

Friday 1st February 2013 – Morning

GCSE DESIGN AND TECHNOLOGY Textiles Technology

A572/01 Sustainable Design

Candidates answer on the Question Paper.

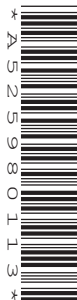
OCR supplied materials:

None

Other materials required:

None

Duration: 1 hour



Candidate forename						Candidate surname					
Centre number						Candidate number					

INSTRUCTIONS TO CANDIDATES

- Write your name, centre number and candidate number in the boxes above. 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** Section 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. If additional space is required, you should use the lined pages at the end of this booklet. The question number(s) must be clearly shown.
- Do **not** write in the bar codes.

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**.
- Your quality of written communication is assessed in the question marked with an asterisk (*).
- This document consists of **12** pages. Any blank pages are indicated.

SECTION A

Answer **all** questions.

You are advised to spend 15 minutes on this section.

On questions 1–5 circle your answer.

- 1** Fairtrade products are usually:
- (a) Produced in the UK
 - (b) Produced in developing countries
 - (c) Cheaper than other products
 - (d) Made in a sweatshop
- [1]**
- 2** Neoprene is used in:
- (a) Swimsuits
 - (b) Duvet covers
 - (c) Fire-fighters' uniforms
 - (d) Wetsuits
- [1]**
- 3** To disassemble a product means to:
- (a) Make it
 - (b) Buy it
 - (c) Take it apart
 - (d) Change it
- [1]**
- 4** Reducing textile waste is:
- (a) Buying extra materials
 - (b) Using less materials
 - (c) Using different materials
 - (d) Using new materials
- [1]**
- 5** Carbon off-setting relates to:
- (a) Carbon footprint
 - (b) Printing
 - (c) Materials
 - (d) End of life disposal
- [1]**

6 The symbol shown stands for:



..... [1]

7 What does LCA stand for?

..... [1]

8 Name **one** of the three types of recycling.

..... [1]

9 State how many arrows the Mobius loop recycling label has.

..... [1]

10 What is meant by the term Product Analysis?

..... [1]

Decide whether each of the following statements is **true** or **false**.

Tick (✓) the box to show your answer.

11 Smart materials are all made of plastic

True	False	
☐	☐	[1]

12 Silk is a natural fibre

☐	☐	[1]
--------------------------	--------------------------	-----

13 Wool is non-biodegradable

☐	☐	[1]
--------------------------	--------------------------	-----

14 A sustainable source is a natural source

☐	☐	[1]
--------------------------	--------------------------	-----

15 Chemical dyes are produced from natural sources

☐	☐	[1]
--------------------------	--------------------------	-----

Total [15]

4

SECTION BAnswer **all** questions.

You are advised to spend 45 minutes on this section.

- 16** Fig.1 shows a boot partially made from recycled fabric.

**Fig. 1**

- (a)** The boot is both functional and aesthetic.

- (i)** State **two** functional design features of the boot.

1

.....

2

.....

[2]

- (ii)** State **two** aesthetic design features of the boot.

1

.....

2

.....

[2]

- (b)** The boots are to be promoted as an eco-friendly product.

Explain what is meant by an eco-friendly product.

.....

.....

.....

.....

.....

.....

.....

..... **[4]**

5

- (c) The boot is to be sold with a Fairtrade label attached.
Give **three** reasons why a consumer chooses to buy Fairtrade products.

1

.....

.....

2

.....

.....

3

.....

.....

[3]

- (d) A water repellent chemical finish is often applied to boots and shoes.
Give **four** disadvantages to society of using chemical finishes.

1

.....

2

.....

3

.....

4

.....

[4]

Total [15]

17 Fig. 2 shows a printed shirt.



Fig. 2

(a) The printing process for the shirt uses chemical dyes.

Identify **three** items of safety equipment that should be worn when printing with chemical dyes.

1

.....

2

.....

3

[3]

(b) Identify **one** natural source for a dye.

..... [1]

(c) The shirt is to be recycled.

(i) Give **two** different ways of secondary recycling the shirt.

1

2

[2]

7

- (ii) Using sketches and notes produce a design for a new product that can be made from the shirt.

[3]

(d)* Discuss how consumer choice and use of textile products can impact on the environment.

Marks will be awarded for the quality of written communication in your answer.

..... [6]

Total [15]

18 Fig. 3 shows a wool felted hat.

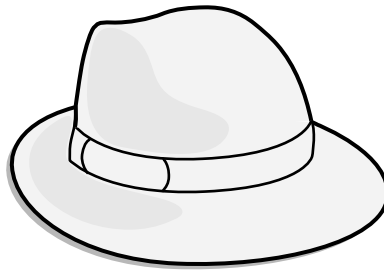


Fig. 3

(a) Give **three** performance characteristics that make felted wool suitable for a hat.

1

2

3

[3]

(b) Explain what is meant by the following **three** terms.

(i) Sustainable

.....

 [3]

(ii) Biodegradable

.....

 [3]

(iii) Tertiary Recycling

.....

.....

.....

.....

..... [3]

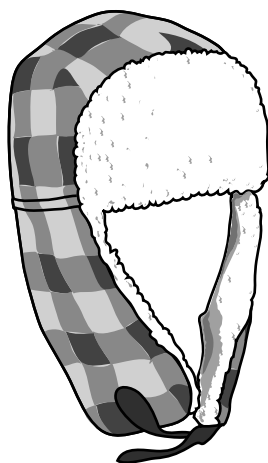


Fig. 4

(c) The hat in Fig. 4 is to be sold as a low cost fashion product.

Give **three** disadvantages to society of low cost fashion.

1

.....

2

.....

3

.....

[3]

Total [15]

END OF QUESTION PAPER

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