOUR important design specification points for your chosen design need. These must specify key design requirements other than those detailed in the design need above.**

1 _____

2 _____

3 _____

4 _____

[4]

(b) Use sketches and notes to produce a range of initial ideas that meet your specification. [6]

- (c) Use sketches and notes to develop ONE of your initial ideas to meet the original design need. Give details of materials and construction. [6]**

[illegible]

[TOTAL: 20]

17

BLANK PAGE

BLANK PAGE



Copyright Information

OCR is committed to seeking permission to reproduce all third-party content that it uses in its assessment materials. OCR has attempted to identify and contact all copyright holders whose work is used in this paper. To avoid the issue of disclosure of answer-related information to candidates, all copyright acknowledgements are reproduced in the OCR Copyright Acknowledgements Booklet. This is produced for each series of examinations and is freely available to download from our public website (www.ocr.org.uk) after the live examination series.

If OCR has unwittingly failed to correctly acknowledge or clear any third-party content in this assessment material, OCR will be happy to correct its mistake at the earliest possible opportunity.

For queries or further information please contact the Copyright Team, First Floor, 9 Hills Road, Cambridge CB2 1GE.

OCR is part of the Cambridge Assessment Group; Cambridge Assessment is the brand name of University of Cambridge Local Examinations Syndicate (UCLES), which is itself a department of the University of Cambridge.

