

## **Website Exemplar**

### **GCE D&T Food Technology**

#### **Unit: 6FT01**

**Topic:** Luxury Desert.

# Luxury Desserts

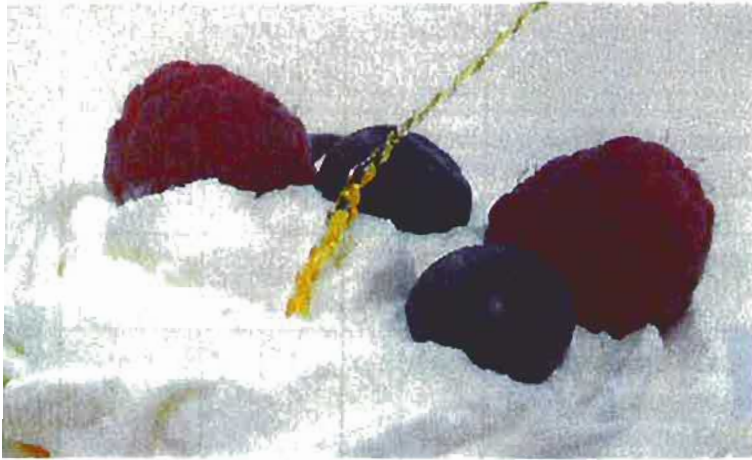


Unit One: 6FT01  
Portfolio of Creative Skills

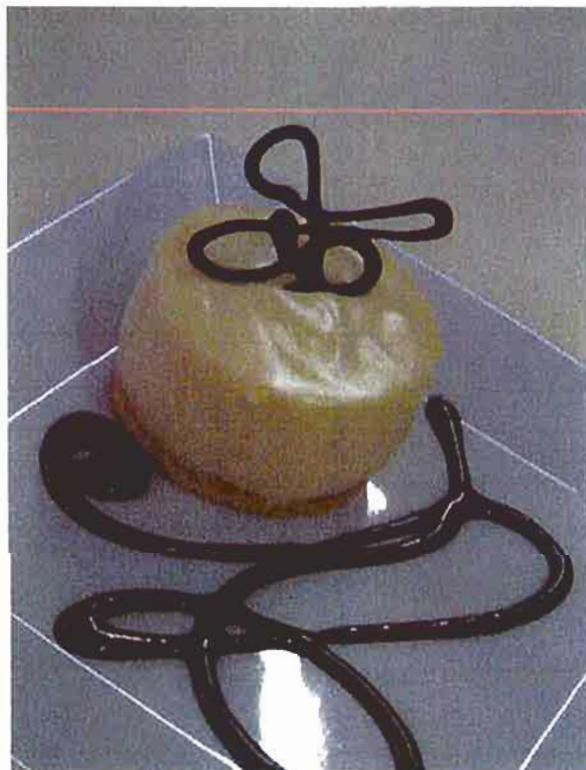
Candidate Number:  
Centre Number:



**Photographic Evidence for the Product Manufacture Section**



**Photographic Evidence for the Product Manufacture Section**



# Product Investigation

# Product Investigation Performance Analysis

Name of product: **Victoria Sponge**

Before designing the trifle the manufacturer would have developed specification outlining the criteria that must be met in order to produce a successful and consistent product. These points would have been referred to throughout the manufacturing process. Measurable points would need to be included wherever possible to allow accurate checks to be made – these are referred to under the heading of technical specification.

## Technical Specification:

### Cost:

£3.99

### Portion size:

Family or for sharing, with a weight of 625g

### User requirements:

Convenient dessert, no cooking or preparation needed, therefore useful as a complete dessert.  
Suitable to be kept refrigerated, though must be consumed within 24 hours once opened.  
Without opening the trifle the product can last for four days.

### Form:

The packaging of the trifle consists of a cardboard sleeve which has the dimensions of 16cm diameter and a depth of 7cm. The trifle is covered with a film which would have been thermoplastic, to keep the product secure and clean; also to see the trifle.  
The shape of the packaging is round to fit the shape of the bowl. This can cause difficulties as fewer products can be transported and stacked. However, the top and the base are flat which diminishes this problem.

### Function:

Ready made dessert containing macro nutrients of starch, fat and carbohydrates. However, the product has very little micro nutrients. The product can be eaten out of the container.

### Performance:

The trifle has the ability to be stored for a maximum of 4 days without being opened and stored in the refrigerator below 5°C. The product also can retain the different layers of ingredients.

### Materials and Components:

| Scottish raspberry and Amontillado Sherry   | Vanilla custard   | Victoria Sponge   | Whipped Cream  |
|---|---|---|--|
| <ul style="list-style-type: none"> <li>Scottish Raspberries<br/>Used for flavour, colour, texture and appearance.</li> <li>Amontillado Sherry<br/>Used for flavour</li> <li>Sugar<br/>Used as a sweetener, therefore improving the flavour of the raspberries especially as it's not their season.</li> <li>Water<br/>Used to make the sauce compote as well as keeping the product moist.</li> <li>Modified maize starch<br/>Used for binding the compote together, also used as a thickening agent.</li> <li>Natural flavourings<br/>Used to add flavour as well as increasing the products attractiveness. This is because artificial colours look false whilst consumers want more natural flavours, increasing the market audience.</li> <li>Concentrated Lemon Juice<br/>Used because it provides a small amount of flavouring and vitamins (from the lemon.)</li> <li>Natural Colour Anthocyanins<br/>Used as they are good pH indicators as they are red at a low pH and blue at a high pH.<br/>The Anthocyanins produce the red/purple colour found in the raspberries.</li> </ul> | <ul style="list-style-type: none"> <li>Milk<br/>This ingredient is the main component of the custard and is also used to thicken the product.</li> <li>Sugar<br/>Used as it sweetens the overall flavour of the custard.</li> <li>Modified maize starch<br/>Used to thicken and bind all of the ingredients together.</li> <li>Whipping cream<br/>This increases the texture and flavour of the custard.</li> <li>Flavouring<br/>This is used to improve the overall flavour, and is most likely to be additives.</li> <li>Vanilla bean seeds<br/>Adds colour to the custard as well as the natural taste of vanilla.</li> <li>Natural colour beta – carotenes<br/>This is an organic compound which adds colour to the product as well as providing vitamin A. However, changes in pH have little effect.</li> <li>Stabilisers, Carageenan<br/>This made by polysaccharides found in seaweed. They are used to gel milk based products (like the custard.) The gel is formed by the stabiliser reacting with the milk protein (casein.)</li> <li>Stabilisers, Pentasodium triphosphate<br/>Thickener of the custard as well as a acidity regulator and salt emulsifier.</li> </ul> | <ul style="list-style-type: none"> <li>Wheat flour<br/>This helps to bind all of the ingredients together as well as thickening the sponge.</li> <li>Wheat flour also helps the sponge to rise.</li> <li>Butter<br/>This binds the ingredients as well as adding moisture and flavour.</li> <li>Pasteurised free range eggs<br/>Binds mixture as well as acting as a thickener. Eggs also help the sponge to rise. As well as adding colour and texture to the product.</li> <li>Not only this, though consumers are starting to consider how the chickens are maintained. Therefore, consumers prefer to see free range rather than battery.</li> <li>Sugar<br/>Adds flavour/sweetener</li> <li>Raising agents, Diphosphates<br/>Help the sponge to rise.</li> <li>Raising agents, Sodium bicarbonate<br/>Also help the product to rise.</li> <li>Humectant vegetable glycerine<br/>This helps to add flavour, as it's known to be very sweet. Not only this, though it also thickens and binds together the sponge.<br/>Also the glycerine is soluble in alcohol.</li> <li>Natural vanilla flavouring<br/>Adds flavour</li> </ul> | <ul style="list-style-type: none"> <li>Whipping cream<br/>Used because it has a better consistency than other creams.</li> <li>Water<br/>This helps to keep the cream moist as well as diluting the mixture to make it more pourable.</li> <li>Maize dextrose<br/>Is used as a sweetener as its 70% to 80% sweeter than sucrose.</li> <li>Stabilisers, tetrasodium diphosphate<br/>This is used because it stabilises the cream as well as acting as a raising agent and a humectant, (this is a moisture retention agent.)</li> </ul> |

Product in Packaging



I think that the best production method for the raspberry and sherry trifle would be by mass production. Mass production is the production of the same product in quantity. This can be done by using time saving techniques and an automated system that will virtually run continually throughout the day.

The product is able to be constructed by using mass production because some of the components would be created off site. These are called pre manufactured components. These ingredients would consist of:

- Custard
- Sponge Base

However, the other ingredients which would be created on site would include:

- Raspberry and Sherry Compote
- Whipped Cream

The problems with components created on site would include the risk of the overall product becoming susceptible to food poisoning, especially because the cream contains eggs which could lead to the consumer becoming severely ill, if not prepared or cooked correctly. If this happens then the consumer may be contaminated with salmonella poisoning.

There must also be careful stock controls and storage of the products to make sure that they will not expire there sell by date. This would then help to avoid waste and keep the costs down.

Because the trifle is mass produced, the operation line could be changed depending on the different seasons of consumer advice.

Examples of this could include changing the different fruit filling as well as creating smaller versions of the trifle.

However, this would increase the cost of production.

The advantages of using mass scale production include:

- Each manufacturing process is split into different sections of production. These all follow the same sequence.
- Food production is quicker to manufacture. Therefore products can be departed from the factory within a faster time scale.

However, there are disadvantages of using mass scale production. These include:

- Mass production can be inflexible to alter the design of the food product. Because all of the food is one the same line, it becomes quite difficult to produce a variety of tastes from the products.

#### Cost

This is a Waitrose own brand luxury product. It will most likely appeal to young professionals who have money to spend on such luxury items. It may also appeal to house holds that require a luxury pudding if they are entertaining for a special occasion. The product has been made from Scottish raspberries and sherry compote (38%) has been used to make the product more appealing to the luxury end of the market. The pudding is priced at the top end of the market, priced at £3.99. The packaging and labelling reflect this; by showing appropriate photographs of the dessert, allowing the consumer to see what they would be purchasing. As well as this, all of the text and descriptions of the pudding are concise and to the point. The product contains 38% Scottish raspberry and Sherry compote. Sherry is a luxurious ingredient, which is why the price has increased. 29% vanilla custard, which uses whole vanilla bean seeds rather than artificial vanilla flavourings; this makes the product more expensive. Both whipped cream (22%) and Victoria sponge (11%) would also be made up of the highest quality ingredients. Although these are not very high ratios, the fact that there is more compote than sponge means that the manufacturer has tried to meet the specification of creating a luxurious product.



Cross Sections of Product

# Performance Analysis

## Name of Product: Strawberry Trifle

Before designing the trifle, the manufacturer would have developed a specification outlining the criteria that must be met in order to produce a successful and consistent product. These points would have been referred to throughout the manufacturing process. Measurable points would need to be included wherever possible to allow accurate checks to be made – these are referred to under the heading of technical specification.

## Technical Specification:

**Cost:**  
£0.99

### Portion size:

Three individual pots each with a weight of 144g (when full of trifle) and 10g (when empty.)

### User requirements:

Convenient dessert, no cooking or preparation needed, therefore useful as a complete dessert.  
Suitable to be kept refrigerated, though must be consumed within 24 hours once opened.  
Without opening the trifle, the product can last for 4 days.

### Form:

The packaging of the trifle consists of a cardboard sleeve with a 22.5cm diameter and a depth of 6.5cm. The cardboard sleeve shows a picture of one of the trifles as well as important nutritional information.  
Each individual pot has a diameter of 7.5cm and a depth of 6cm. The trifles have been covered with a plastic covering so to protect the desserts from any harm.

The products (including packaging) are rectangular in shape, making transport and storage easier as they can be stacked on top each other easily.

### Function:

Ready made dessert containing a large amount of sugar – 22.3g for each pot, and also a large amount of saturates – 5.0g for each pot. Again the trifles have a little amount of micro nutrients. And can be eaten out of the small pots.

The small pots allow the user to constrict their portion sizes, in the aid of slowing down Britain's obesity levels.

### Performance:

The trifle has the ability to be stored for a maximum of 4days without being opened and stored in the refrigerator. Though, the packaging does not state a suitable temperature to be kept at; if not kept correctly the consumer could be at risk from food poisoning.  
However, the product does not have the ability to be kept frozen.  
The trifle has a shelf life of 7 days.

## Materials and Components:

### Topping

- Milk  
This is found in the form of skimmed milk. It is used as it makes up the custard as well as being part of the whipped cream. It is also used to thicken the topping ingredients.
- Whipped cream (13%)  
Used to decorate the trifle to make it appealing and adds texture to the product. It is used as it has a better consistency compared to other creams.
- Stabilisers  
*Disodium, Diphosphate and Sodium Alginate.*  
This is used to hold the cream together in one single form.  
Stabilisers maintain the topping ingredients throughout production, transport and storage.

- Dextrose  
Used in the custard as a sweetener found usually in the form of a dry mixture. Dextrose is usually 70% to 80% sweeter than sucrose (table sugar.)
- Modified maize starch  
Binds and thickens the topping ingredients together.
- Sugar  
This is the most important sweetener. Sweeten the flavour of the topping to give it a better mouthfeel.
- Egg  
This is used to bind all of the topping ingredients together. As well as thickening the overall topping ingredients.

## Fruit and Jelly layer

- Strawberries (12%)  
Provide fruit component, give colour and texture to the product
- Water  
Used as the main component of the jelly. This is because it helps to bulk up the jelly layer so it seems as though the consumer is buying more for their money.
- Gelling agents  
*Pectin and Carob gum.*  
Pectin and carob gum combine with the water to thicken and stabilize the liquid. Stabilisers maintain the fruit and jelly mixture throughout production, transport and storage.
- Sugar  
Used as a sweetener to improve the flavour of the strawberries, as strawberries are not always in season.

- Fruit concentrates  
Add fruit flavouring to the jelly mixture as well as providing an overall taste to the fruit jelly.
- Acidity regulator  
*Citric acid and Trisodium*  
Maintains pH levels. Citric acid is used in the fruit jelly because they help generate the best conditions to form jellies in desserts.
- Colours  
*Anthocyanins and Beta Carotene*  
These are used to add colour to the product. Both Anthocyanins and Beta Carotene are natural flavourings. Anthocyanins produce a red/purple pigment, whilst beta – carotene produce an orange /yellow pigment.
- Stabilisers  
Sodium triphosphate used to preserve and hold moisture in the strawberries.

## Sponge

- Salt  
Used for flavouring. However, salt also contains anti caking agents. These allow the salt to flow and mix evenly during food processes.
- Emulsifiers  
Maintain the quality and the freshness of the sponge. They also help make the sponge to look appealing.
- Wheat flour  
Adds texture and body to the product
- Raising agents  
Sodium carbonate and disodium diphosphate help the sponge to rise
- Egg  
Binds the ingredients and helps the sponge to rise as well as acting as a thickener. The eggs also help the sponge to rise. As well as adding colour and improving the texture.
- Sugar  
Sugar is used as it adds flavour and texture to the baked sponge.  
Though also acts as a humectant.
- Colours  
Gives the sponge colour. Again, the main colouring agents are Anthocyanins and Beta – Carotenes. Anthocyanins are good indicators of pH as they are red at a low pH and blue at a high. However, the changes in pH have little effect with Beta Carotenes.

## Product in packaging





# Performance Analysis

Comparison of products

## Summary

Now that I have evaluated both of the dessert products, I have created the following conclusion incorporating comparisons. Both products had different appearances. The colours from the Waitrose trifle were much more realistic, by this I mean that there was no clear evidence that artificial colours had been used to enhance the dessert; unlike that of the Morrisons product, only costing 99p. The best example of this query is with the custard, taken from both desserts. From the Waitrose trifle, the colours were not as bright and artificial. Not only this though the consumer is able to notice the vanilla pod seeds; used to add improvement to both appearance and flavour of this component. However, that of the Morrisons trifle is much stronger in colour. This could be because the manufacturers may have used custard powder instead of fresh.

Moving on from the custard; both products included real fruit pieces, making the trifles appearance improve. The flavour coming from that of the Waitrose dessert was much more alcoholic than that of the cheaper option. This may be because the target market for Waitrose's product is aimed that the older audience whilst the Morrisons's dessert can be aimed at all ages. The flavour from both the individual portioned trifles was much sweeter, due to the extra sugar used. This made the dessert too sickly. My opinion is that I prefer the flavour from the Waitrose as it is much more subtle and appealing with the integration of the alcohol.

Little sponge was to be found in both products; and that of the more expensive option was too acidic as the sponge has absorbed most of the excess ingredients. With the other product, the taste was too hard to distinguish. Again the cream filled topping was much the same. The only main difference being that the Waitrose trifle seemed to give a better mouth feel as the ingredients were fresher.

The portion size is a different matter. I felt that the Waitrose product was more suitable for group consumption rather than that of an individual, like that of the Morrisons. However, I preferred the portion size of the Morrisons because of the practicality and efficiency, though I did find that the more expensive product had a larger amount of components making it worth the extra money.

The texture of both products was also different. Whilst the Morrisons felt heavy and gave an unpleasant after taste, the one from Waitrose was creamy and gave an excellent mouth feel. The texture of the strawberries in the cheaper version was soft and sickly; giving the impression that the fruit had past its season of ripeness. This gave the dessert a disadvantage.

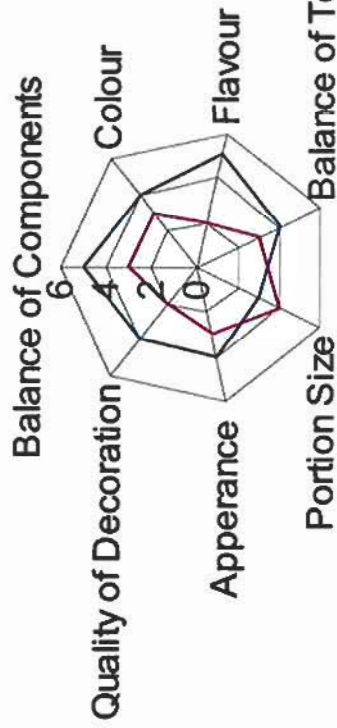
Even though neither product had mentioned whether any artificial colourings, flavourings or preservatives in the section headed additional information; under the ingredient list, both products had used artificial stabilisers such as Pentasodium Triphosphate, (used in the Waitrose product.)

Although the portion size of the Waitrose trifle was its main disadvantage, it did seem to include a better balance of ingredients, even though there was slightly more sponge than necessary. The more expensive trifle also had a better balance of flavours, textures and colours than the other option.

In the Morrisons trifle, the custard and cream ingredients seemed to overwhelm that of the strawberry jelly layer and sponge.

## Comparison of Different Products

- Waitrose
- Morrisons



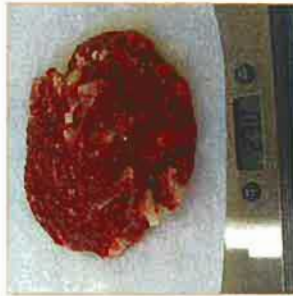
Waitrose Trifle



Morrison's Trifle



Victoria sponge



Raspberry compote



Vanilla Custard



Whipped Cream

## Criterion B Materials, Components and Ingredients

The main component of the luxury branded trifle is the raspberry compote. Only 11% makes up the layer of Victoria sponge; the higher amount of compote shows that there is a better flavour and texture to the product; resulting in an increased structural form and performance.

Alternative ingredients and components could be used to make a modified version of the product. I have listed below the possible modifications to each of the components.

### Victoria sponge

The manufacturers could create a new dessert range for those consumers going on a health eating and living diet. This would be done by reducing the amount of fat in the Victoria sponge; also the amount of sugar can be reduced and the alternative sucralose could be used. (No calorie sweetener). Another range could also be created, using alternate flavours. These flavours could include chocolate, mocha and caramel. Another alternative to the sponge could be colour. (This would be especially useful for children's birthday parties). The colours could include pink, blue or even multicoloured.

### Raspberry compote

The trifle was expensive because of the Amontillado sherry. An alternative to this would be using another cheaper version of this specific alcohol. The manufacturers could also create a range devised for those customers who wish to not consume alcohol; especially if being eaten by children. The range could feature fruit juice or low sugar, sparkling water or lemonade. If the manufacturers were to decide to keep the trifle luxurious, then blueberries could be used as an alternative to the raspberries and liqueur could be the alternative to the sherry. For an economical variety of products, jelly could be used instead, and tinned fruit which is in season would also be money saving.

### Vanilla custard

Instead of the vanilla custard being made on site, as this costs both more time and money, a standard custard component could be brought into the manufacture site. Because cream was used in the custard, skimmed milk could be used as an alternative to full fat. This would suit the healthy eating range. Less sugar could also be used, and again sucralose could be used. Another main alternative would be to remove the vanilla bean seeds (as these would be expensive to purchase) and instead vanilla flavouring could be used.

### Whipped cream

The cream that was used in my product was fresh whipping cream however, cheaper alternatives could be used such as long life whipping cream often used by caterers or cream made from vegetable fat.

| Components of the Dessert Trifle | Advantages   | Disadvantages   |
|----------------------------------|--|---|
| Victoria Sponge                  | The sponge contains free range eggs; this will appeal to more consumers who protect animal welfare.<br>Natural vanilla flavouring is used; this will also appeal to more consumers.<br>It gives a better texture to the product. | As it contains free range eggs, this increases the cost of the product. Cheaper alternatives could be used such as liquid egg.<br>Victoria sponge contains fat therefore increasing the calorific value of the product. |
| Raspberry and Sherry Compote     | Appeals to consumer aware of environmental issues, as the raspberries are from Scotland less fuel is used on transportation, because they do not have to be flown in from another country.                                       | More expensive to produce because of the alcohol.<br>Also expensive because of the raspberries.   |
| Vanilla Custard                  | The use of vanilla beans adds flavour and colour to the product. Also appeals to more consumers as the product is more natural.<br>The high quality ingredients in the custard gave the product a rich creamy mouth – feel.      | Vanilla bean seeds are expensive, cheaper alternative could be used. May increase levels of fat.<br>Artificial stabilizers have been used, consumers prefer natural substances.   |
| Whipped Cream                    | Gives the product a luxurious flavour and makes the presentation appealing.  | Freshly whipped cream can deteriorate quickly therefore giving the product a shorter shelf life.  |

| Per ¼ pot   |                   | per ¼ pot        | per 100g |
|---|-------------------|------------------|----------|
| Calories  | Fat               | Saturates        | Salt     |
| 231   | 19.7g             | 12.3g            | 0.16g    |
| <b>Nutrition</b>                                  |                   |                  |          |
| Typical values                                    | per ¼ pot         | per 100g         |          |
| Energy  | 1213kJ<br>291kcal | 777kJ<br>187kcal |          |
| Protein   | 3.4g              | 2.2g             |          |
| Carbohydrate                                      | 25.1g             | 16.1g            |          |
| of which sugars                                   | 19.0g             | 12.2g            |          |
| Fat   | 19.7g             | 12.6g            |          |
| of which saturates                                | 12.3g             | 7.9g             |          |
| Fibre   | 8.4g              | 5.4g             |          |
| Sodium  | 0.16g             | 0.10g            |          |
| <b>Guideline daily amounts for average adults</b> |                   |                  |          |
| Calories  | Women             | Men              |          |
| Fat   | 2000              | 2500             |          |
| Saturates   | 70g               | 95g              |          |
| Salt  | 20g               | 30g              |          |
| Sugars  | 6g                | 5g               |          |
|   | 90g               | 120g             |          |

Packaging of Product



The label clearly shows the nutritional content of this product. The information is layered out very clearly and it shows the nutritional content per ¼ of a pot and also per 100g. This enables the consumer to look at the values and to make decisions on whether to buy the product or not. The information given would help consumers on calories reduced diets as well as low fat diets.

It can be seen from the labels that 100g contains 187 kcal. To my surprise, it only contains 12.2g of sugar per 100g which I think is quite low for such a dessert. However, the fat content is much higher, it contains 20.5g per 100g, 7.9g of which are saturated fats. The product is relatively low in salt containing 0.10g per 100g.

It also contains useful information for the recommended daily amount for adults. This helps consumers to easily measure the amount of each nutritional component against their diets. As well as this, the recommended daily consumption allows consumers to calculate the amount of kilojoules in which the product contributes to the average adult's daily consumption.

### Environmental Issues

The raspberries have been sourced locally from Scotland, meaning that less money is spent on transportation and unnecessary use of fuel. The raspberries would be kept fresh until manufactured into the product; the easiest method for this would be keeping them frozen until use. Waitrose tend to source ingredients from Britain, meaning less air miles and CO2 emissions affect the environment. However if they had decided to use tropical fruit, such as mango or pineapple then these would have to be transported by air, therefore increases air miles and carbon dioxide emissions.

The dairy products would also be locally sourced.

Waitrose also aim to minimise through accurate ordering; this means that less food produce ends up in land fill sites. Another method of preventing food waste is that Waitrose now donate food to charities focusing on helping the homeless and the vulnerable (throughout the UK), therefore this also prevents food transportation to other countries.

Because packaging takes up so much space in landfill sites, many respectable companies have now devised methods to prevent this from getting any worse. Because Waitrose has expressed concern with using 100,000 tonnes of consumer waste, they have now decided to create environmentally friendly packaging. This included using both recyclable and biodegradable materials as the main alternative.

The packaging has been kept to a minimum, by only using a recyclable sleeve to display all necessary information; as well as this; the product is packaged within a sealed container which is also recyclable. As both are recyclable, this helps to save the environment. The packaging weight has also been kept to a minimum, by using less components and lighter materials. The trifle is an example of this, because both the sleeve and the plastic container of the lightest weight possible; and both are made out of light materials. Because many consumers would eat the trifle out of the container, less cost is spent on washing up.

The packaging (in particular the plastic container and film strip) prevents the entry of bacteria to the product, especially during the storage period. Once needed for consumption, the safety film is removed from the plastic container.

# Assessment Criterion C

## Manufacture

### Production Method:

This product would be made using the process of mass production. I think this because desserts specifically, are in great demand by consumers. However, there are disadvantages to this chosen method. These include expensive set up costs, because the system used, is highly automated meaning that the whole system can only be used to manufacture the one dessert product. Though there is an advantage to this. Using mass production means that the production of each trifle would be consistent in quality when produced.

### Raw Materials

The raw materials for the raspberry trifle include:

- **Raspberry and Sherry Compote – (38%)**  
Raspberries cleaned, sorted and graded compote. This would be a standard component in the manufacture.
- **Vanilla Custard – (29%)**  
Milk, modified maize starch, whipping cream, vanilla bean seeds, natural colour beta-carotenes.
- **Whipped Cream – (22%)**  
Ready for whipping. This would be a standard component.
- **Victoria Sponge – (11%)**  
Standard component

### Comparison with Production Processes

Through the use of changing the main recipe of the product, the finished dessert could be adapted to suit different ranges.

By using semi skimmed or skimmed milk powder to make the custard, this product would be suitable for selling in the 'reduced fat' range of products. This would suit those consumers who want healthy products.

The sugar content could be reduced and instead sucralose could be used as the main alternative.

To appeal to a wider target group and to extend the range for the manufacturer, less expensive ingredients could be used. This could include tinned fruit instead of the fresh or frozen raspberries. This could be sold as part of a 'value' range in supermarkets.

The basic production line would remain the same, however, the main processes would change, even if only slightly.

For example, the flavour of both the custard and Victoria sponge could become chocolate flavoured. Another change could be with the fruit options; instead of raspberries more tropical fruit should be used such as mango or pineapple.

The manufacturer would need to consider whether it is necessary to buy the fruit in as standard components in the form of tins, to save both time and money. The manufacturer could also use custard as a standard component, depending on the choices of development.

Operations which would not need to be changed would include the cream, as this could either be a standard component or made on site. If produced on site, then this can be performed on the same production line and same equipment

### Unique Production Processes Mass Production

| Base   | Raspberry and Sherry Compote  | Vanilla Custard  | Cream Decoration  | Packaging  |
|--|---|--|---|--|
| Cake crumbs measured into plastic containers | Raspberries are cleaned, sorted and graded.<br><br>Raspberry compote evenly deposited using a depositor.<br>Blast chilled between 0°C - 4°C | The ingredients are weighed, using industrial weighing scales.<br><br>All in one method using a separate braff pan. The mixture is constantly agitated to stop lumps from forming. Temperature is controlled to stop the custard from over heating, and burning. | The ingredients are weighed, using industrial weighing scales.<br><br>The cream is deposited through a piping machine on to the top of the custard layer. | The container is sealed and batch stamped.<br><br>The packaging is stamped with the date of consumption and date made.<br><br>The trifle is now stored on a chiller cabinet until distributed to the Waitrose stores nationwide. |
|  |   | The custard is piped on top of the dessert using a decoration nozzle.<br><br>The custard is blast chilled to set at a temperature between 0°C - 4°C.   |   | The trifle is distributed inside refrigerated Lorries.   |

# Manufacture

## Comparison with Scale Production

The batch production method is another method which smaller manufactures use as the running costs of mass production can be high to set up. One of the advantages of batch production is that it can be used to produce a similar product using the same machinery therefore saving costs.

The trifle could be easily produced using the batch production method where large containers of the product are produced to meet the demands of the consumers such as in a work canteen where the food would be made, served and eaten on the same day.

Similar standards components would be used for the batch production as were used in the mass production such as

- Ready made long life custard
- Ready made cake crumbs
- Tinned fruit rather than fresh raspberries, which would be already dized
- Ready made long life cream

The basic method of making the fruit trifle would remain the same as in mass production; however, each process would be manual rather than automated.

The cream would most likely be brought in to the manufacture site as being un whipped. This is because whipped cream has a larger volume which means that storage may be difficult because it would need to be kept in a stable form. As the trifle would be sold in a canteen, there would be no need for packaging and distributing.

## Environmental Issues related to Manufacture

Consumers are now demanding that the majority of food packaging should be made so not to damage the environment. As well as this, the growing concern in using organic and fair trade ingredients is also essential to notice when manufacturing food products.

The use of machinery means that the amount of Carbon Dioxide is emitted; this damages the environment seriously. Because of this, instead of using automated machinery, such as those used during mass production, simple tasks could be carried out by hand; this would especially be useful for batch production methods can each task can be completed in teams of qualified workers.

As well as this, manufacturers using both production methods need to consider ways to reduce the amount of pollution being produced by the food industry. For example, the factory could become environmentally friendly by using insulation to trap heat inside the building. Another economical way could be by using sustainable sources including wind power and solar panels.

However, all of these methods would be done over time, whilst simple methods could be used in the meantime. Not only could manufacturers ensure that the majority of their food packaging is recyclable, biodegradable and compostable; though they could also keep their waste to a minimum. If this is done correctly, then by products could be used as an alternative. For example, in the trifle, raspberries which have been naturally misshapen could be used in the filling because the shape would not matter as the fruit is compressed into the compote.

Electronic equipment can now be used to improve the efficiency of energy costs; as not only does this help save the environment though also help the manufacturer to save money on their investment. Computer systems such as the use of Computer Aided Design can help reduce packaging waste by using efficient methods of lay outs. By this I mean that the electronic system will help by laying out all of the packaging side by side without wasting any space in between.

Locally sourced such as the raspberries are from Scotland, reduce the amount of pollution on the roads by transportation.

## Production Processes Batch Production

|   |   |   |
|---|---|---|
| Base  | Raspberry and Sherry Compote  | Cream Decoration  |
| Cake crumbs would be measured into individual plastic containers. | Cans containing fruit can be opened by hand.<br><br>The fruit is then spread evenly over the top of the cake crumbs manually.<br><br>The jelly crystals would be dissolved in boiling water and chilled until partially set.<br><br>The jelly is then spooned on top of the cake mixture. | The cream would be piped on top of the custard for presentation purposes. . |

# Assessment Criterion D

## Quality

### Quality Checks during Manufacture

To ensure a high performance product is made, a range of quality checks must take place during the manufacture of the product.

The quality checks that would need to take place during the production of the Scottish Raspberry and Amontillado Sherry Trifle would include:

- It is very important that the manufacturer uses a reputable supplier when sourcing all of their ingredients for the trifle. This could include using charities such as fair trade and free range. In the case of the Walthrose trifle, the raspberries were sourced from Scotland; this is clearly stated on the packaging.
- The raspberries would need have a visual check to make sure that they are sufficiently right and of the right colour for the dessert.
- Size and uniformity of the cake pieces needs also to be checked; as this makes the presentation of the trifle improved.
- Organoleptic qualities would be carried out using a group of trainer's sensory analysts to ensure all of the sensory descriptors meet the specification requirements. This would happen throughout the different stages of the trifle.
- Temperature checks would need to be carried out o chilled storage conditions of high risk foods, such as the cream and custard. This is because both are fresh products made using dairy products which would limit the shelf life of the trifle. The temperature of this should be between 0°C and 4°C.
- To prevent the trifle from being contaminated, physical controls tests would need to be taken. This would include using microbiological screening and metal detecting. This will take place using HACCP.
- Once the trifle has been made, a final visual check will be made by workers. They will make sure that the trifle looks good; as well as tasting some of the products to make sure that the machine equipment is working properly, and that all trifles taste like they should do.



### Quality Assurance System

#### Definition

The term 'quality assurance system' refers to a formal management system which is used to strengthen organisations. Therefore, it is intended to increase the standards of working conditions to make sure that everything is done consistently. A quality assurance system sets out expectations that a quality organisation should meet. The quality assurance I would use for this product is the microbiological system.

This system is used because the trifle includes high risk foods which include whipping cream, eggs and milk. However, according to the packaging, the eggs have been pasteurised meaning that they are safe to eat, with a reduced risk of the consumer contacting salmonella food poisoning.

Metal detection is also an important testing system as the trifle is made on an automated production line which may mean that loose parts of machinery could fall in to the trifle during the assembly process.



# Product Design

### Design Brief

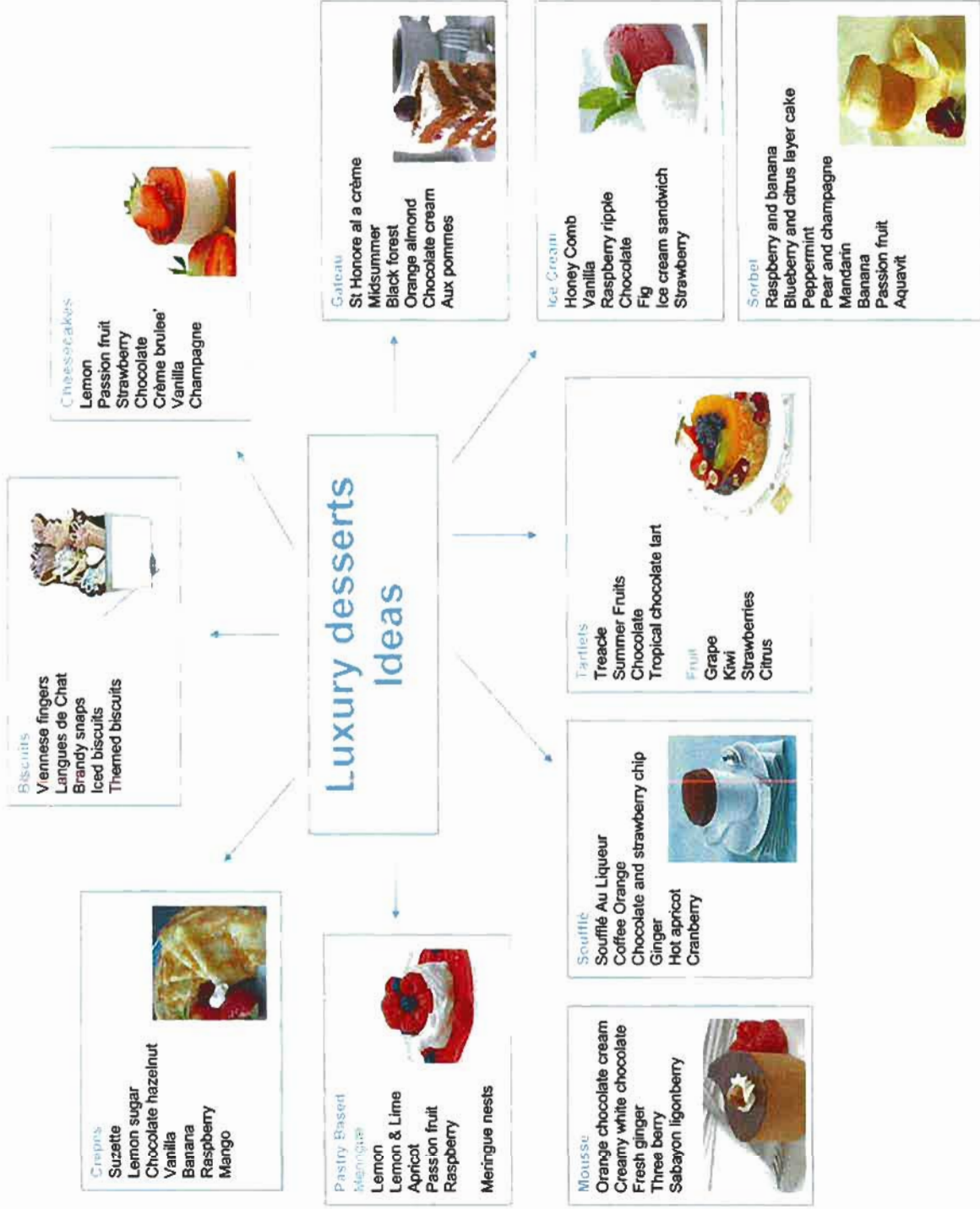
Design and make a luxury dessert that would appeal to 'young professionals' suitable for serving at a dinner party. It should also be suitable for selling in a specialist shop.

### Design Specification

- The product must be aimed at young professionals
- The product must be a luxurious dessert that reflects quality and has an excellent appearance
- The product must portion size should be between 100g – 150g per person
- The product must have a good balance of textures from component parts of the dessert.
- The product must have a good variety of flavours.
- The product should be free from artificial additives.
- The product must be decorative and appealing
- The product must be made from good quality ingredients.
- The products should include fruit
- The final cost of each portion should come to no more than £2.00
- The product should have a shelf life up to 3 days and will require to be kept chilled at a temperature of 4 °C



## Criterion E Product design task





# Dessert Product 1: Passion fruit Cheesecake

I have chosen to make a luxury passion fruit cheesecake. The base shall include fine biscuit pieces crushed together and moulded into delicate individual portions. The heart of the cheesecake will be light and fluffy due to the flavoursome passion fruit giving this dessert a velvet taste which lingers on the taste buds after every bite.

| Ingredient               | Cost £ | Function  |
|--------------------------|--------|---|
| <b>Cheesecake</b>        |        |   |
| 35g Butter               | 0.23   | Butter is used to combine the biscuit crumbs together. It also provides flavour   |
| 75g Crushed biscuits     | 0.16   | This acts as the base for the product and gives a good crunchy texture  |
| 300g Cream cheese        | 1.35   | This is used as a main component of the filling. It provides a creamy mouthfeel. As well as adding flavour to the product.                                |
| 300ml Double cream       | 0.96   | Helps to thicken the filling mixture and provides a smooth mouthfeel.   |
| 125g Caster sugar        | 0.35   | Sugar is used to sweeten the product and helps with the overall texture.  |
| 70g Passion fruit puree  | 0.60   | Passion fruit is used to add the main flavour. It also adds colour and makes the product more appealing.  |
| <b>Gelatine</b>          |        |   |
| 25ml water               | 0.00   | This is used to help the overall consistency of the glaze   |
| 15g Sugar                | 0.02   | sugar is used to sweeten the glaze as well as helping with the texture  |
| 25g Passion fruit puree  | 0.40   | Gives the glaze colour and flavour to make the product more appealing to consumers.   |
| 2 leaves Gelatine leaves | 0.08   | Gelatine helps the cheesecake mixture to set. It also combines the glaze ingredients as well helping the overall dessert to stay together for appearance. |
| 1 fruit Passion fruit    | 0.69   | Gives the cheesecake excellent mouthfeel as well as colour. Gives a lovely flavour.   |
| <b>Total cost</b>        | 4.84   |   |
| <b>Cost per portion</b>  | 1.21   |   |

## Method for cheesecake:

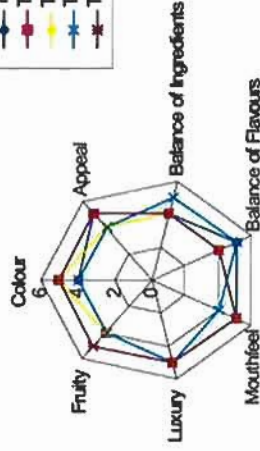
Melt the butter and mix with the biscuit crumbs. Cover with the biscuit mixture, pressing down firmly to make a sealed base. Chill for 20 minutes in the fridge. Fold the whipped cream into the cream cheese and sugar. Spread a third of the cream cheese mixture over the biscuit base, add 2 tablespoons of passion-fruit and swirl around with the tip of a knife.

Repeat with another third of the cream cheese mixture and another 2 tablespoons of passion-fruit puree, and then a third time with the remainder. Chill the cheesecake in the fridge for at least 3-4 hours.

## Method for glaze:

Heat water in pan, tip in sugar and dissolve and simmer for 1-2 minutes, until the syrup cooks down to 2 tablespoons. Stir in passion-fruit puree. Bring to a simmer, add the drained gelatine and stir to dissolve. Leave glaze to cool. Scoop out the pulp of the passion fruit and add this to the glaze. Pour the glaze over the chilled cheese cake and chill until set.

## Views on my Passionfruit Cheesecake



## Conclusion:

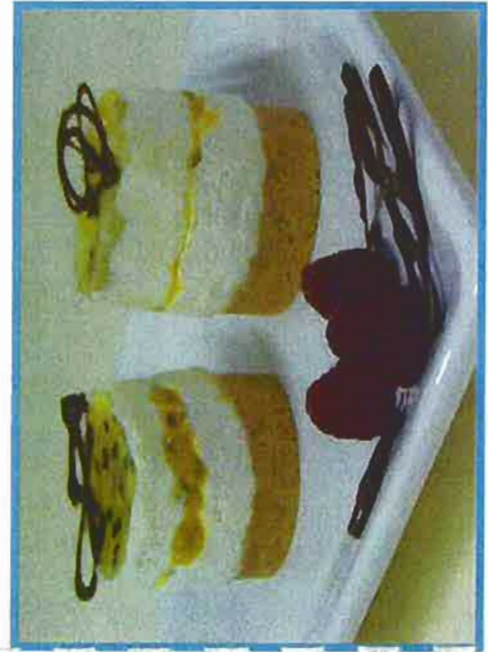
The overall flavour of my product was described as sensuous, whilst the overall appearance of my product was described as desirable. There was a good texture to the product due to the different layers of fruit and cream cheese mixture. The cheesecakes delivered an excellent mouthfeel, again due to the different levels contained in the product. However, for the gelatine I was planning on using a vegetarian option; though, once applied to the top of the cheesecakes this made the product look dull and messy, therefore not meeting the design brief on luxury. Because of this, I ended up using standard gelatine and this proved to be very successful in that it gave the product a lovely shine and professional finish. Nevertheless, my product was thought to be very well presented with the use of chocolate as a fundamental decoration as well as the use of fresh raspberries.

## Development:

I could create a luxury range based on different fruit options suitable for different seasons. Dark chocolate mousse and a light chocolate mousse could be used and may look very eye-catching as well as adding extra flavour to the product. I would also research into bigger portion sizes, so consumers would be achieving more dessert for the cost and this would suit a wider target group. Also with the biscuit base I could try different flavours such as chocolate, ginger and whole wheat. To change the texture of the product, I could research into using nuts with the mousse or in the base. I also think that I would develop the shape of the product. To make sure that there is a full balance of ingredients, and I could even research into using chocolate to make sure the product stands fully. This would be done by moulding the chocolate into a cone shape around the cheesecake exterior.

## Manufacturing:

The biscuit base could be bought in as a pre manufactured component to save time and cost. The mousse would be made using large industrial mixers. The decorations will be hand made to add elegance and luxury to the products. However, the main disadvantage would be the shelf life of the products due to the fresh ingredients, including the passion fruit. Because of this, I do not think that it would be suitable to sell in a supermarket, and instead be better off in a patisserie. If I was to develop this product for use in a supermarket, I would have to use additives amongst the mousse filling, as well as having to modify the passion fruit so it does not weaken during storage. Finally, this product would be made by batch production.



# Dessert Product 2: Fruit Tartlets

For my second product, I have decided to create tantalising fruit tartlets. The pastry shall be made out of the finest ingredients, moulded into individual portions causing the delight of individuality. Whilst the sumptuous vanilla custard's sharp, but soothing taste catches on the tongue after every bite. Finally the tartlets are decorated with premium fruit suitable for the season, to add the touch of luxury.

| Ingredient              | Cost<br>£   | Function   |
|-------------------------|-------------|--|
| <b>Pastry</b>           |             |  |
| 175g Plain flour        | 0.25        | Starch swells and gelatinises forming crumbly, short texture whilst the pastry is baking.  |
| 1tbsp Caster sugar      | 0.06        | Sweetens the pastry and gives a good texture.  |
| 120g Cold butter        | 0.46        | The butter melts and is absorbed by the flour. Acts as a shortening agent as well as giving colour and flavour to the tartlets.  |
| 2-tbsp Cold water       | 0.00        | The water hydrates the flour particles and forms gluten strands which bind the pastry together.                                  |
| <b>Vanilla custard</b>  |             |  |
| 450ml Milk              | 0.30        | Main liquid component of the custard. It aids the gelatinisation process in the starch   |
| 50g Icing sugar         | 0.08        | Sweetens the custard filling   |
| 25g Corn flour          | 0.01        | The corn starch gelatinises. The liquid has been absorbed to form a three dimensional shape. Once cooled this forms a gel.       |
| 2Egg yolks              | 0.56        | The egg yolks coagulate (the change from a liquid to a solid) at 65°C and eventually thicken at 70°C. This thickens the custard. |
| 1 tbsp Vanilla essence  | 0.26        | Vanilla gives the custard flavour as well as a slight amount of colour.  |
| <b>Fruit</b>            |             |  |
| 8 Green seedless grapes | 0.16        | These are used to add decoration to the final product. The grapes also show colour and give the product texture and flavour.     |
| 5 Black seedless grapes | 0.10        | They are used to add decoration to the final product. The grapes also show colour and give the product texture and flavour.      |
| <b>Total cost</b>       | <b>2.24</b> |  |
| <b>Cost per portion</b> | <b>0.56</b> |  |



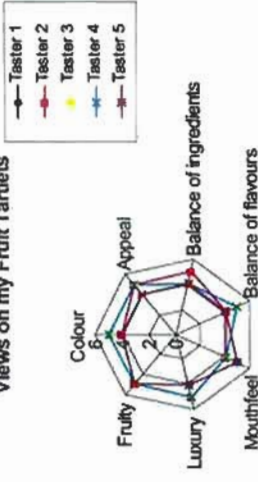
## Method for Pastry

**Stir flour with sugar.** Rub butter into flour mixture until crumbs. Sprinkle water into mixture until mixture holds together. Shape dough into ball shape. Chill for 1 hour. Preheat oven to 220°C.  
**Roll out dough and ease into tins evenly.** Trim off any excess. Line shells with foil and fill with baking beans. Bake for 10 minutes.

## Method for vanilla custard filling

**Using a non stick pan, stir together all ingredients except vanilla essence.**  
**Over medium – low heat, cook until mixture thickens.** Stir in vanilla essence and cool custard.

## Views on my Fruit Tartlets



## Conclusion

The flavour of my fruit tartlets was described as being opulent whilst the appearance was thought of as mouth watering. There was an excellent texture was due to the different use of components, with the light, crispy pastry combined with the thick, flavoursome vanilla custard with the use of fruit giving the products freshness. Before producing the product, I was thinking about using strawberries instead of grapes. However this was not their season and I did not want to use fruit which had been chemically altered to suit consumer needs. Therefore, I changed my thoughts to using an apricot glaze to give the fruit extra sharpness. If I were to recreate this product, I'd make sure that the pastry was not over cooked, as this was my main area of criticism. Nevertheless, my product was thought to be well executed which showed through the layout of the fruit pieces.

## Development

I feel as though developing this product could include a vast amount of creative skills. I think this because the pastry could be moulded into different shapes such as diamonds and stars. Whilst fruits could suit each season such as mangoes and strawberries could suit the summer seasons well. The custard could be developed into different flavours such as chocolate, which in return offers a variety of colour. Spices could also be used in both pastry and custard. I think that this product is creative because I could research into different decoration methods such as caramel, to create patterns as well as adding to the texture and colour. I will also research into chocolate adornments. These could include the feathered effect by using white and milk chocolate; another decoration could include chocolate leaves and shapes. However, I do not think that I need to research into portion sizes, as my taste panel mentioned that they were suitable for young professionals on the move.

## Manufacture

The fruit tartlets could be batch produced; this is mainly because it reduces the cost as machinery can then be used for similar desserts. I think that the pastry would be made pre manufactured as this provides a consistent product. The shape of each tartlet would be produced by a cutting machine, which 'punches' out the desired shape of the manufacturer. As well as this, they would be baked blind in a conveyor oven where tested for colour and overall appearance. The custard filling would be deposited into each tartlet by machinery; whilst the fruit topping would be produced on an assembly line. The shelf life of the product would be approximately 3 days due to the fruit and custard filling. However, additives would be needed in this product to extend the shelf life.

# Dessert Product 3:

## Layer of mousses on a sponge base

My final product is to be a rich dessert consisting of three delicate layers made up of a base of light, fluffy sponge followed by an irresistible chocolate mousse contrasting with the explosion of the raspberries making up the final layer of mousse.

| Ingredient                   | Cost £      | Function   |
|------------------------------|-------------|--|
| <b>Sponge</b>                |             |  |
| 3 eggs                       | 0.45        | Increases colour and flavour of the cake, as well as add protein to the framework. Eggs also act as a raising agent. |
| 150g self raising flour      | 0.36        | Contains correct amount of chemical raising agent.   |
| 150g caster sugar            | 0.48        | Sweetens mixture, adds volume to the cake, and raises temperature of coagulation between egg and flour.              |
| 150g soft margarine          | 0.46        | Adds flavour as well as improving the keeping quality.   |
| <b>Chocolate mousse</b>      |             |  |
| 2 egg yolks                  | 0.30        | Enrich the mousse and creates a smooth mouthfeel   |
| 100g chocolate               | 0.62        | Adds flavour and colour to the mousse.   |
| 12g gelatine                 | 0.08        | Helps the mousse to set by the process of gelling  |
| ¼ pint whipping cream        | 0.48        | Gives a creamy smooth, texture and a good mouthfeel. Adds extra volume to the mousse                                 |
| 4 tbsp milk                  | 0.09        | Help the ingredients mix together.   |
| <b>Raspberry mousse</b>      |             |  |
| 200g frozen raspberries      | 1.99        | Adds flavour and colour to the mousse  |
| 100g caster sugar            | 0.36        | Sweetens the mixture, as well as adding volume to the mousse.  |
| 3 tbsp powdered gelatine     | 0.08        | Helps the mousse to set  |
| ¼ pint double whipping cream | 0.96        | Gives a smooth texture as well as adding extra volume.   |
| <b>Total cost</b>            | <b>6.72</b> |  |
| <b>Cost per portion</b>      | <b>1.68</b> |  |

### Method for Raspberry Mousse:

Press raspberries in sieve to extract juice. Sprinkle gelatine over puree. Refrigerate. Beat eggs, milk and sugar until blended, add remaining gelatine. Whip double cream to form stiff peaks. Fold half of whipped cream into mixture.

### Method for Chocolate Mousse:

Beat egg yolks, milk and sugar until blended. Sprinkle gelatine over mixture. Stir in chopped chocolate. Cook until gelatine dissolves. Refrigerate mixture. Whip double cream to form stiff peaks. Fold whipped cream into chocolate mixture. Refrigerate.

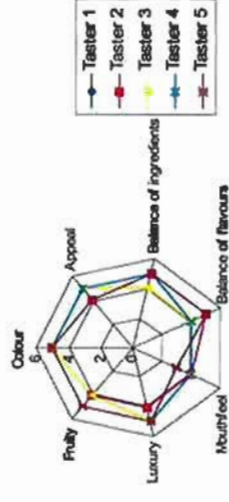
### Method for Sponge:

Beat butter and sugar until smooth and creamy. Beat eggs and add to mixture in small amounts. The flour keeps same smooth, creamy consistency.



Not all of the mousses turned out to be of an equal size, and the main problem was when the chocolate ran into the sponge.

### Views on my Layer of Mousses on a Sponge Base



### Conclusion

My final product did not score as well as my other desserts with my taste testers. I think this is because the flavour of the raspberry mousse was thought of as being too rubbery unlike that of the chocolate. This is because the raspberry mousse kept setting before applied to the dessert, due to this I had to place the mousse into a bowl of warm water until forms a runny consistency, after this I had to add more cream to give the mousse a glossy colour. This was not the only problem that occurred when making this product. At the final stage, creating the perfect layers proved difficult. This was because the chocolate kept on running into the sponge. This did not live up to my idea of luxury. In the end, I chose the two desserts which were used only as leftovers. I chose these two because each layer was the same width of ingredients.

### Development



With developing this product I do not think that there would be much to develop. This is because very little creative skills would be needed. However, I do think that I could change the flavours of the sponge. Flavours that I could include are: white and dark chocolate in a marbled effect. I could also add texture to the sponge by adding wafer crisps or nuts with fruit. Another development could be with the layers of mousse. I could develop this by trying more layers as well as different flavours and textures. In return this would add different colours.

### Manufacture

The most appropriate method of production for this product would be 'batch production'. The cake base could be manufactured on site or bought as a pre-manufactured component. If it was to be produced in the factory, industrial mixers would be used to make the cake mixture. The shape would then be cut out using automatic cutting machine to ensure consistency. The mousses would need to be produced on site and fresh ingredients such as the fruit and cream would be bought in. Quality checks would be carried out to ensure ingredients are of a highest standard. The mousse mixture would also be made using industrial mixers



# Summary







| Name of product                  | Image  | Strengths  | Weaknesses   | Specification points met  | Manufacture  | Development  |
|----------------------------------|--|--|--|---|--|--|
| Passion fruit cheesecake         |   | <p>The cheesecakes were good in portion size. Holding an unusual composition which made the product unique. Whilst the overall products had excellent flavour and colour. The presentation was also thought to have been luxury.</p> | <p>The cheesecakes did not have a balance of ingredients as there was more cream than passion fruit. Would not be suitable for vegetarians.</p>  | <p>7 / 10 points met</p> <ul style="list-style-type: none"> <li>✓ young professionals</li> <li>✓ luxurious dessert</li> <li>✓ decorative and appealing</li> <li>✓ includes fruit</li> <li>✓ chilled storage</li> <li>✓ cost under £2.00</li> <li>✓ free from artificial additives.</li> </ul>   | <p>The mousse and biscuit base would be made by batch production; whilst the decorations would be hand made. Additives would be used to extend the shelf life.</p>   | <p>I would include more fruit as well as alter the biscuit base and mousse filling.</p>  |
| Fruit tartslets                  |   | <p>Because of the fruit components and the apricot glaze, this product has a good nutritional value. Both flavour and texture was approved of my taste panel.</p>  | <p>I feel as though there is a lack of presentation with this dessert. The product may not suit young professionals compared to other desserts; as it could be difficult to eat on the move.</p> | <p>8 / 10 points met</p> <ul style="list-style-type: none"> <li>✓ includes fruit</li> <li>✓ chilled storage</li> <li>✓ good variety of flavours.</li> <li>✓ decorative and appealing</li> <li>✓ luxurious dessert</li> <li>✓ good balance of textures</li> <li>✓ free from artificial additives.</li> <li>✓ portion size between 100g – 150g</li> </ul> | <p>The tartlets would be manufactured by the use of a robotics, whilst an assembly line could easily prepare the fruits on top.</p>  | <p>I could research into different fruits as well as changing the filling flavour and pastry flavour and appearance.</p>   |
| Layer of mousse on a sponge base |  | <p>The main strength of this product would be the portion size as well as the presentation of each layer of this creation. I also think that the use of the cream provides an artistic luxury to this dessert.</p>                   | <p>The main weakness of this dessert was with the layers of mousse. This is because the colours of the raspberry and chocolate clash with each other.</p>  | <p>5 / 10 points met</p> <ul style="list-style-type: none"> <li>✓ young professionals</li> <li>✓ luxurious dessert</li> <li>✓ good balance of flavours</li> <li>✓ decorative and appealing</li> <li>✓ chilled storage</li> </ul>  | <p>The sponge base would be manufactured on site or bought as a pre manufactured component. Industrial mixers would be used to make the cake mixture. The shape would then be cut out using automatic cutting machines. Quality checks would be carried out to ensure ingredients are of a highest standard. The mousse mixture would also be made using industrial mixers</p> | <p>I would develop this product by changing the mousse flavours to more subtle colours as well as using vegetarian gelatine instead of pork. Another development could be with the base; such as different colours and flavours.</p> |

# Assessment Criterion F

I have decided to develop my fruit tartlets.  
The reasons for this include:

- There are many components which form the tarts. These components allow flavour and mouthfeel to be altered.
- Improvement on weaknesses.
- The main weakness was presentation. This can be altered to include luxurious designs which will appeal to my target group.
- Alterations to the filling.
- The fillings can be changed to suit a wider audience and makes the product more interesting and unique.
- Alterations to the pastry
- The pastry can include a variety of flavours such as using ground nuts to give a improved flavour and texture and colours to look more interesting and unusual.
- The product met 8 out of 10 of the specification points.
- Meaning there is room for improvement to make the dessert suit a wider diversity.

In the table below I have listed the components which could be developed.

|   |  |
|---|--|
| <p><b>Development of pastry base</b></p>  |  <p>The flavour of the pastry can be changed to include interesting combinations as well as changing the colour to one of a more unusual and exciting tint. I could use ginger to add flavour and a slight difference for colour.</p>   |
| <p><b>Development of base design</b></p>  |  <p>Instead of using a tart tin, I could change the pastry to the form of a biscuit as well as use ingredients to add a variety of texture and flavour. Walnuts give varied texture which would increase the mouthfeel of the pastry.</p>   |
| <p><b>Development of filling</b></p>      |  <p>I could use fruit to add flavour or alter the crème to a thicker texture and increase the mouthfeel as a whole. I could also look at using ice cream instead of custard. Another development could include using a mousse filling. Research into different shapes and proportions.</p> |
| <p><b>Development of toppings</b></p>     |  <p>Instead of using fruit, I shall consider more abstract designs and look at working with caramel and chocolate. To add a more desirable twist to the original tart.</p>  |
| <p><b>Development of fruit</b></p>        |  <p>The kiwi and grape could be exchanged for more exotic such as carambola or cocona or even passion fruit, (which adds aroma.) The fruit could be used inside the mousse instead of on top of the dessert.</p>  |
| <p><b>Development of presentation</b></p> |  <p>I can look into using fruit coulis or decoration with chocolate curls and glazed fruit to give the product a luxury appearance.</p>   |

Now that I have completed my development choice, I shall outline the areas which should be met in my product development. The reason for this is to make sure that the quality and finish of the final product is acceptable to suit the demands of the criteria.

- The product must be a **luxury dessert** which should include a pastry or other form of base. This ensures that the product can be fully developed to include different areas of choice.
- The product should be suitable for serving as part of a meal for a **special occasion**
- The product must have **variety of flavours** throughout each layer of the dessert. This is to make sure that the dessert is enjoyable and also adds interest to the product.
- The product should also have **various textures** to ensure that each component has a different texture to make the overall product original and interesting for the consumers.
- The product should be suitable for **young professionals**. This group of people tend to have money available to spend on luxuries such as a dessert product.
- The product should use **decoration** to make the product more appealing and luxurious to the target market. The decoration could be used on the top of the dessert or as a plate decoration with a modern theme.
- The product needs to be of a **reasonable price** which should consider the ingredients used. The dessert price should be of a maximum of £2.00 per portion. However, this should not affect the idea of luxury and quality.
- The product should **include fruit** though the format of this should be developed, such as including the fruit pieces as decoration or as the main ingredient of the filling.
- The product should be of a **suitable size and shape** to make consuming the product easier as well as the packaging. as another aim is to produce less waste from covering. However, the product needs to be easily transported.
- The product needs to be **easily manufactured** for batch production, as if the dessert will be mass produced for the industry.



# Development of Pastry

I have decided to look at different pastry types for my fruit tarts. The reason that pastry is essential in this product is because without the firmness, the filling would not be correctly supported. The use of varied ingredients helps to give the pastry different colours and textures. Because of this, I am hoping that my pastry cases will achieve all of these desired aspects.

**Plain**

**Ingredients**

- 75g Plain Flour
- 25g Caster Sugar
- 50g Butter
- Cold Water

**Method**

Mix flour and sugar together. Rub butter into breadcrumbs. Add water until formed into ball. Roll out pastry into desired form.

**Summary**

The pastry had a very firm texture and was thought of as being crispy which is excellent for supporting the flavoured pastry cream. However, on its own, the pastry does not include any interesting or desirable flavours. The base would also not contribute to the appearance of the dessert unlike some of the other development bases. However, this also depends on the pastry cream that I will be using. This is because this base would suit a vivid colour compared to some of the other pastries.

**Views on Plain Pastry**

Colour: 1-5  
Appearance: 1-5  
Balance of Ingredients: 1-5  
Balance of Flavours: 1-5  
Mouthfeel: 1-5  
Luxury: 1-5

**Pink**

**Ingredients**

- 75g Rice Flour
- 1 tablespoon Beetroot Juice
- 1 table spoon Olive Oil

**Method**

Mix flour, sugar and beetroot juice. Rub butter and add water until forms a ball shape, if sticky, add flour. Roll out into desired shape.

**Summary**

The colour of the pastry was thought of as being attractive and unusual. However this was not the same for the flavour. My taste panel found that the product delivered an undesirable mouthfeel. As well as this, the texture of the product was too crumbly to hold the filling. Another problem with this pastry type was that there would not be any variance with the pastry cream and fruit. I say this because there are only a limited number of products which would benefit to this product (such as strawberries and raspberries.)

**Views on Pink Pastry**

Colour: 1-5  
Appearance: 1-5  
Balance of Ingredients: 1-5  
Balance of Flavours: 1-5  
Mouthfeel: 1-5  
Luxury: 1-5

**Walnut and Ginger**

**Ingredients**

- 75g Plain Flour
- 25g Caster Sugar
- 50g Butter
- Cold Water
- 1/4 teaspoon Ginger
- 15g Chopped Walnuts

**Method**

Mix flour, sugar, chopped walnuts and ginger. Rub butter and add water until sticks together and able to handle. Chill. Roll out to suit pastry cases.

**Summary**

The base was firm because it was the same recipe as the plain pastry, though there was a large difference in flavour from the added walnuts and ginger. The extra ingredients also add a slight amount of colour to the final appearance with the walnuts. However, the base would not be as interesting as the pink pastry. It may also prove problems with other corresponding flavours. The case was thought of as being quite filling.

**Views on Walnut and Ginger Pastry**

Colour: 1-5  
Appearance: 1-5  
Balance of Ingredients: 1-5  
Balance of Flavours: 1-5  
Mouthfeel: 1-5  
Luxury: 1-5

**Chocolate Lemon Crunch**

**Ingredients**

- 50g Malted Butter
- 100g Chocolate Wafers
- 1/2 Lemon Rind

**Method**

Crush wafer biscuits and mix in with butter. Chill. Press into desired pastry case form.

**Summary**

The difference of this pastry was thought of as appealing and suitable for a wider market. However my tasting panel thought that too much lemon was added, making the product sour. Apart from the colour being attractive, the base would not be suitable to hold the pastry cream successfully. However, the texture was thought of as desirable by being both crunchy and crisp. This base may also prove problems with the variance of flavours from other products, causing a clash of senses.

**Views on Chocolate Lemon Crunch Pastry**

Colour: 1-5  
Appearance: 1-5  
Balance of Ingredients: 1-5  
Balance of Flavours: 1-5  
Mouthfeel: 1-5  
Luxury: 1-5

The pastry that I am going to use for my final product is the Walnut and Ginger casing. I think that this is best for both firmness and texture whilst also adding a variety of flavours compared to the existing plain pastry. The Walnut and Ginger base also does not restrict the choice of potential fillings and toppings compared to some of my other choices. However, this means that I will have to use the extra ingredients in moderation. I am now going to develop pastry creams and fillings.

# Development of Fillings

For my second development I am investigating fillings for my tartlets. These will be contained in my chosen pastry cases. I will be choosing the filling which tastes the best though also the most unusual which has not been seen in the form of a tartlet before. However, the flavour must work well with that of the walnuts and ginger from the pastry.

## Vanilla Pastry Cream

### Ingredients

- 125ml milk
- 25g caster sugar
- 125ml double cream
- 1 teaspoon vanilla
- 2 egg yolks

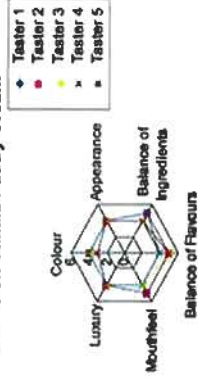
### Method

In saucpan over medium heat mix all ingredients together apart from vanilla essence. Stir until coats back of spoon, add the vanilla.

### Summary

The texture of this product was thought of as desirable with a creamy mouthfeel as rapid flavour release of the vanilla. The cream would suit any topping of fruit. However, the cream was very bland and therefore does not suit my requirement of being part of a luxury dessert. The colour was also a pale colour, not standing out from the pastry ingredients. I do however like the idea of using vanilla as a natural flavouring.

### Views on Vanilla Pastry Cream



## Strawberry Ice Cream

### Ingredients

- 200g Strawberries
- 250ml Double Cream
- 50g Caster Sugar

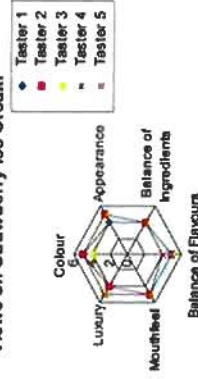
### Method

Process strawberries, blend until a purée. Stir in with cream and sugar and mix well. Pour mixture into ice cream machine.

### Summary

My tasting panel loved the twist on this fruit tartlet. The ice cream on top of the tart case gave the product a level of dimension unlike the other fillings. However, the main problem with this dessert was that the ice cream melted very easily. Therefore if I had to make this dessert for young professionals I would have to use additives. Another problem was that the fruit pieces would make the product look messy, therefore not a luxury dessert. However the creamy texture was commended.

### Views on Strawberry Ice Cream



## White and Dark Chocolate Mousse

### Ingredients

- 89g White and Dark Chocolate
- 56 ml Milk
- 112ml Double cream
- 56ml Crème Fraiche

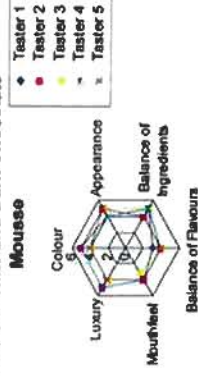
### Method

For both mousses, melt chocolate, for dark chocolate melt milk and white chocolate mix in crème fraiche. Fold in whipped cream and chill each mousse separately for 1 hour. Insert plastic strip to pastry to separate mousses. Remove once chilled.

### Summary

The contrast between the light and dark was thought of as professional. Even though this is a positive review, I think that it looks messy, especially where the two meet. I also thought that the dark chocolate mousse was too heavy compared to the white chocolate, therefore giving a poor mouthfeel. The pattern may also be too fussy when a topping is included. However, I do think that the colours look very effective together, and was very difficult to do.

### Views on White and Dark Chocolate Mousse



## Passion Fruit Mousse

### Ingredients

- 70g Passion Fruit
- 300ml Double Cream
- 125g Caster Sugar
- 300g Cream Cheese

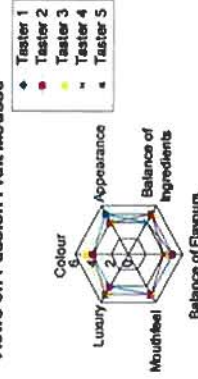
### Method

Fold whipped cream, cream cheese and sugar. Add passion fruit extract to mixture and stir well. Chill slightly. Pour into pastry case and chill again.

### Summary

This product was thought to have a creamy, light mouthfeel. Originally this filling was used in my cheesecake, and as my tasting panel thought of it as being very delectable, I have decided to use it once more in my tarts. The only criticism was with the presentation and that it looked messy in the tins. If I am to use this filling, I would research into different presentation methods. My tasting panel thought that this filling was very luxurious. To develop it even further, I would use passion fruit seeds in the mousse to add authenticity.

### Views on Passion Fruit Mousse



I have decided to produce the passion fruit mousse. The main reasons for this include that the mousse was thought of a light and fluffy texture and flavour whilst the product was still able to hold the desired shape through firmness. The passion fruit also compliments the walnut and ginger pastry. I have decided that the best way to present this product would be by transforming the pastry into the formation of a biscuit and placing the mousse on top. I am now going to research into toppings.

# Development of Toppings

Now I am going to research into the assortment of toppings which would contribute to the unusual design of my tartlets. The topping must also be suitable with the dessert and have a simple manufacturability

**Caramel**

**Ingredients**

- 100g Sugar
- 50ml Water

**Method**

Combine all of the ingredients into a heated pan and melt without stirring. Once heated sufficiently, transfer pan to a cool area; and using the back of spoons, create patterns and arches over a flat area covered in greaseproof as well as a rolling pin for the arches.

**Summary**

The caramel looked very effective, and there were many ways to present this specific topping. I have chosen to arch the caramel as this enhances the sophistication of the dessert. However, caramel can be unpredictable to work with, which could cause problems with industrial manufacture. The flavour of the caramel was very sweet which contrasts against the subtle flavouring of passion fruit in the mousse. Another disadvantage is that there are no obvious alterations with the aroma of the product. The use of an arch gave extra height to the product as well as creating unusual patterns.

**Views on Caramel**

**Views on Gelatine Layer**

**Chocolate**

**Ingredients**

- 50% Dark Cooking Chocolate

**Method**

Break the chocolate into small pieces, and melt in the microwave. After each 10 seconds, check and stir with a fork until forms a runny mass. Chill. Transfer into piping bag and use to create shapes on a flat surface covered with greaseproof paper. Chill until set. Peel off from paper and place onto dessert.

**Summary**

The chocolate looked very professional and creative. If I were to do this decoration again, I would use not only dark chocolate though also white chocolate to add colour to the product.

If repeating this, I would chose to do more abstract designs rather than the more conventional patterns of swirls and other simplistic shapes. Another disadvantage of using chocolate is that I found it difficult to make the stay in the desired shapes warmed. The chocolate did give a slight aroma and flavour, though not much texture. Next time I would make the chocolate thicker. In manufacture, I would be able to add a stabiliser to this.

**Views on Chocolate**

**Cream**

**Ingredients**

- 50ml Double cream, whipped

**Method**

Whip double cream with electric mixer until soft peaks are formed. Move ingredient into a piping bag to create small rosettes.

**Summary**

I felt that this looked too bland and did not add interest to the product. However, the main advantage of using cream is that it adds extra texture to the product. I also think that the cream makes the top of the dessert look messy and unprofessional. However, working with cream allows you to create different shapes with added volume. To develop the cream I could try using colour extracts and flavour extracts to allow the product to be more interesting without the product blending into the same colour as the mousse. The cream was difficult to use as it was very thick and there was also signs of syneresis from the weeping of water.

**Views on Cream**

**Gelatine Layer**

**Ingredients**

- 12g gelatine
- 30ml mango and orange smoothie
- ¼ teaspoon passion fruit

**Method**

Dissolve gelatine in water for 10 minutes. Pour into smoothie and stir. Add passion fruit, especially the seeds. Chill for 5 minutes. Pour onto top of mousse.

**Summary**

This topping allowed the product to show the influence of fruit, by the use of passion fruit seeds. Not only this, though the colours gave extra impact and variation to those used in the mousse. However, I do not like this choice because it made the top look messy and gave an uneven surface, as well as adding shine which I thought made the product look too artificial. Unlike some of the other topping ideas, this one looked bland and dull without any use of creativity. My taste panel did like the use of the seeds as it gave the product a more realistic effect.

**Views on Gelatine Layer**

I have decided to use the chocolate decoration, as I feel that this gives contrast to the lighter colours of both the mousse and pastry biscuit. I am also pleased with this decision, as I am therefore able to create the more abstract designs which will lend themselves to the more confined patterns of the plate decoration. Not only this, though chocolate gives an appetising aroma and a more solid taste experience compared to that of the passion fruit mousse. I am now going to research into plate decorations.



# Development of Plate Decoration

For my final development I am looking at plate decoration. Decoration is important in presenting the overall product in order to gain interest my consumers. As my specification says that our desserts are to be sold in cake shops and small patisseries, because of this the dessert must be well presented in order to obtain the title of luxury. I shall be looking at different methods of presentation, from small delicate details to the plate, to those containing a form of edible artwork. However, I will be analysing the aroma, texture, colour and flavour of each decoration.

**Cream Rosettes**

**Ingredients**

- 50ml double cream, whipped


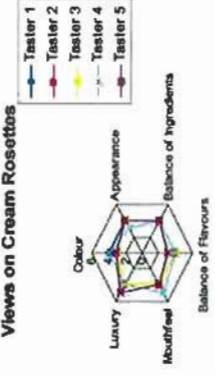
**Method**

Whip cream until soft peaks form. Chill slightly. Transfer into piping bag ready to create rosettes.

**Summary**

I thought that the cream did not add to the products appeal. The reason for this is because the colours were not striking enough unlike those of some of the other decorations. I also do not like the way that the cream hides the biscuit base, however this was the best way to present this particular adornment. The flavour was liked by some of my tasting panel, as it gave the product a creamy exterior. I do not think that I will be using this one even though the rosettes do look very tasteful. If I were to develop this further, would think about using natural fruit juice to add to the colour and flavour of the cream.

**Views on Cream Rosettes**

**Chocolate Curfs**

**Ingredients**

- 25g dark cooking chocolate


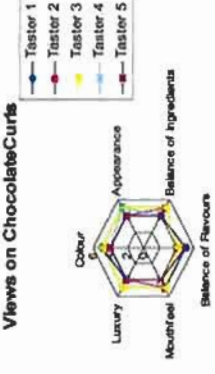
**Method**

The chocolate should be at room temperature. Using a vegetable peeler, shave down the side of the chocolate, creating small shavings.

**Summary**

The chocolate curfs looked effective though were difficult to create. I also thought that the curfs did not fill the plate respectively as I would hope. However, the chocolate from the dessert topping and the curfs would link well together to create a more definite aroma and flavour. The colour was also an advantage to the product as it gave contrast to the light colours used in the mousses. I do think that flooding the plate with chocolate would look more effective and give the product a sharper image. The only disadvantage was that it did not add any texture.

**Views on Chocolate Curfs**

**Caramel Pile**

**Ingredients**

- 100g sugar
- 50ml water


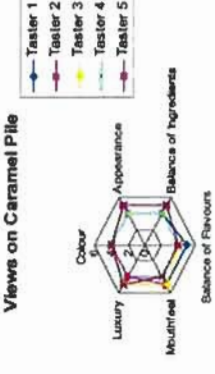
**Method**

Heat the sugar and water together without stirring. Once heated thoroughly, coat back of spoons and draw lines onto grease proof paper. Once cooled, place these onto the plate as decoration.

**Summary**

Even though the caramel made a delicate topping to the dessert, I do not think that it has the same milieu working on the plate. I say this as the caramel looked lost on the plate and did not include any fluency to the product. However, the taste did accompany those of the dessert well. I also liked the shapes that can be created and if developing further, would research into the more creative ways making the product look more delicate.

**Views on Caramel Pile**

**Fruit Sauce**

**Ingredients**

- 30ml orange and mango smoothie
- Arrowroot
- 15g Apricot jam

**Method**


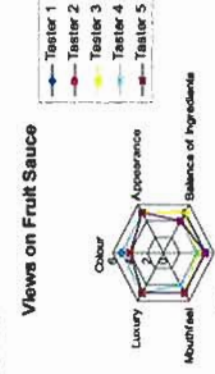
Melt the arrowroot and apricot jam together. Allow to cool slightly. Mix ingredients together and transfer into piping bag. Create patterns on plate.

**Summary**

This was the decoration that my taste panel enjoyed the most. The main reason for this was the shapes made and the touch of elegance and sophistication that it gave the product as a whole. However the weaknesses of this choice were that the sauce tasted too much the same as the mousse, meaning that there was no difference in the flavour given. I also liked the shapes used to apply the couli, especially the swirls to add context to the abstract designs of the chocolate topping.

The aroma from this sauce was also recognisable from the passion fruit.

**Views on Fruit Sauce**

I have decided to use the fruit sauce. However, instead of using passion fruit, I have made a decision to change the idea to include chocolate. The reason for this is because my dessert decoration (or topping) is made up of chocolate and I have therefore decided to link the two together to make the product more interesting instead of an overpowered of different flavours, colours and textures.

# Final Product

Now that I have chosen my favoured areas of each development, I am now to create my final product of the layered mousse with a walnut and ginger dessert pastry base. This product shall be matching my specification points well.

| Ingredients  |   | Development changes |  |
|--|---|---------------------|--|
| Pastry   | Filling   | Component           | Changes Made   |
| <ul style="list-style-type: none"> <li>75g plain flour</li> <li>50g butter</li> <li>30g caster sugar</li> <li>15g finely chopped walnuts</li> <li>¼ teaspoon ginger</li> </ul> | <ul style="list-style-type: none"> <li>2 passion fruits</li> <li>15 ml orange and passion fruit smoothie</li> <li>1 leaf gelatine</li> <li>125ml double cream</li> <li>75g cream cheese</li> <li>50 g caster sugar</li> </ul> | Pastry              | The original product was plain pastry in the form of a tart tin. Now the pastry is flavoured with walnuts and ginger and in the shape of a biscuit.  |
|  |   | Filling             | Originally a vanilla custard, I have changed the filling to include fruit and in the form of a mousse.   |
|  |   | Topping             | Before I had used seasoned fruit though now I have gone with abstract chocolate shapes.  |
|  |   | Decoration          | The only decoration that I had used was three grapes. Though now I have created a chocolate sauce.   |
|  |   |                     | Stronger flavour<br>Firmer pastry<br>Cheaper to produce<br>Increased texture<br>Thicker filling<br>Helps keep dessert shape<br>Improved flavour<br>Increased colour and appearance<br>Increased flavour<br>Added to products sweetness<br>Works well with chocolate topping<br>Increases flavour<br>Increases appearance |

### Walnut and Ginger Pastry

**Method**


Mix the flour, sugar, chopped walnuts and ginger together. Rub in the butter to resemble bread crumbs. Add water until mixture can be formed into a ball by hand. Chill. Roll out pastry and cut with correct sized biscuit cutters. Bake in the oven for 10 minutes. Remove. Place in switched off oven for a further 2 minutes or until pastry has turned to a golden brown colour. Leave to cool.



### Chocolate Shapes

**Method**

Place greaseproof paper over a chopping board; Heat dark cooking chocolate for 10 seconds. Cut the chocolate into manageable chunks and reheat for 30 seconds, after every 10, stir the chocolate to help melt. Pour mixture into piping bag; create shapes onto the greaseproof paper once the chocolate has cooled.



### Chocolate Sauce

**Method**


Put all ingredients into pan, mixing constantly bring up to the boil and reduce heat. Cook until the sauce begins to thicken and becomes glossy.



### Passion Fruit Mousse

**Method**

Whisk the whipped cream. Fold the whipped cream into cream cheese and sugar, add the juice of two passion fruit. Chill. Add gelatine to cold water and leave to dissolve. Heat the smoothie for 10 seconds. Add gelatine to smoothie. Add gelatine to chilled mixture. Chill. Create collars to fit into moulds. Pour mixture into moulds, making sure the tops are smooth. Refrigerate overnight. Assemble onto the tops of the biscuit base.



### Matches to Specification

- ✓ Luxury Dessert
- ✓ Special Occasion
- ✓ Variety of Flavours
- ✓ Varied Texture
- ✓ Young Professionals
- ✓ Decoration
- ✓ Reasonable Price
- ✓ Include fruit
- ✓ Suitable Size and Shape
- ✓ Easily Manufactured

My final product matched all of my specification points. As well as this, my dessert was commended on using high quality ingredients, therefore increasing the luxuriousness of the dessert. The presentation of the mousse tarts was also thought to be exceptional. The texture of the pastry worked well against the smoothness of both mousse and chocolate decorations. The dessert was of a good size and shape, meaning that packaging the product would be much easier and simpler. However, as I had used high quality ingredients, the price of the product is higher than first thought; though still comes under the maximum allowed.

**Final Product**





**Colour**

- 1 - Tester 1
- 2 - Tester 2
- 3 - Tester 3
- 4 - Tester 4
- 5 - Tester 5



# Manufacture Specification

## Name of Product

Walnut and ginger pastry biscuit base with passion fruit mousse decorated with chocolate.

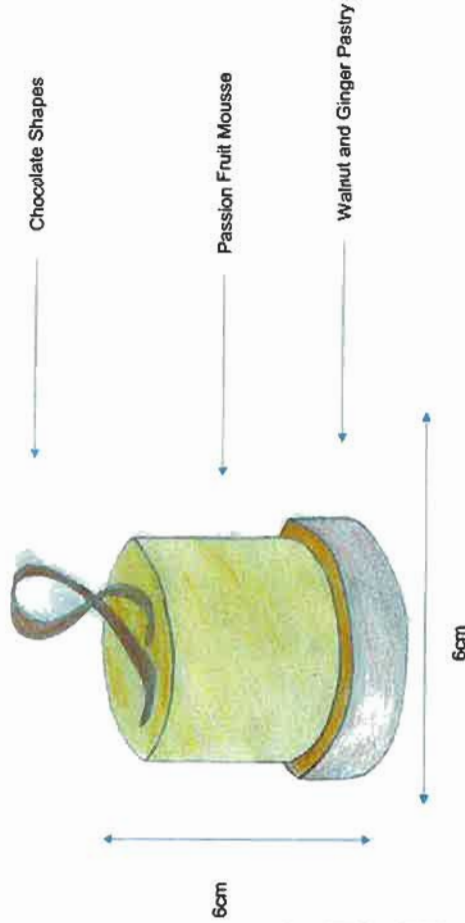
## Product Code

In the food industry, each product has a different code. If a product is to be varied, then the code will have a common base. This is so the product can easily be recognised.

## Name and Address of Manufacturer

This allows the consumer to trail where abouts the product is made. This is especially useful for complaints, suggestions and feedback. As my product will not be sold, I have created a fake name and address.

## Specific Dimensions of Product



## Special Tolerances

Diameter of dessert 5cm

Height of dessert 6cm

Pastry weight per individual biscuit is 40g ± 5g

Filling weight 75g ± 5g

## Standards to which the finished product must conform

### Physical standards

All of the components involved must be controlled with colour charts. This is to ensure that the quality of each product is equal. This will also include consistency, shape and size.

### Walnut and Ginger Pastry Passion Fruit Mousse



### Analytical

I would make sure that the desserts will be constantly monitored. This is to make sure that the specification is met, not only this, though, more essentially, that a gap in the market will be filled by my creations. Taking this into consideration, as well as an understanding of the target audience; I will have to make sure that the dessert is both of an appealing design enclosed within informative packaging.

### Organoleptic

During the stages of manufacturing, tests will be taken to that the dessert appeals to my target group of young professionals. This will be done by using taste testers who will assess the different aspects of the products. These areas will include the flavour, texture, appearance and balance of ingredients and flavours. The products must be assessed using a pilot scale, to ensure that it is suitable for large scale production.

### Microbiological

Within this set of standards, I should consider the storage in both occasions, these being the storage of raw ingredients before being used as well as the final desserts ready for transportation. The fresh ingredients, including the passion fruit, should be kept at a low temperature to keep the ingredients as fresh as possible; whilst the canned products such as flour and spices should be stored at room temperature.

### Nutritional Data

This should be clearly shown on the packaging. Due to new health regulations, the percentage of saturate, calories and salt should be shown clearly compared to that of the recommended allowance.

### Product Selling Weight

This shall be a maximum weight of 150g and a minimum weight of 100g for each portion size. This is to make sure that the products can be easily transported and handled by consumers.

### Packaging Detail

The packaging will be made out of cardboard which can be recycled, whilst there will also be a transparent film covering the top side. This is so the consumer is able to see what they are to buy.

### Shelf Life

My product can be refrigerated for a maximum of 3 days if kept at a temperature of 4°C.

### Health and Safety Requirements

As the products include high risk ingredients, they will need to be refrigerated straight after purchase. During the manufacturing process, all employees should abide to the health and safety regulations; and must wear protective equipment such as hair nets and hats, gloves and coat throughout. Dairy products need to be kept chilled to reduce chances of salmonella. All ingredients need to be used before expiry date.

## List of Ingredients

| Pastry   | Filling   | Topping  | Decoration   |
|--|---|--|--|
| <ul style="list-style-type: none"> <li>75g plain flour</li> <li>50g butter</li> <li>30g caster sugar</li> <li>15g finely chopped walnuts</li> <li>¼ teaspoon ginger</li> </ul> | <ul style="list-style-type: none"> <li>2 passion fruits</li> <li>15 ml orange and passion fruit smoothie</li> <li>1 leaf gelatine</li> <li>125ml double cream</li> <li>75g cream cheese</li> <li>50 g caster sugar</li> </ul> | <ul style="list-style-type: none"> <li>Chocolate shapes</li> <li>50 g chocolate</li> </ul> | <ul style="list-style-type: none"> <li>Chocolate sauce</li> <li>25 g coco powder</li> <li>25 g brown sugar</li> <li>75ml single cream</li> <li>2 drops vanilla essence</li> <li>1 tbsp golden syrup</li> </ul> |

All ingredients are to be bought in bulk. This means that the cost will be kept as low as possible. I must by all ingredients from a reputable supplier to ensure safety and quality with my products.

# Product Manufacture

# Criterion G Manufacture

## Product 1

### Pastry biscuit and passion fruit mousse

#### Skills, Processes and Techniques

##### Short crust pastry

These skills include: Ratio of Ingredients, Rubbing Mixture Together, Handling, Rolling Out, Cutting into required shapes.

##### Passion fruit Mousse

These skills include: Work with gelatine, Thickening of Mixture.

##### Chocolate Decorations

These skills include: Melting of Chocolate, Chilling, and Shaping. Chocolate Sauce

These skills include: Melting of Chocolate, Piping.

#### Ingredients and their Functions

##### Pastry

75g Plain Flour - Starch swells and gelatinises forming crumbly, short texture whilst the pastry is baking.

25g Caster Sugar - Sweetens the pastry and gives a good texture.

50g Butter - The butter melts and is absorbed by the flour. Acts as a shortening agent as well as giving colour and flavour to the tarts.

2 tsp Cold Water - The water hydrates the flour particles and forms gluten strands which bind the pastry together.

1/4 teaspoon Ginger - Adds flavour to the pastry as well as a slight variation in colour

15g Chopped Walnut - Adds flavour and texture to the product.

##### Mousse

70g Passion Fruit - Passion fruit is used to add the main flavour. It also adds colour and makes the product more appealing.

300ml Double Cream - Helps to thicken the filling mixture and provides a smooth mouthfeel.

125g Caster Sugar - Sugar is used to sweeten the product and helps with the overall texture.

300g Cream Cheese - This is used as a main component of the filling. It provides a creamy mouthfeel. As well as adding flavour to the product.

2 Gelatine leaves - Gelatine help the mixture to set; aids the dessert to stay together for appearance.

##### Decoration

50g Dark Cooking Chocolate - This is used to create the chocolate shapes. Cooking chocolate melts best to create a rich flavour and texture.

25 g coco powder - Adds the flavour to the sauce as well as the colour.

25 g brown sugar - Sweetens the product and helps with the overall texture.

75ml single cream - helps thicken the sauce and provides a smooth mouthfeel.

2 drops vanilla essence - Adds a variance in flavour.

1 tsp Golden Syrup - Adds flavour and mouthfeel also used to thicken the sauce.

#### Design Brief

Design and make a luxury dessert that would appeal to young professionals and be suitable for serving at a celebration meal.

#### Design Criteria

- The product must be aimed at young professionals
- The product must be a luxurious dessert that reflects quality and has an excellent appearance
- The portion size should weigh between 100g – 150g per person
- The product should have a good balance of textures from component parts of the dessert
- The product must have an excellent variety of flavours
- The product must be free from artificial additives and colouring
- The product must be decorative and appealing
- The product should cost a maximum of £2.00 per portion
- The product will have a shelf life of up to 3 days, stored in a chilled environment of 4°C.

I have decided to make two different desserts both of which should fit the specification equally. The first product that I am to create is a walnut and ginger pastry biscuit base with a passion fruit mousse decorated by chocolate decorations and a rich chocolate sauce. The second product will be a creamy meringue nest with a deep Chantilly cream decorated by summer fruits of raspberries and blueberries with a caramel cage and caramel spirals.

These products shall match the points in my specification. Both products shall be luxurious using high quality ingredients with the use of decoration with rich and decadent ingredients. The two desserts shall be suitable for purchase by young professionals.

I will be including many different skills and techniques to aid the manufacturing process. Though I will still be considering each of the functions of all ingredients and how the create an excellent mouthfeel by working with one another.



## Product 2

### Summer fruit meringues with Chantilly cream

#### Skills, Processes and Techniques

##### Meringue

These skills include: Whisking the ingredients together, Piping the bases – including the rosettes to create a tower like structure; use of electric mixer. Chantilly Cream piping

These skills include: Whisking the ingredients together without curdling, Piping the mixture into the meringues; Use of electric whisker.

##### Caramel

These skills include:

Caramelisation of the sugar, Creating bridges, Caramel shards, Caramel bridges, Caramel spirals.

#### Ingredients and their Functions

##### Meringue Base

3 medium eggs whites - Creates a gloss to the dessert, stabilizes the mixture and helps the other ingredients to combine together.

175g Caster Sugar - Sweetens the meringue mixture and gives a goof texture.

1 tsp Corn Flour - Gives the meringue mixture a coarse, dense texture and also gives a slight amount of flavour.

1tsp vinegar – The vinegar stabilises the meringue, this makes the meringue a softer texture.

##### Chantilly Cream

150ml double cream - Gives thickness to the Chantilly cream as well as a creamy mouthfeel. Helps ventilate the cream

1 tsp icing sugar - This sweetens the cream and add to the texture;

Adds a variation to the mouthfeel.

1 tsp vanilla essence - The use of this is to add flavour to the cream, this increases the flavour release and also the mouthfeel of the dessert.

##### Caramel Cage

150ml water – Aids Caramelisation

300g Caster Sugar - This adds sweetener to the product, and helps the colour to transform from a translucent white into a brown shade

Overall the caramel adds colour and flavour to the dessert.

##### Summer Fruits

100g raspberries - Adds flavour and colour to the meringues, also helps improve the overall texture and freshness.

100g blueberries – Adds colour to the appearance and both flavour and texture to the taste. The fruit make the meringue more suitable for the summer seasons.



# Final Product

Now that I have chosen my favoured areas of each development, I am now to create my final product of the layered mousse with a walnut and ginger dessert pastry base. This product shall be matching my specification points well.

| Ingredients  |   | Development changes |   |
|--|---|---------------------|---|
| Pastry   | Filling   | Component           | Changes Made  |
| <ul style="list-style-type: none"> <li>75g plain flour</li> <li>50g butter</li> <li>30g caster sugar</li> <li>15g finely chopped walnuts</li> <li>½ teaspoon ginger</li> </ul> | <ul style="list-style-type: none"> <li>2 passion fruits</li> <li>15 ml orange and passion fruit smoothie</li> <li>1 leaf gelatine</li> <li>125ml double cream</li> <li>75g cream cheese</li> <li>50 g caster sugar</li> </ul> | Pastry              | The original product was plain pastry in the form of a tart tin. Now the pastry is flavoured with walnuts and ginger and in the shape of a biscuit.   |
|  |   | Filling             | Originally a vanilla custard, I have changed the filling to include fruit and in the form of a mousse.  |
|  |   | Topping             | Before I had used seasoned fruit though now I have gone with abstract chocolate shapes.   |
|  |   | Decoration          | The only decoration that I had used was three grapes. Though now I have created a chocolate sauce.  |
|  |   |                     | Stronger flavour<br>Firmier pastry<br>Cheaper to produce<br>Increased texture<br>Thicker filling<br>Helps keep dessert shape<br>Improved flavour<br>Increased colour and appearance<br>Increased flavour<br>Added to products sweetness<br>Works well with chocolate topping<br>Increases flavour<br>Increases appearance |

## Walnut and Ginger Pastry

### Method

Mix the flour, sugar, chopped walnuts and ginger together. Rub in the butter to resemble bread crumbs. Add water until mixture can be formed into a ball by hand. Chill. Roll out pastry and cut with correct sized biscuit cutters. Bake in the oven for 10 minutes. Remove. Place in switched off oven for a further 2 minutes or until pastry has turned to a golden brown colour. Leave to cool.



## Chocolate Shapes

### Method

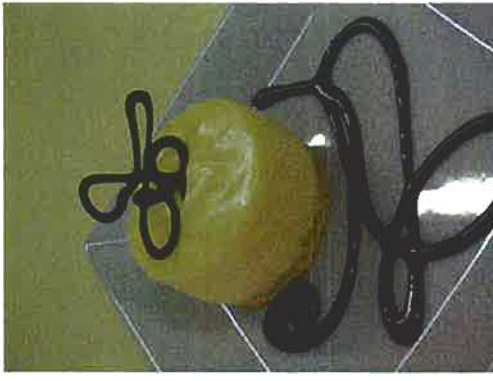
Place greaseproof paper over a chopping board; Heat dark cooking chocolate for 10 seconds. Cut the chocolate into manageable chunks and reheat for 30 seconds, after every 10, stir the chocolate to help melt. Pour mixture into piping bag; create shapes onto the greaseproof paper once the chocolate has cooled.



## Passion Fruit Mousse

### Method

Whisk the whipped cream. Fold the whipped cream into cream cheese and sugar; add the juice of two passion fruit. Chill. Add gelatine to cold water and leave to dissolve. Heat the smoothie for 10 seconds. Add gelatine to smoothie. Add gelatine to chilled mixture. Chill. Create collars to fit into moulds. Pour mixture into moulds, making sure the tops are smooth. Refrigerate overnight. Assemble onto the tops of the biscuit base.



### Matches to Specification

- ✓ Luxury Dessert
- ✓ Special Occasion
- ✓ Variety of Flavours
- ✓ Varied Texture
- ✓ Young Professionals
- ✓ Decoration
- ✓ Reasonable Price
- ✓ Include fruit
- ✓ Suitable Size and Shape
- ✓ Easily Manufactured

My final product matched all of my specification points. As well as this, my dessert was commended on using high quality ingredients, therefore increasing the luxuriousness of the dessert. The presentation of the mousse tarts was also thought to be exceptional. The texture of the pastry worked well against the smoothness of both mousse and chocolate decorations. The dessert was of a good size and shape, meaning that packaging the product would be much easier and simpler. However, as I had used high quality ingredients, the price of the product is higher than first thought, though still comes under the maximum allowed.



# Manufacture Specification

## Name of Product

Walnut and ginger pastry biscuit base with passion fruit mousse decorated with chocolate.

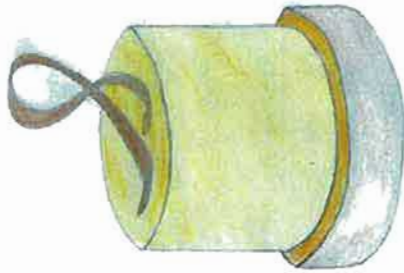
## Product Code

In the food industry, each product has a different code. If a product is to be varied, then the code will have a common base. This is so the product can easily be recognised.

## Name and Address of Manufacturer

This allows the consumer to trail where abouts the product is made. This is especially useful for complaints, suggestions and feedback. As my product will not be sold, I have created a fake name and address.

## Specific Dimensions of Product



6cm

Chocolate Shapes

Passion Fruit Mousse

Walnut and Ginger Pastry

## Special Tolerances

Diameter of dessert 5cm  
Height of dessert 6cm  
Pastry weight per individual biscuit is 40g ± 5g  
Filling weight 75g ± 5g

## Standards to which the finished product must conform

### Physical standards

All of the components involved must be controlled with colour charts. This is to ensure that the quality of each product is equal. This will also include consistency, shape and size.

Walnut and Ginger Pastry      Passion Fruit Mousse



Chocolate Shapes      Chocolate Sauce



### Analytical

I would make sure that the desserts will be constantly monitored. This is to make sure that the specification is met, not only this, though, more essentially, that a gap in the market will be filled by my creations. Taking this into consideration, as well as an understanding of the target audience, I will have to make sure that the dessert is both of an appealing design enclosed within informative packaging.

### Organoleptic

During the stages of manufacturing, tests will be taken to that the dessert appeals to my target group of young professionals. This will be done by using taste testers who will assess the different aspects of the products. These areas will include the flavour, texture, appearance and balance of ingredients and flavours. The products must be assessed using a pilot scale, to ensure that it is suitable for large scale production.

### Microbiological

Within this set of standards, I should consider the storage in both occasions, these being the storage of raw ingredients before being used as well as the final desserts ready for transportation. The fresh ingredients, including the passion fruit, should be kept at a low temperature to keep the ingredients as fresh as possible; whilst the canned products such as flour and spices should be stored at room temperature.

### Nutritional Data

This should be clearly shown on the packaging. Due to new health regulations, the percentage of saturate, calories and salt should be shown clearly compared to that of the recommended allowance.

### Product Selling Weight

This shall be a maximum weight of 150g and a minimum weight of 100g for each portion size. This is to make sure that the products can be easily transported and handled by consumers.

### Packaging Detail

The packaging will be made out of cardboard which can be recycled, whilst there will also be a transparent film covering the top side. This is so the consumer is able to see what they are to buy.

### Shelf Life

My product can be refrigerated for a maximum of 3 days if kept at a temperature of 4°C.

### Health and Safety Requirements

As the products include high risk ingredients, they will need to be refrigerated straight after purchase. During the manufacturing process, all employees should abide to the health and safety regulations; and must wear protective equipment such as hair nets and hats, gloves and coat throughout. Dairy products need to be kept chilled to reduce chances of salmonella. All ingredients need to be used before expiry date.

## List of Ingredients

| Pastry   | Filling   | Topping  | Decoration   |
|--|---|--|--|
| <ul style="list-style-type: none"> <li>75g plain flour</li> <li>50g butter</li> <li>30g caster sugar</li> <li>15g finely chopped walnuts</li> <li>¼ teaspoon ginger</li> </ul> | <ul style="list-style-type: none"> <li>2 passion fruits</li> <li>15 ml orange and passion fruit smoothie</li> <li>1 leaf gelatine</li> <li>125ml double cream</li> <li>75g cream cheese</li> <li>50 g caster sugar</li> </ul> | <ul style="list-style-type: none"> <li>Chocolate shapes</li> <li>50 g chocolate</li> </ul> | <ul style="list-style-type: none"> <li>Chocolate sauce</li> <li>25 g coco powder</li> <li>25 g brown sugar</li> <li>75ml single cream</li> <li>2 drops vanilla essence</li> <li>1 tbsp golden syrup</li> </ul> |

All ingredients are to be bought in bulk. This means that the cost will be kept as low as possible. I must by all ingredients from a reputable supplier to ensure safety and quality with my products.

# HACCP

In the food manufacturing industry HACCP is an essential control system. This system assesses the possible hazards that may occur during the manufacture of a food product. The hazard is recognised and then a preventative measure is put in place to stop the problem arising. The tables below show the hazards that may occur during my production process. I have also included controls that need to be put in place to ensure the product is safe to eat, and of a high quality.

| QUALITY CONTROL   | TIME | PROCESS INCLUDING TIMINGS  | HACCP  |
|---|------|--|--|
| Check use by dates. Check fruits are in good condition.   | 1.30 | Weigh out ingredients. Assemble equipment. Chop walnuts  | Wash hands using antibacterial hand wash. Ingredients to be bought in from a reputable supplier. This ensures consistency and quality of ingredients. Store cream cheese, and cream in refrigerator at 4C.             |
| Check electronic scales are accurate  | 1.40 | Make walnut and ginger pastry: rub in fat and flour until mixture resembles bread crumbs, add walnuts and ginger and mix with egg yolk until soft, rich dough is formed.   | Ingredients to be bought in from a reputable supplier. This ensures consistency and quality of ingredients. Check use by dates on ingredients.   |
| Pastry must be evenly rolled to ensure a level surface. I have used a larger cutter for the biscuit base as shrinkage occurs during the cooking process.                | 1.50 | Roll out the dough evenly and cut into round, smooth shape using an 8cm diameter cutter.   | Make sure surface is clean and free from contaminants, which could be transferred into the food substance.   |
| Check oven temperature is correct to prevent burning or under cooking of the product  | 2.00 | Bake for 10 - 15 minutes at 180C.  | Take care when putting the biscuits into the hot oven, using oven gloves, to protect hands from serious burns.   |
| Take care not to over whisk the cream as it will curdle.  | 2.05 | Whip cream and fold the into the cream cheese and sugar mixture.   | Check electric whisk for any loose parts as otherwise electrical components could cause unrecognised contaminants, and health problems if digested.  |
| I have chosen only to use some of the passion fruit seeds because if I were to use all of them the texture of the mousse would be gritty.                               | 2.10 | Cut two passion fruit in half and remove juice and seeds. Soak gelatine leaves in cold water for 5 minutes. Heat the smoothie and passion fruit juice for 20 seconds.  | Take care when handling the knife as the sharp edge could cause injury, and therefore human contaminants, such as blood.   |
| Biscuits should be of a pale golden colour, use colour chart to check   | 2.15 | Check biscuits are cooked and remove from oven. Allow to cool on a cooling rack.   | Take care when removing the biscuits from the oven, as the baking tray would be hot, causing injuries to the hands. Also make sure that the cooling rack is secure in the middle of the work space, to avoid spillage. |
| Make sure excess water is removed otherwise it could effect the consistency of the mousse.  | 2.16 | Squeeze excess water from gelatine and add to the smoothie mixture and chill until partially set (approximately 15 minutes.)   |  |
| Ensure cutting is accurate and that the biscuits do not brake.  | 2.20 | Create collars to fit into moulds by cutting strips of greaseproof paper 16cm x 6cm. Cut biscuits using 6cm cutter and place into moulds.  | Make sure greaseproof paper is free from any contaminants which could be transferred to the dessert.   |
| Make sure the passion fruit mixture is partially set and not too runny as it will run out from the moulds.  | 2.25 | Pour partially set passion fruit mixture into moulds. Make sure the surface is smooth and level. Chill until mixture is firm.  | Avoid spilling mixture. Chilling should take place between 0C and 5C.  |
| Do not over heat the chocolate as it could burn. Make sure it is the correct consistency for piping. Make sure shapes are the appropriate size for the dessert.         | 2.35 | Melt chocolate for decoration. Allow cooling and thicken slightly, pipe artistic shapes on to the greaseproof paper. Put in fridge to chill and set.   | Ensure all equipment is clean and free from contamination. Check use by date on chocolate.   |
| Take care not to burn the mixture, as it contains a high amount of sugar. Make sure the mixture is stirred continuously to prevent lumps from forming.                  | 2.50 | Make chocolate sauce: weigh out sugar, cocoa powder, syrup and cream. Add to sauce pan and bring to the boil for 2 minutes, and then reduce the temperature. Simmer gently for 5 minutes until the sauce is dark and glossy. | The sauce mixture reaches a very high temperature due to the syrup. Take care not to burn fingers.   |
| Check firmness of mousse by giving the mould a gentle shake; if it is not set enough it will not hold its shape and therefore the dessert would not be of high quality. | 3.10 | Check to see if mousse has set. If firm, remove from fridge and gently remove greaseproof collars.   |  |
| Check consistency of chocolate sauce to ensure it is appropriate for piping. Make sure piping is carried out accurately to prevent any mess on the plate.               | 3.15 | Place individual dessert onto the plate. Pipe chocolate sauce onto the presentation plate. Arrange chocolate decoration.   | Ensure plate is thoroughly clean and dry. Check piping equipment is clean.   |
|   | 3.25 | Wash equipment and put away. Clean surfaces.   | Clean all surfaces thoroughly to make sure that all contaminants during the making of the product have been cleaned.   |



# Product Manufacture

The photos below show the process of making Walnut and Ginger Pastry with a Passion Fruit Mousse decorated with chocolate shapes and a chocolate sauce

1



Cut the walnuts finely, and add to the pastry mixture along with the ginger.

2



Slice the butter and add to the flour.

3



Rub in the mixture until it resembles bread crumbs. Add water.

4



Roll the pastry on a floured surface. The pastry should be shaped as a circle.

5



Using the right size cutter, cut equal circles out of the pastry. Prick bases with a fork, cook.

6



To make the mousse, weigh out the ingredients.

7



Whisk the cream until soft peaks form.

8



Fold in the cream to the cheese and sugar.

9



Cut open the passion fruit and scoop out the inside pulp.

10



Sieve the passion fruit so to be left with the juice.

11



Use some of the passion fruit seeds to make the product look realistic.

12



Pour the passion fruit into the mousse mixture.

13



Soak the gelatine and add to the mango smoothie.

14



Pour the smoothie into the mixture.

15



Line each ring with butter and greaseproof paper.

16



Place greaseproof paper inside mousseline rings.

17



Pour the mousse into each ring, making sure to line it evenly.

18



Cut the chocolate into blocks and heat in microwave.

19



Heat the chocolate in the microwave for 30 seconds

20



Pipe the chocolate into shapes on greaseproof paper. Chill.

21



Heat the ingredients to make the chocolate sauce.

22



Remove from fridge, and peel off greaseproof paper.

23



Pipe the chocolate sauce onto the presentation plate.



The final product ~ Walnut and ginger pastry base with a passion fruit mousse tower. Decorated with chocolate shapes and a chocolate sauce.

The photographs below show the process of making meringue nests with Chantilly cream with fresh fruit and caramel top cage.

## Product Manufacture

1



Mechanically whisk egg whites.

2



Whisking the whites from eggs to form a thicker substance.

3



Further whisking until egg white becomes thicker. Formation of soft peaks

4



Hold the bowl a bowe head to check the firmness.

5



Gradually whisking in sugar.

6



7



Sift the corn flour into mixture

8



Pour white wine vinegar into mixture and fold with a metal spoon

9



Line a large baking sheet. Stencil circles for where to place meringue nests.

10



Using a piping bag, pour the mixture into the casing.

11



Pipe the bases of the meringues.

12



After creating the bases, pipe upwards to create rosettes.

13



Cook in the pre heated oven. This should take 40 to 50 minutes; or until mixture is hard.

14



Whisk the cream until soft peaks form. This is for the Chantilly cream.

15



Sift the icing sugar into the Chantilly mixture,

16



Mix in the vanilla essence,

17



In a pan, add sugar and water to make the caramel.

18



Bring the caramel to boil without stirring. When ready the colour will change to golden brown.

19



Cover a small bowl with aluminium foil and grease with oil.

20



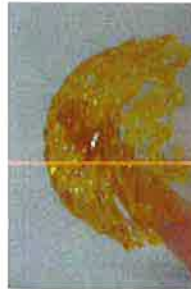
Create a lattice with the caramel over the foiled bowl.

21



Once the caramel has set, carefully peel away the foil.

22



Place the cages on top of the meringues, making sure not to break it.

23



With the remaining caramel, create curled spirals for decoration.

The final product - summer fruit meringues with Chantilly cream, covered with a caramel cage

# Technical Data

10/10/2020, 11:05 AM

I need to ensure that a profit is made once my product is sold; therefore I need to take into account the following factors:

- Cost of ingredients
- Cost of marketing and promoting the product
- Labour costs
- Heating, lighting and water costs
- Costs incurred by ensuring a quality product is made
- Cost of packaging if it is required
- Cost of making a profit

If this product were to be manufactured in bulk, then ingredients could be bought in large quantities therefore making the costs cheaper. Larger batches also mean that machinery costs are lower. The following formula can be used to set the selling price of the finished product.

Figure 20.14: Production of 100kg of Bulk Chocolate with Ingredients and Pricing

Source: Author (2019), p. 25-26

Scaling up

If my product were to be manufactured in bulk, the ingredients would need to be increased. The table below shows the ingredients required for one product and also if it were to be scaled up x 100.

| Ingredient        | x 1 g/mls | x 100 |
|-------------------|-----------|-------|
| <b>Pastry</b>     |           |       |
| Plain flour       | 15        | 1.5kg |
| Caster sugar      | 10        | 1kg   |
| Butter            | 10        | 1kg   |
| Walnuts           | 5         | 500g  |
| Ginger            | 3         | 300g  |
| <b>Filling</b>    |           |       |
| Cream cheese      | 25        | 2.5kg |
| Double cream      | 25        | 2.5l  |
| Passion fruit     | 25        | 2.5l  |
| Smoothie          | 25        | 2.5l  |
| Gelatine          | 5         | 500g  |
| <b>Sauce</b>      |           |       |
| Brown sugar       | 5         | 500g  |
| Cocoa powder      | 5         | 500g  |
| Syrup             | 5         | 500g  |
| Cream             | 10        | 1l    |
| <b>Decoration</b> |           |       |
| Chocolate         | 15        | 1.5kg |

Ingredients

Most of the ingredients that I used would be available to buy in bulk. However, the passion fruit would not be available all year round without it being transported from distant countries. This means that they will cost more; therefore meaning that there is no consistent price for my dessert.

My dessert should have both a varied texture and flavour from the different components used. This includes the comparison between the crisp pastry base, full of flavour from the walnuts and ginger; contrasted against the smoothness from the creamy mousse, with the refreshing hint of passion fruit. All of which contrasts against both chocolate shapes making up the topping and the chocolate sauce decorating the plate. Both of these give a rich, exuberant sense to the product. The two decorations work well with the mousse because it enhances the silkiness of each component. The aroma is full of different experiences; rich in chocolate and syrup, subtle with the ginger spice. The slight hint of passion fruit gives the product the sense of freshness. The appearance of the dessert should show contrasts in different shades, light and dark; the lightness of the mousse compared to that of the dark chocolate sauce. The overall appearance shows quality in detail.

Overview of the Dessert Design

1. Aim  
Computer Aided Design

CAD is a system used in designing and making the packaging as well as the layout, information (including nutrition) and design of the product. The net for the packaging can be designed on a computer and this information is transmitted to a card cutting machine; which controls the cutting of the packaging shape for assembly. The net is the flattened shape which, when cut out and folded, can be made into a solid shape.

The benefits of using CAD include:

- greater accuracy
- gives a professional finished result
- work can be changed eg nutritional modelling of a product or ideas for packaging

If this was all my product, the design might have been developed in CAD, however, the design is not complete.

1. Aim  
Computer Aided Manufacture

CAM is the use of computer aided devices, which help increase the production and manufacture of food products. CAM is now widely used throughout the food industry, as many of the machinery used for each process of the food manufacture, are now controlled by computers.

These machines for my dessert can include:

- weighing and measuring
- rolling
- cutting
- depositing
- enrobing
- decorating



Depositing machine



Industrial Mixer



Electronic Scales



Travelling Oven

My main focus is creating a production line for making my dessert. The production line will be a continuous line that will be used for the production of the dessert. The production line will be a continuous line that will be used for the production of the dessert.

Robotics

This is machinery used to copy human tasks. It may be used in dangerous circumstances where it is too hot or fragile for humans to touch.

Some of the most common types of robots used in the food industry are:

# Testing and Sensory Analysis

Now that I have recently made the final edition of my product, I am going to devise a tasting panel for each stage of the production involved. I have asked a total of 5 people to try my product, all of which have been involved with each stage of analysing my products. Each of the titles has been used of each section, to ensure a fair and reliable test. I believe that the maximum was a sufficient amount, as I was able to gather different opinions on where to improve.

## Walnut and Ginger Pastry

### Summary

The pastry base was both firm and crisp, adding texture to the product.

Both the walnuts and the ginger spice gave flavour to the pastry, this I thought ideal; because the extra components added luxury to the product rather than keeping the pastry plain and uninteresting.

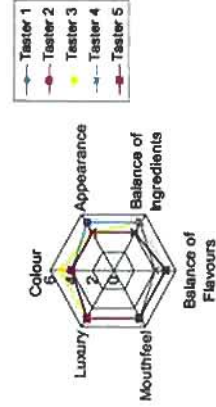
The ginger gave colour to the product, even though this was limited.

My tasters thought that there should be an increased amount of walnuts and that the ones used should have been chopped into smaller size.

I would also make the pastry bases slightly bigger as my tasting panel thought that this would suit the dessert more. Before creating my final product, I was worried that the walnut and ginger pastry would collide against the flavours of the mousse; luckily this was not the case as both worked well together.

If developing the pastry further, I would look at using other spices with the walnuts, or even including dried fruit pieces into the mixture; as this would provide improved texture and colour. However, the flavour may be distorted.

### Views on Walnut and Ginger Pastry



## Passion Fruit Mousse

### Summary

The product had a creamy mouth feel. However, my tasting panel thought that the mousse was too heavy because of the amount of ingredients used, especially sweeteners.

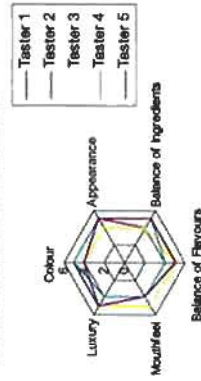
The colour of the mousse was much preferred than that of the development. This is because the shade of yellow was much lighter and worked well with the pale shades of the walnut and ginger pastry. I also think that the yellow colour worked well against the darkness of the chocolate decorations.

My tasters thought that there was enough passion fruit to present the main flavour of the mousse; and that if any more had been added then the mousse would be too overpowering.

The seeds in the mousse gave authenticity to the product; the seeds also gave natural sweetness to the mousse.

If I were to develop the filling further, I would research into using other tropical fruits to aid the performance of the passion fruit. For example I could use mango or banana, depending on the season of ripeness.

### Views on Passion fruit Mousse



## Final Product

### Walnut and Ginger Pastry Base with a Passion fruit Mousse with Chocolate decorations of shapes and sauce.

### Summary

Overall my tasting panel enjoyed the different sensations from each of the components.

However, I think that I would have used different methods of decoration, as some of the chocolate shapes did not look professional.

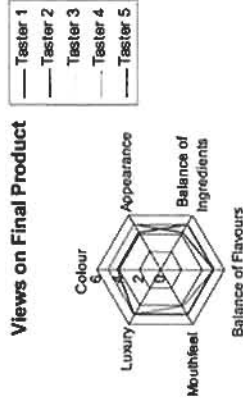
My tasting panel liked the uniformity of the decoration, as both the chocolate pieces linked together well.

I liked how both the pastry and the mousse worked well together by giving contrasting flavours and textures; I also liked how the mousse sat on top of the pastry instead of inside. This is because the added dimensions in height made the product stand out more against other tarts on the market. My tasting panel also liked this concept, thinking that it was unusual and unique.

Next time I produce this product, I think that I would use more passion fruit seeds, as the ones that I had added since my development was not enough and the mousse still seemed to lack detail.

I am glad how the presentation worked out as the shapes created from the chocolate sauce looked very professional.

### Views on Final Product



# Evaluation and Testing

## Product 1

For the next stage of manufacture, I am going to research into the different aspects of the processes needed for my product to be made. I will be evaluating these sections.

### Quality Assurance

A light and creamy mousse delicately flavoured with fresh passion fruit on a pastry base flavoured and textured with ginger spice and chopped walnuts; topped with abstract rich, dark chocolate shapes. The dessert, as a whole, was served on a plate already drizzled with a lavish, gooey chocolate sauce.

### Consistency

There are several tolerances to be maintained throughout. The amount of flavouring used, such as the ginger and walnuts, can be carefully measured to ensure that all of the pastry bases have the same flavour and texture. It will also be necessary to be accurate with the thickness of the pastry. Colour tolerances can be used for the main components to ensure that the colour of the mousse remains consistent. The amount of mousse needs to be measured before placing onto the base. The chocolate shapes would need to be made in a regular mould, to make sure that they are all of the same style and shape. The topping decorations would also need to be counted before placed on top. The amount of chocolate sauce drizzled onto the plate would also need to be measured and placed accurately, which could be difficult to maintain the same pattern throughout.

### Tasting

All of the products that have been created have been tested by the same people, giving the product consistency. From the feedback I received, I was then able to choose my final product through the development investigations.

### Ingredients - Food safe moulds

My product contained nuts from those used in the pastry bases. Therefore I would have to make this clear on the packaging of the product. As well as this, the products would have been made in a nut free environment. Also the dessert would not be suitable for vegetarians as pork gelatine was used in the passion fruit mousse as a stabiliser.

### Monitoring, Durability, and Sustainability of Ingredients

I would be able to monitor the freshness of the ingredients by monitoring the suppliers and their stock. To make sure that I use the highest quality of ingredients, I will research into using a reputable supplier. Not only will this control the quality, though also it would make sure that the ingredients are consistent and would also allow me to trace the delivery if something were to happen. However, one of the main problems with ingredients would be that passion fruit is not always in season; meaning that it would have to be flown in from different countries, damaging the environment. Another problem with fresh sources would be that, if the passion fruit were to come from different countries, the flavour, colour and size of the fruit could decrease the consistency of the overall dessert. Once all of the raw ingredients arrive at the food manufacture warehouse, they will all need to be tested to see if contaminated. For the dry ingredients used in the product, I would sieve to remove any dirt such as stones, leaves or even animal parts; whilst the ingredients consisting of fresh fruit and other solids would be tested by the use of flotation washing. All ingredients must be stored in their correct temperatures; all dry products, such as the flour for the pastry, would need to be kept at room temperature in air tight containers where the damp is restrained. All other ingredients would need to be refrigerated at around a maximum of 5°C. This would be until production of the desserts. Other tests would be carried out when producing each dessert. These could vary from making sure there are no contaminants which may have been missed or checking that the fruit has not been bruised, and is therefore useless in creating the mousse. Colour, weight and size would also be checked using tolerances.

### Quality Assurance - Moulds

Throughout the production checks will be made ensuring that both quality and satisfaction of the manufacturer is kept to a high. Most of the different processes will be checked from the HACCP criteria. This is to prevent any prominent hazards from occurring whilst still making sure that the quality is consistent.

### Target Market

As all of the products that I have made have been aimed at young professionals; to do this, I have developed away from my original idea of the flat pastry cases and filling into a new design which met the specification to more points than before. I have also found the variance in shape made the product much more interesting to observe. I have also designed packaging for my product. The reason for this is to protect the product as well as being used as to advertise the desserts. The use of shape is also an important factor when considering the target market. This is because most people will want a form that will not damage the desserts though is also easy to carry; this is why I would choose a rectangle. The dessert was thought to have a luscious flavour and a sublime texture. The appearance of the product is that of an abstract design with edible components. My target market thought that this made the products look more appealing. The overall effect that this had on the dessert was that it looked modern and appropriate to the changing artistic moods. All of the reasons that I have stated above, prove that my product is more than suitable for the target market of young professionals.

### Product Marketability

As this products appearance is original and so is the flavour of the pastry, this would enhance the advertisement of the dessert. From research, I found that there are limited amount of tarts in the same form as the one that I have created; this could mean that there would be a wider audience interested in this new arrangement. Because the product is different, it would stand out against many tarts which can be found in numerous supermarket chains, this is especially because of the chocolate decorations. This could make the product more popular though could also have the reversed effect as people may not want to explore out of their comfort zone, especially not to waste money. To promote my product I could use tasting sessions for customers in supermarkets and patisserie shops and cafes. This would help selling as consumers would be able to taste the product before buying. Another promotional way is to use reductions which are known to draw in a potential customer. To advertise the product I would research into creating picture boards for food magazines as a way to inform potential customers.

### Promoting Marketability

To increase popularity, I would develop the product into a range; by changing the ingredients and texture. I would use different toppings as well, such as various nuts, caramel and even one made up of coffee. Though there are simpler ways to increase selling. This could be increasing the portion size to one which could be shared between family and friends.

### Strength Shows the Way to Success

When manufacturing this dessert, I may have to put the chocolate decorations on by hand; I also may have to create the chocolate sauce on the plate also by hand. However, another problem with manufacturing for a supermarket chain would be that the plate decoration would not be available, unless the plates would be sold with the desserts; though this would increase the overall price. The chocolate decorations would have to be made in the same mould to make sure that each one is exact. And the pastry biscuit would be made with industrial cutters, specialised in the correct shape, so each is exact. All of these implications would add to the desserts original properties.

# Evaluation and Testing Continued Product 1

Continuing from my previous evaluation, I am now going to test my dessert against my specification points.

| Specification Point                          | Achievement  |
|--|--|
| Aimed at young professionals                 | This product is suitable for young professionals because the flavour and appearance is more suited to a young adult rather than an older child. I also think that the appearance is modern at detailed giving the product a uniqueness which is much desired.  |
| Luxurious dessert                            | I do think that this product reflects luxury and quality. This is because of the ingredients used and the overall presentation. This dessert is also more original than if in the form of a flan case.   |
| Portion size                                 | Each portion size weighed under the maximum allowed. This means that each dessert is of a suitable size making consumption easier. The shape is also effective with the biscuit being slightly bigger than that of the mousse.   |
| Good balance of textures                     | The texture changes with each of the different components. There was a firmness coming from the pastry, though also a subtle crispness from the walnuts used. The filling was light and smooth, giving an excellent comparison from the base. Both decorations were soft and rich, melting on the tongue.  |
| Excellent variety of flavours                | Each section of the dessert had a different flavour. From the pastry, there was a hint from the walnuts and ginger. This helped make the pastry original. The mousse had a definite flavour of the passion fruit as well as mango from the smoothie. The decoration gave the product a strong, velvet flavour found only in the best chocolate. Overall, I felt that my product definitely had a variety.  |
| Free from artificial additives and colouring | None of the colours came from artificial sources; meaning that my product will appeal to a wider audience. I made certain that only natural flavours were also used, as this gives the product a better taste, this was also approved of by my target audience.  |
| Decorative and appealing                     | The presentation of the dessert was excellent; especially as only one main ingredient was used, the chocolate. This gave the product uniform, and stopped the plate from becoming overcrowded. The chocolate used for both the shapes and the sauce was of the best quality which was transferred to the high standards of each component. Next time I could look into using different types of chocolate, such as dark and white alongside that already used. |
| Suitable Price                               | The tropical mousse towers cost £1.20 per portion (including overheads.) This is near the higher end of the budget, because of the quality of ingredients and the extra plate decoration. Overall I think that this price is acceptable for the high standards created in this dessert.  |
| Maximum shelf life                           | Because of the fresh ingredients, the maximum shelf life is that of 3-4 days, depending on the temperature refrigerated at. I would not recommend the product to be consumed past 5 days, as the dairy products used, will give the dessert a rancid mouth feel; therefore not a luxury pudding.   |

## Summary

My final product suited my target audience, of young professionals very well. The reasons for this are because the dessert is presented to suit all ideals. If I were to package this specific design, I would choose recyclable materials, which would suit all environmental morals; the product would be shown to its highest potential using methods to allow the dessert to be on show to potential buyers, though still be kept safe from collapsing before consumption by the buyer.

I would look at selling my luxury dessert to small patisserie shops; which will allow the dessert to be freshly made each day. This will also mean that the decoration will be done by hand, adding to the product's value. Each section would then be made individually, therefore producing less waste. However, this may not be enough to sell my product to a wide audience; and therefore I am also researching into selling at high quality supermarkets, though this will make the plate decoration difficult to include; unless the plate is to be included with the overall price of the dessert. On the other hand this would mean an increase in the overall price; however, I do not think that this would be a serious dilemma as consumers would then be able to keep the plate for their own purposes.

The flavours of each of the components varied throughout the main body of the pudding. This means that each bite delivered contrasting textures, which only enriched taste buds rather than over power them. The appearance of the product was also contrasting as a whole. This is because both the colour of the pastry and that of the mousse banded together well, whilst the chocolate work allowed the dessert to stand out against other competitive products. I think that using the using the chocolate was a good idea because it allowed a link to follow through the dessert, without looking just like an extra ingredient to fill the space of the plate. As all of the ingredients are edible, this adds to the purpose of the dessert as being as luxurious as possible. However, because of the meat gelatine, not everyone would be able to enjoy this dessert; because of this, if I were to create a range, I would develop the same product though using a vegetarian alternative.

Manufacturing this product would not be very time consuming or difficult as each component would be made separately and then, at the final stages it would be put together as a whole, either by the use of machines or by hand on a construction belt; with one person completing one stage at a time. Another manufacture method would be for the dessert to be made as a whole by machines. However, I feel that this could minimise the quality even though more would be made because of the limit in time constraints. Though producing the chocolate decoration by hand would also be difficult to accomplish. I say this because it would be near impossible for someone to create the exact same shapes each time, without producing any waste; this waste could come from chocolate shapes which may not be exactly perfect, and would therefore be thrown away. Another disadvantage with hand creating the chocolate shapes would be that each person has their own idea of luxury and quality, meaning that some may not be up to the likes of the customer.

I am glad with the overall result as the dessert matches my specification accurately as it has been widely developed from the original flat pastry flans to the dessert which it is now. This makes the product suitable for selling to my target market. The price of the product comes in at just over inside the maximum allowed. I am not disappointed by this because I think that the ingredients used were at a high quality, and also the dessert is aimed at members of the working public with a high income to spend.

Overall, the product is of a suitable size for individual portions, using fresh ingredients from reputable suppliers creating the vision of luxury, which was one of the main points highlighted in the design brief. Both the specification and design brief have been met to high standards to design and make a luxury dessert which would appeal to young professionals to be suitable for serving at a celebration meal and in specialist shops.



For my second product, I am going to research into the different aspects of the processes needed for my product to be made. I will be evaluating these sections.

## Evaluation and Testing Product 2

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A delicate savour of golden tipped meringue covered with a crispy outer taste which lies over the opulent, soft filling; topped on the meringue lays a lavish Chantilly cream accompanied by fresh raspberries and blueberries. All of which has been enclosed by a cage structure made out of caramel, rich in essence and shade.

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There are several tolerances to be maintained throughout. The amount of flavouring used, such as the vanilla essence in the Chantilly cream, can be carefully measured to ensure that each batch produced has the same flavour and texture. It will also be necessary to be accurate with the thickness of the meringue base. Colour tolerances can be used for the main components to ensure that the colour of the caramel remains consistent. The amount of meringue needs to be measured as well as the Chantilly cream before placing onto the edible base. The caramel cage could be made using a mould, to make sure that they are all of the same shape and depth. Though I do not think that the style and patterns created from the caramel cage is as important, as long as it is able to stand over the rest of the dessert. The fruit would also need to be counted before placed on top to make sure that each dessert is equal. However, the main difficulty with maintaining consistency with this product would be with the caramel cage, as this is difficult to do without breaking, especially if it to be hand made; as in industry there may be suitable machines to create exact copies.

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All of the products that have been created have been tested by the same people, giving the product consistency. From the feedback I received, I was then able to analyse the changes which could be made to improve this product further.

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As the product does not contain any traces of nuts, I would be able to state this information on the product packaging, making the meringues suitable for those with nut allergies. However, as a warning, I would also make clear that the meringues were made in an environment where nuts were used. As I did not use any gelatine, my products can therefore be suitable for consumption by vegetarians; however not vegans as dairy products were used.

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Monitoring Quality and Suitability of Ingredients  
I would be able to monitor the freshness of the ingredients by monitoring the suppliers and their stock. To make sure that I use the highest quality of ingredients, I will research into using a reputable supplier. Not only will this control the quality, though also it would make sure that the ingredients are consistent and would also allow me to trace the delivery if something were to happen. However, one of the problems with the fruit would be because neither the raspberries nor blueberries are constantly in season; meaning that they would have to be flown in from different countries, damaging the environment. Another problem with fresh sources would be that, if the passion fruit were to come from different countries, the flavour, colour and size of the fruit could decrease the consistency of the overall dessert. However, to solve this dilemma, I could create a range of meringues including fruit suitable for each season; such as one including summer fruits such as mango and strawberries. All of the raw ingredients arrive at the food manufacture warehouse; they will all need to be tested to see if contaminated. For the dry ingredients used in the product, I would sieve to remove any dirt such as stones, leaves or even animal parts; whilst the ingredients consisting of fresh fruit would be tested by the use of flotation washing. All ingredients must be stored in their correct temperatures; all dry products, such as the caster sugar for the main base of the meringue, would need to be kept at room temperature in air tight containers where the damp is restrained. All other ingredients would need to be refrigerated at around a maximum of 5°C. This would be until production of the desserts. Other tests would be carried out when producing each dessert. These could vary from making sure there are no contaminants which may have been missed or checking that the fruit has not been bruised, and is therefore useless to suit the criteria for decoration. Colour, weight and size would also be checked using tolerances.

Throughout the production checks will be made ensuring that both quality and satisfaction of the manufacturer is kept to a high. Most of the different processes will be checked from the HACCP criteria. This is to prevent any prominent hazards from occurring whilst still making sure that the quality is consistent.

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As the final product is to be made for young professionals, I have thought of many different creations involving the meringue as the main ingredient of the dessert. Instead of using basic methods of presentation, I have chosen to include as much creativity as possible which not only adds to the luxury of the dessert, though also was thought of as impressive by my target market. This has met more specification points than I first thought. I have also found the variance in shape made the product much more interesting to observe. This is because of the added height given by the caramel cage. However, this would be one of the main problems when it came to packaging, especially the caramel as this was the most delicate; though another reason for the packaging is to advertise the dessert as much as possible to new customers. The use of shape is also an important factor when considering the target market. This is because most people will want a form that will not damage the desserts; itself, by collapsing on the dessert, though is also easy to carry; this is why I would choose a square. The meringues were thought to have a opulent flavour and vivid texture from each component. Decoration for the meringues, especially the work with the caramel was thought as awe inspiring. My target audience thought that the appearance of the products made the desserts look more appealing than others on the market. All of the reasons that I have stated above, prove that my product is more than suitable for the target market of young professionals.

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As this products appearance is the most original, I think that this would improve advertisement of the overall product available. From research, I found that there was a wide range of meringue based products, though most of this was in the form of pastry based desserts, such as lemon meringue pie. As my product is different from these, and many other meringue based designs, I think that there could be a wider audience interested with this new creativity. Because the product is different, it would stand out against many other products using the same ingredients, especially those which can be found in supermarkets across the nation. This could make the product more popular though could also have the reversed effect as people may not want to explore out of their comfort zone, especially not to waste money. To promote my product I could use tasting sessions for customers in supermarkets and patisserie shops and cafes. This would help selling as consumers would be able to taste the product before buying. Another promotional way is to use reductions which are known to draw in a potential customer. To advertise the product I would research into creating picture boards for food magazines as a way to inform potential customers.

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To increase popularity, I would develop the product into a range; by changing the fruits used to suit each season. Another idea for an improved range would be to use different styles for the caramel, such as strands or arches. I could also use different creams for the filling. I would like to try using colour for the meringue bases, such as light pinks and greens. Though there are simpler ways to increase selling. This could be increasing the portion size to one which could be shared between family and friends.

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When manufacturing this dessert, I may have to put the caramel decorations on by hand, as the machine could snap them by using too much pressure. The meringues could also be made in a mould to ensure that they are all of the same size, height and depth, the chantilly cream would be made in batches to save time and cost of ingredients. All of these implications would add to the desserts original properties.

# Evaluation and Testing Continued

## Product 2

Continuing from my previous evaluation, I am now going to test my dessert against my specification points.

| Specification Point                          | Achievement  |
|--|--|
| Aimed at young professionals                 | This product is suitable for young professionals due to the flavour and texture created. This is because the dessert would suit more developed taste buds due to the strong flavours. The appearance is also quite modern making the product even more unique, and therefore more suitable for adult consumers, as children may find it out of their comfort zone.   |
| Luxurious dessert                            | This product definitely shows luxury; not only from appearance, though also from the quality of the ingredients used throughout the pudding. The appearance is interesting with each component, all of which have been made with high standards in mind.   |
| Portion size                                 | Each portion size weighed slightly over that allowed, though this was because of each different component, when combined. However, consumption is still easy as the meringues are of a suitable size. The shape may make eating slightly difficult as the meringue does crumble away when bitten into.   |
| Good balance of textures                     | The overall texture changes between each component. With the meringue base, there was a firmness with the outside layer whilst inside, this all dissolved and, instead a smooth texture replaced the previous. There was also a subtle chew to the inside; increasing the mouth feel. The filling was light and smooth giving an excellent comparison from the base. The decoration was sharp, though instantly melted on the tongue.  |
| Excellent variety of flavours                | Each section of the dessert had a different flavour. However, there was little from the meringue base, apart from sweetness; that is why I used vinegar to add a slight 'kick'. The cream had a hint of vanilla which added to the thickness with the other ingredients. Whilst there were many different flavours with the main components, the fruit gave freshness and a comparative tang to the smoothness of the cream. The caramel gave another sweet flavour though this time it was much stronger and therefore lasted in the mouth long after the rest of the dessert had been eaten. |
| Free from artificial additives and colouring | None of the colours came from artificial sources; meaning that my product will appeal to a wider audience. I made certain that only natural flavours were also used, as this gives the product a better taste, this was also approved of by my target audience.  |
| Decorative and appealing                     | The presentation of the dessert was excellent; especially with the different form of caramel, as I also tried spiralling caramel, which was another success. Both forms gave the product even higher standards. However, the presentation of the final product was much more difficult; as the caramel cage overpowered the rest of the dessert when placed directly on top.   |
| Suitable Price                               | The cost of my final product is £1.62 (including overheads). Overall I think that this price is acceptable for the high standards created in this dessert.   |
| Maximum shelf life                           | Because of the fresh ingredients, the maximum shelf life is 1-2 days at a chilled temperature of 0 - 5C. I would not recommend the product to be consumed after this time, as the dairy products used, will give the dessert a rancid mouth feel; therefore not a luxury pudding. There is also a big risk of food poisoning.  |

### Summary

I feel that my final product suits my target audience exceptionally. The main reason behind this is because not only is the dessert presented to the best ability, though also because the style is more suited to the preferences of adults due to the rich combination of flavours and textures. As the product will need to be packaged conveniently, I would choose materials which may have been already reused, though definitely those which can be recycled. This is mainly because most members of the adult public are becoming more aware of the growing climate problems; and this would therefore mean that they would be doing their part to help these growing issues. The style of the packaging will allow consumers to view the product that they will be potentially buying; though still be kept safe from collapsing.

The areas that I would be hoping to sell my product include specialised dessert shops, and possibly, research into selling at quality supermarket chains. The advantages of selling in dessert shops would mean that the products could be hand made, and therefore using the freshest ingredients possible. This will also mean that less waste would be produced; though the main disadvantage with this would be with timing, as the making of each product would take longer to fulfil.

The flavour of the meringues depended on that of each section. I say this because without the main differences, the product would be bland and therefore not interesting enough to be classified as luxury. As flavour and texture both link together, I, like my test tasters, all of which were thought to be included in the description of young professionals; thought that the comparison between the outside layer and that of the inside worked well together and gave needed texture to that of the overall dessert. Before creating the meringues, I was apprehensive that the various amounts of different flavours and textures would only overpower each bite, and therefore confuse the taste buds, thankfully, this was not the case; though next time I would look into using ingredients which would accompany each other more. The appearance of the product complimented the different colours used; both the meringue base and the caramel were quite pale colours which allowed the less obvious ingredients such as the fruit, to stand out against the back drop. This is why I think that my dessert would again stand out from other competitive products.

Manufacturing this particular product would not be as time consuming if done using specially designed machinery. The reason for this would be that the machines can be programmed to deliver identical components which may not happen if made by hand. However, the only part of this product which would have to be made by hand would be the caramel cages, as there is a possibility that the machinery could easily break these by applying much too much grip. If the dessert was to be made using older methods, such as by hand, then I would recommend creating each section first, and then create the overall product afterwards. However, this could decrease quality as each person has different conceptions of perfection.

I am very content in knowing that my dessert has indeed accomplished what it was set out to achieve. In other words, my meringues have met most of the design and specification points. Overall, I believe that the dessert of meringue with a Chantilly cream covered with a caramel cage is of perfect portion size to suit one diner. I also think that I have continued throughout to use the freshest ingredients delivered from reputable suppliers. This therefore, completes the idea of luxury and how it is desired by those who only approve of the highest quality. Even though the product cost more than I expected (£1.62) my target market thought that this was reasonable as a lot was offered for their money. This product is suitable for being served at even the most luxurious celebration banquets.





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