

**Friday 1st February 2013 – Morning**

**GCSE DESIGN AND TECHNOLOGY Textiles Technology**

**A572/01 Sustainable Design**

Candidates answer on the Question Paper.

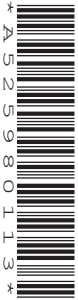
**OCR supplied materials:**

None

**Other materials required:**

None

**Duration: 1 hour**



Candidate forename		Candidate surname	
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Centre number						Candidate number				
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**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	
<input type="checkbox"/>	<input type="checkbox"/>	[1]

12 Silk is a natural fibre

<input type="checkbox"/>	<input type="checkbox"/>	[1]
--------------------------	--------------------------	-----

13 Wool is non-biodegradable

<input type="checkbox"/>	<input type="checkbox"/>	[1]
--------------------------	--------------------------	-----

14 A sustainable source is a natural source

<input type="checkbox"/>	<input type="checkbox"/>	[1]
--------------------------	--------------------------	-----

15 Chemical dyes are produced from natural sources

<input type="checkbox"/>	<input type="checkbox"/>	[1]
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**Total [15]**

**SECTION B**

Answer **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]**

(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.

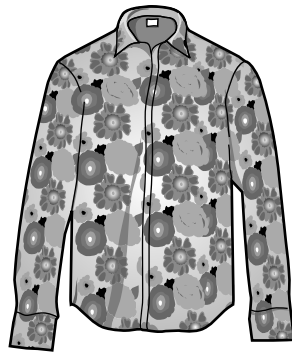


Fig. 2

(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]





18 Fig. 3 shows a wool felted hat.

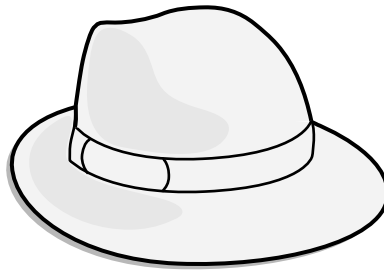


Fig. 3

(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]

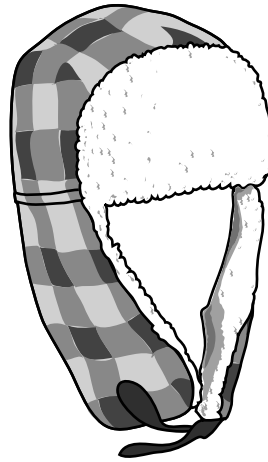


Fig. 4

(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

**ADDITIONAL ANSWER SPACE**

If additional answer space is required, you should use the following lined page(s). The question number(s) must be clearly shown in the margins.

This block contains a large area of lined paper for writing answers. It features a vertical margin line on the left side and horizontal dotted lines for writing. The lines are evenly spaced and extend across the width of the page.

A large area of the page is reserved for writing, featuring a vertical solid line on the left side and horizontal dotted lines extending across the page.



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