



General Certificate of Education

Design and Technology: Food Technology 5541

FTY3

Mark Scheme

2006 examination – June series

Mark schemes are prepared by the Principal Examiner and considered, together with the relevant questions, by a panel of subject teachers. This mark scheme includes any amendments made at the standardisation meeting attended by all examiners and is the scheme which was used by them in this examination. The standardisation meeting ensures that the mark scheme covers the candidates' responses to questions and that every examiner understands and applies it in the same correct way. As preparation for the standardisation meeting each examiner analyses a number of candidates' scripts: alternative answers not already covered by the mark scheme are discussed at the meeting and legislated for. If, after this meeting, examiners encounter unusual answers which have not been discussed at the meeting they are required to refer these to the Principal Examiner.

It must be stressed that a mark scheme is a working document, in many cases further developed and expanded on the basis of candidates' reactions to a particular paper. Assumptions about future mark schemes on the basis of one year's document should be avoided; whilst the guiding principles of assessment remain constant, details will change, depending on the content of a particular examination paper.

1 (a) Discuss why cake bars would be purchased by consumers.

Subject content

Dashboard dining.

Instead of confectionery due to brand extension of cake bars from confectionery or because cake bars are perceived as a healthier alternative to confectionery.

To consume when watching television.

Family members consuming food independently – de-structuring of meal occasions.

Lack of time for food preparation by parents because of an increasing number of families where both parents work or single parent households.

Busy social lives and food consumption having to be fitted in around these, making ready prepared foods such as cake bars quick and convenient.

An increasing number of consumers with special dietary needs; for example, food allergies, vegetarian etc. Cake bars can target these. Weight reduction diets – cake bars are portion controlled.

Cake bars can be themed, making them suitable for children's parties.

Seasonality, e.g. Christmas cake bars.

Indulgence product.

Convenient product.

Higher disposable incomes meaning that indulgence foods such as cake bars can be purchased.

Consumers place more emphasis on their leisure time, not wanting to spend time on unnecessary tasks such as food preparation and, as a result, expect foods to be more convenient.

Lifestyles are more time-pressured, therefore more consumers want to save time on food preparation such as baking.

More economically active women.

A more casual and less formal approach to meal times and greater consumption of snack foods such as cake bars.

The tendency to 'graze' rather than eat three meals a day.

Changing consumer tastes due to more foreign travel, television programmes etc, meaning that the availability of a greater variety of food is required.

Desire for instant gratification: consumers cannot wait for the time taken to prepare a meal, they wish to consume food as soon as possible.

Trend towards the desire for different products; food can be seen as entertainment.

Consumers lack food preparation skills necessary to make equivalents in the home.

Can be individually wrapped to add to convenience.

Easy for consumers to carry: small in size, do not require chilled / frozen storage.

Easy to consume: finger food / hand held fits in with busy life styles.

Size = snack size: fits in with tendency to 'graze' rather than eat meals.

Longer shelf life compared to homemade cakes.

Wide variety of cake bars available, so choice appeals to wide range and age of consumers.

Marketing / advertising

Portion control – same size / shape / nutritional value: not the same for homemade.

Brands – many food manufacturers are using cake bars to extend their range of products, e.g. confectionary.

Lack of consumers making their own due to lack of time and / or skills.

Used for different meals, e.g. breakfast or as a desert.

Cakes are popular.

Individual or multi-buy.

Mark allocation

Explanation	Mark range
Little or basic knowledge of why cake bars would be purchased 1 reason may be explained or 2 or 3 briefly outlined	1 – 3
Some knowledge of why cake bars would be purchased 3 or 4 reasons may be outlined or 2 or 3 explained accurately and in detail	4 – 6
Sound and accurate knowledge of why cake bars would be purchased 4 or 5 reasons explained accurately and in detail	7 – 10

(10 marks)

(b) Explain why food manufacturers should consider the use of fairly traded (Fairtrade) ingredients when manufacturing cake bars.

Subject content

A significant number of consumers are more environmentally conscious. Fairtrade helps to ensure that workers on plantations and in factories in developing countries are paid decent wages, are provided with good housing etc.

Fairtrade helps to ensure that farmers in developing countries are paid a fair price for their produce such as cocoa beans. This price is above the market rate, which can go up or down. This helps farmers to become more self-reliant. The price paid to producers must cover the costs of sustainable production and living. The price should include a premium to allow investment in development.

The Fairtrade foundation monitors the production of approved products to ensure that they meet the set criteria.

An increasing number of foods are available – e.g. sugar, cocoa, chocolate, dried fruit.

Food manufacturers could potentially increase their profits by attracting more environmentally conscious consumers, or consumers who are interested in finding out more about Fairtrade, or fairly traded, from the packaging.

Some consumers are prepared to pay more for the product if they are able to help others.

Greater awareness of Fairtrade ingredients by consumers.

Mark allocation

Explanation	Mark range
1 reason briefly discussed or 2 or 3 briefly outlined	1 – 3
2 reasons discussed or 3 or 4 briefly discussed	4 – 6
3 or more reasons are soundly and accurately discussed in detail to show a clear understanding (to achieve at this level, candidates must discuss)	7 – 10

(10 marks)

2 You have been asked to design a cake bar for a healthy option lunch box that

- **is part of a range of healthy option lunch foods**
- **is suitable to be eaten with the fingers**
- **is decorated attractively**
- **will appeal to a range of consumers.**

- (a) Sketch and annotate four different possible initial design ideas for cake bars for healthy option lunch boxes that take into account the above criteria.**

Variations on the cake bar will need to be accepted, e.g. bread dough, biscuits, e.g. flapjacks.

Subject Content

Each sketch should reflect the general design criteria:

is a cake bar

is suitable to be used in a lunch box

is part of a range of healthy option lunch foods

is suitable to be eaten with the fingers

is decorated attractively

will appeal to a range of consumers.

Each initial idea must be a different product and **not** a variation of the same product.

Each initial idea should be communicated using a sketch which could be 2D, 3D, cross section etc.

Each sketch should be annotated, named and, to achieve the higher marks, there should be some explanation / discussion of how the idea meets the criteria.

Mark allocation per initial design idea (4 x 8 marks)

Explanation	Mark range
Sketch is difficult to recognize, has no annotation and initial idea may not reflect the design criteria	1 – 2
Sketch is recognizable, annotated and reflects some of the design criteria	3 – 5
Sketch is recognizable, annotated in detail to explain / discuss how the idea meets the design criteria	6 – 8

N.B. if no sketch for an idea, no marks can be allocated.

(4 x 8 marks)

- (b) Select your most promising design and develop it further to illustrate your final design proposal.**

In this question marks will be awarded for:

- (i) quality of communication;**

Subject content

Assess the quality of communication of the development of the final design proposal. Communication should show the use of a range of methods, including text, diagrams and annotation.

Mark allocation

Explanation	Mark range
Basic level of communication skills resulting in limited development	1 – 2
Good level of communication skills resulting in appropriate development	3 – 4
High level of communication skills resulting in clear and accurate development	5 – 6

(6 marks)

- (ii) ingredients/materials to be used;**

Subject content

Assess the selection of materials for the development of the final design proposal. Materials should be described to show the quantities, types, pre-preparation etc.

Mark allocation

Explanation	Mark range
Limited description of materials, some of which may not be appropriate	1 – 3
Adequate description of appropriate materials	4 – 6
Clear and articulate description of appropriate materials	7 – 8

(8 marks)

(iii) originality/innovation of the product;**Subject content**

Assess the originality / innovation of the development of the final design proposal.

Mark allocation

Explanation	Mark range
Little originality / innovation The design is already available in supermarkets	1 – 2
Some originality / innovation The design is similar or a variation of a product already available in supermarkets	3 – 4
Good originality / innovation The design is not already available in supermarkets	5 – 6

(6 marks)**(iv) development of chosen item.****Subject content**

Assess the development of the chosen design as a cake bar for a healthy option lunch box.

Mark allocation

Explanation	Mark range
Limited evidence to show development of chosen idea that does not always reflect the general design criteria	1 – 4
Evidence to show good development of chosen idea that reflects the general design criteria	5 – 9
Evidence to show considerable development of chosen idea that reflects the general design criteria including sketches and explanation / discussion resulting in a realistic and appropriate solution	10 - 14

(14 marks)

- (c) **Describe how a food manufacturer could use packaging to protect the cake bar.**

Subject content

Primary packaging to contain the cake bar:

Wrap to cover cake bar.

Rigid card to prevent physical damage during transport and storage and provide some impact protection.

Plastic / foil is impermeable and will prevent moisture damaging cake bar or contamination of the bar. It is airtight to prevent dehydration of the cake bar.

Secondary packaging will hold together a number of cake bars to protect against damage during transportation and storage.

Transit packaging will hold together multiples of containers of cake bars to protect them during transport from the manufacturer to the retail outlet.

Mark allocation

Explanation	Mark range
Limited description of how a food manufacturer would use packaging to protect cake bars	1 – 3
Adequate description of how a food manufacturer would use packaging to protect cake bars	4 – 7
Clear and full description of how a food manufacturer would use packaging to protect cake bars	8 – 10

(10 marks)