

AQA GCSE
Design and Technology:
Food Technology
Revision





Section A *30 marks*
Section B 90 marks



Section A *is based on the design ideas and preparation sheet*

Section B is based on anything you learnt during the course

We know that the first section
is going to be based on the
following:

Design Theme: pastry products produced by local
bakeries





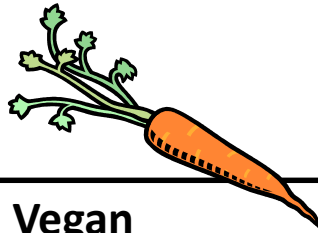
At some point during Section A you will be asked to **design a pastry product**. You need to **learn** how to **make** a selection of products before the exam so you are prepared when you have to complete this question.

Think about how can I change the design to be suitable for people with special diets?



Coeliac disease

Is an intolerance to the protein gluten, which is found in wheat, barley and rye. Food such as bread, biscuits, cakes and pasta must be avoided.



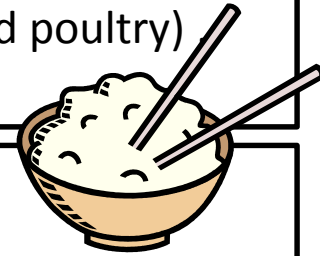
Vegan

People who eat no animal products including meat, dairy (from animals milk) eggs and fish. Many vegans avoid wearing animal products also.



Vegetarian / vegetarianism.

People who chose for a moral, religious or health reason to exclude meat from their diets. (this can include fish, shellfish, animal meats and poultry)



Lactose Intolerance

Is an allergy towards milk it can cause suffers to suffer from allergic reactions and in some cases this can cause convulsions.

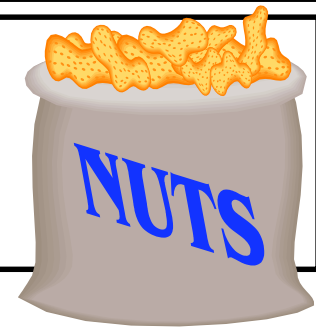


Gluten

Is found in grass related grains, wheat, maize, rice ,rye and barley. People who have an allergy towards gluten should avoid these foods and or eat alternatives.

Peanut allergy

This often effects small children and as a health warning children under 3 years due to the effects the allergy can cause.



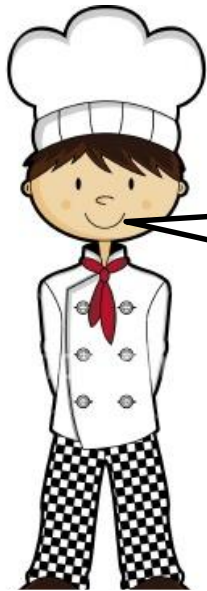


You need to know about the **nutritional information** related to pastries you design. Always use the eat well plate if you struggle to remember certain information.

Keywords

Nutrient – the part of the food that performs a particular function in the body.

| Ingredient | Nutrient | Function in the body |
|------------|---------------|--|
| Flour | Carbohydrates | Gives the body energy |
| Butter | Fat | Protection and insulation (warmth)of the body, Energy |
| Cheese | Protein | Growth and repair of the body, energy |
| Tomatoes | Vitamin A | Helps see in dim light, healthy skin and tissue |
| Cream | Calcium | Keeps bones and teeth strong, healthy muscles and nerves |
| Yogurt | Vitamin B | Transfer and release of energy |
| Pulses | Vitamin B | Transfer and release of energy |



If I had to package my product what would I use?

| | Paperboard | Glass | Plastic | Metal |
|----------------------|-------------------|--------------|----------------|--------------|
| Advantage | | | | |
| Disadvantages | | | | |



What needs to be on the packaging?



- ✓ The product Name
- ✓ List of ingredients
- ✓ Weight or volume
- ✓ Storage instructions
- ✓ Use by date/best before date
- ✓ Manufacturer
- ✓ Place of Origin
- ✓ Allergic information



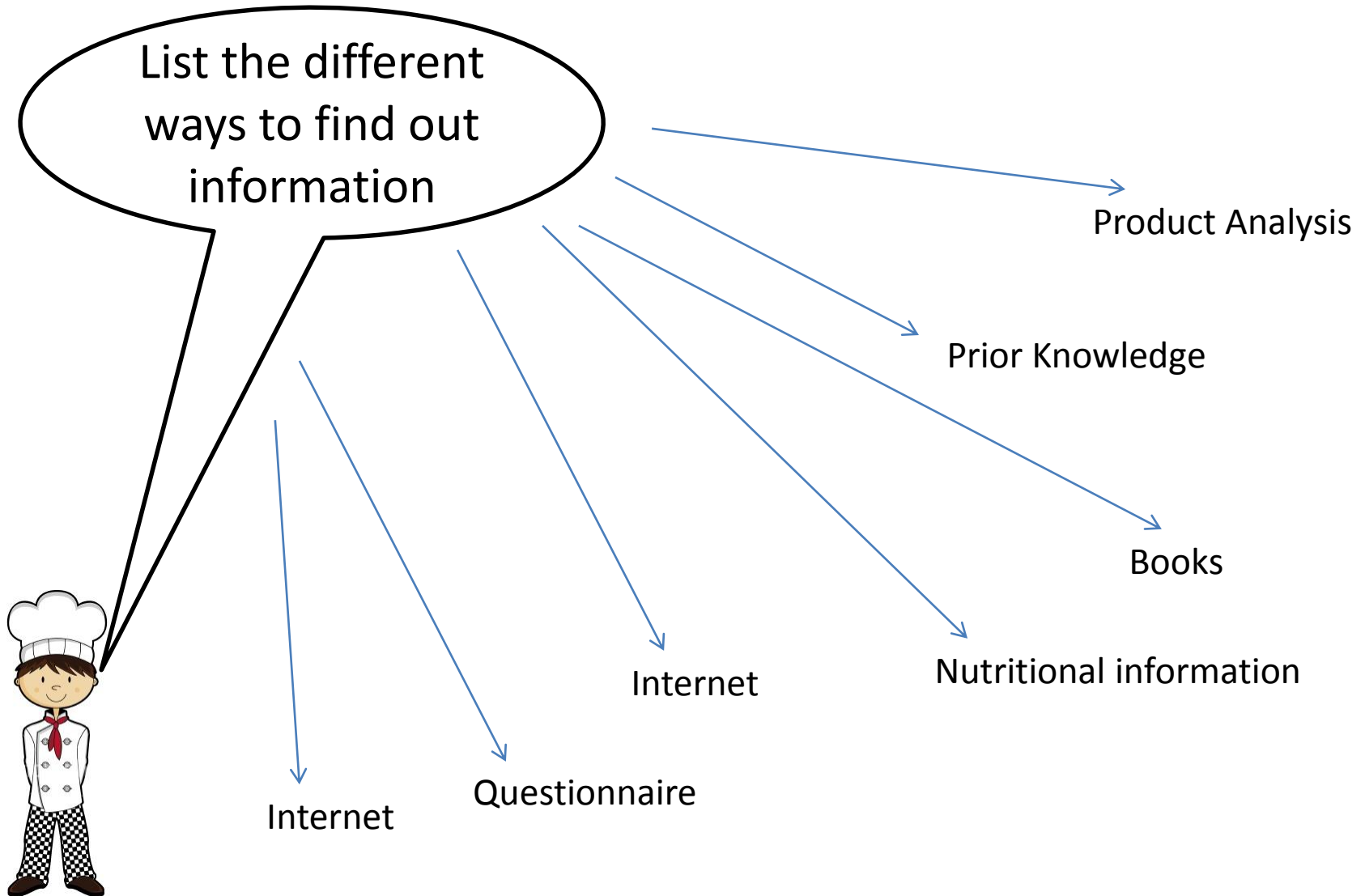
We know that the second section can be on the anything.

I have broken the next section down into sections to help you revise.

- Research Methods
 - Data Analysis
 - Sensory Analysis
 - Healthy Eating
 - Temperatures
 - Developments
- Nutritional information

- Production (specifications)
 - Control Checks
- Problems in production
- Standard components
- Environmental Issues
 - CAM/CAD
 - Additives

Research Methods

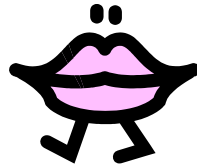
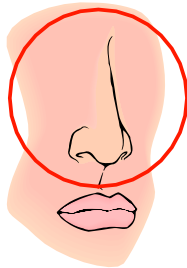
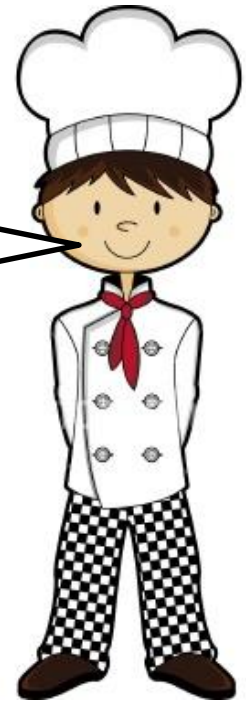


Make sure you triple check your answers when using data they have given you. Silly mistakes can be made loosing easy marks.



| Bread | 1960's | 1980's | 2000 |
|-------------|--------|--------|------|
| White Bread | 75% | 50% | 41% |
| Bagel | 2% | 6% | 7% |
| Ciabatta | 8% | 20% | 22% |
| Croissant | 3% | 9% | 11% |
| Naan | 9% | 11% | 14% |

Sensory Analysis – What is it?
What do I need to know?



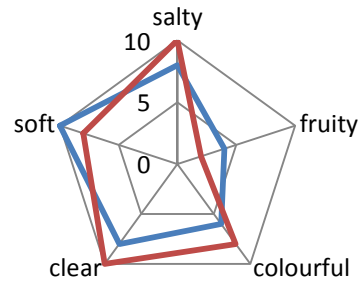
The senses are key to a good analysis of a food product. Sensory testing is carried out to analyse food products. You would have done sensory testing in your controlled assessment to help you evaluate your work. You must be able to explain how these tests can be carried out.

Ranking Tests

- These type of tests are used to test similar products in terms of specific flavour, e.g. sweetness
- Each sample should be coded and not put in a rank order. There should be a minimum of ten untrained tasters.
- Testers would need to put the products in order of sweetness
- Results could be recorded on a table

Profiling test

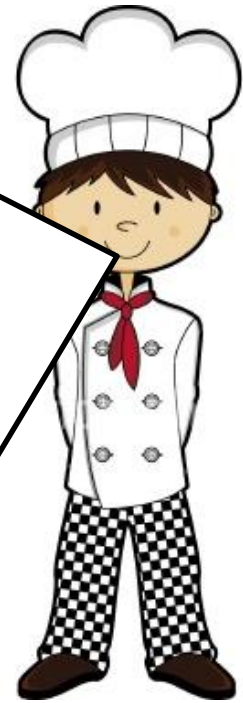
This is a star diagram – remember your coursework! It is normal to use a 6 point star diagram. This can be based on descriptive words, e.g. bland, fruity, crunchy.



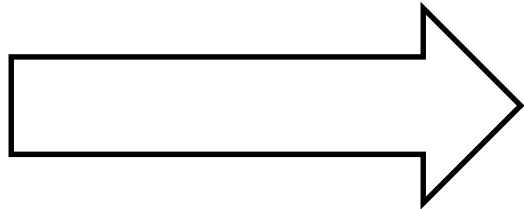
Rating testing

These tests are used to assess a specific flavour or texture. Must be tested by a trained tester. This could involve a seven point scale

1. Dislike extremely
2. Dislike a lot
3. Dislike a little
4. Average
5. Like a little
6. Like a lot
7. Like extremely



You must have a **good** knowledge of the eat well plate. It is very useful to help with nutrients



The eatwell plate

Use the eatwell plate to help you get the balance right. It shows how much of what you eat should come from each food group.



Brushing your teeth is boring! Create nutrient cards and put them around your bathroom mirror to help you revise while brushing your teeth to keep your amused!



Nutrient:

Source:

Function:

- **Carbohydrate** for energy
- **Fat** for energy, warmth, protection
- **Vitamin A** for healthy eyesight, mucus membranes, healthy skin issue, night vision
- **Vitamin B** for release energy, formation of red blood cells
- **Vitamin C** for general good health, iron absorption, healthy skin, gums, builds immune system and fights infection
- **Vitamin D** for calcium absorption and growth and maintenance of strong bones
- **Iron** for healthy blood and transfer of oxygen around body
- **Calcium** for healthy bones and teeth, healthy muscles and nerves

Remember the key temperatures

Danger Zone

Boiling point for sterilising equipment / utensils.

Final rinse temperature for dishwashers (82° - 88°)

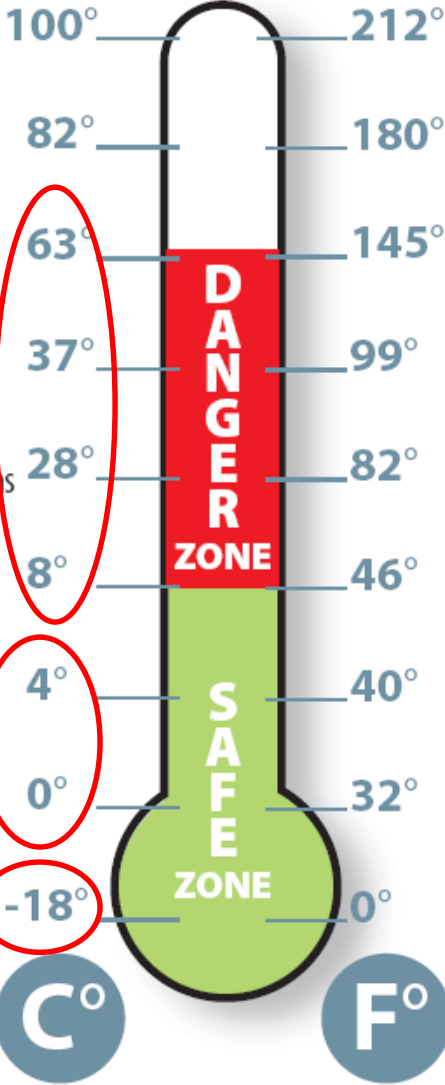
Temperature for hot holding keep food warm once cooked.

Do not leave raw or cooked items at room temperature as bacteria and micro organisms rapidly multiply.

Fridges - set air temperature at 8° or below for chilled food.

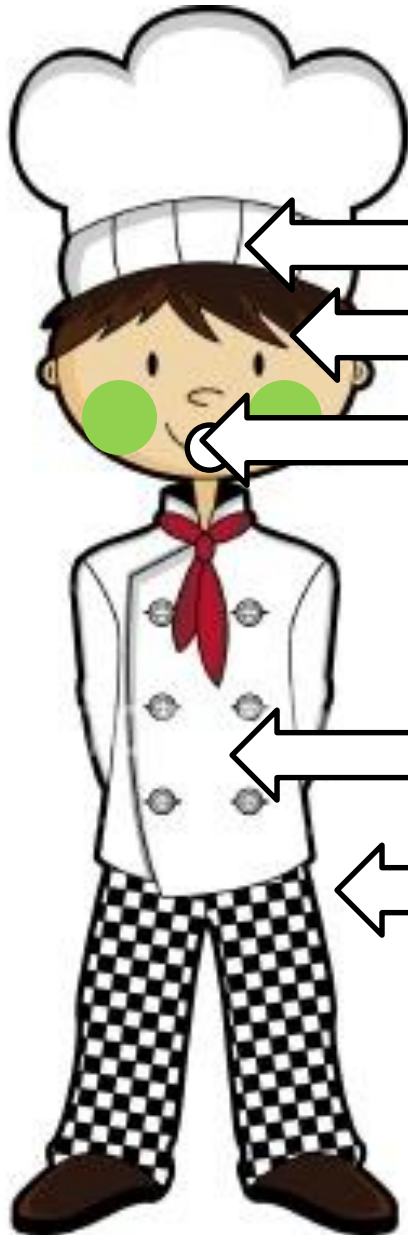
Freezer

Freezer temperature or below



Fridge





← Headache

← Dizziness

← Vomiting

← Stomach cramps

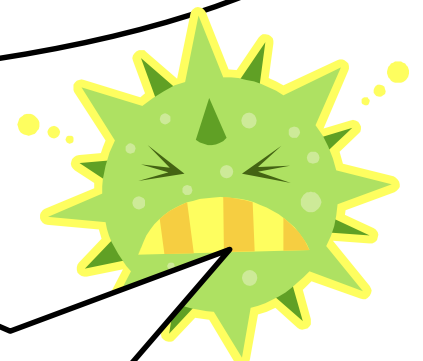
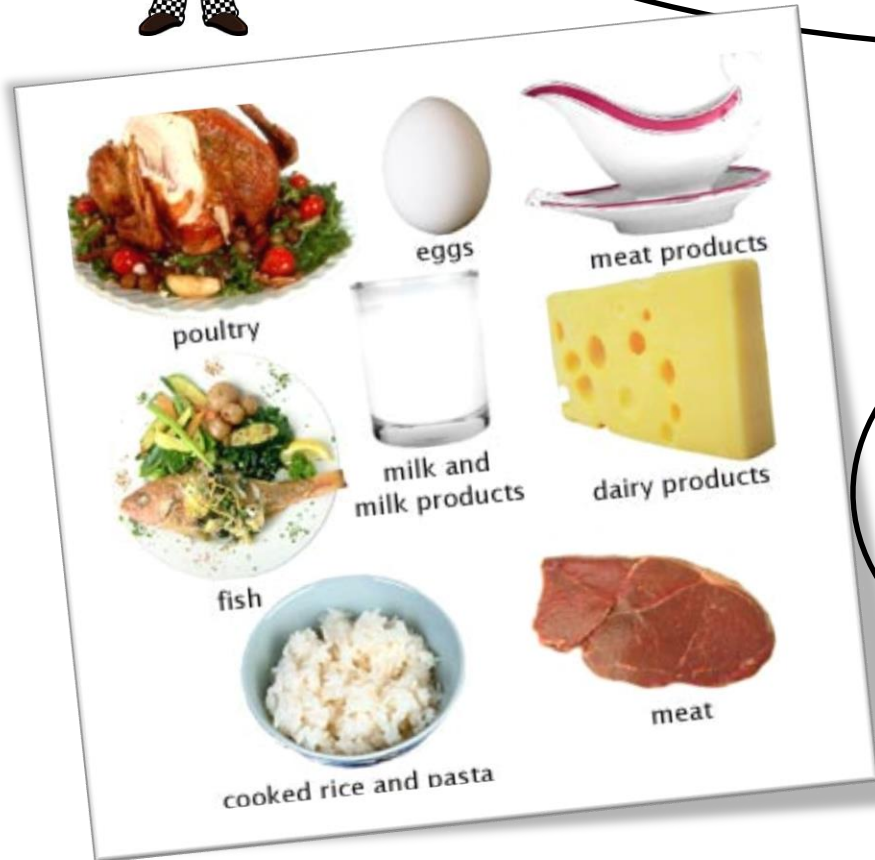
← Diarrhoea

High Risk foods can lead to food poisoning . The following are symptoms of food poisoning.



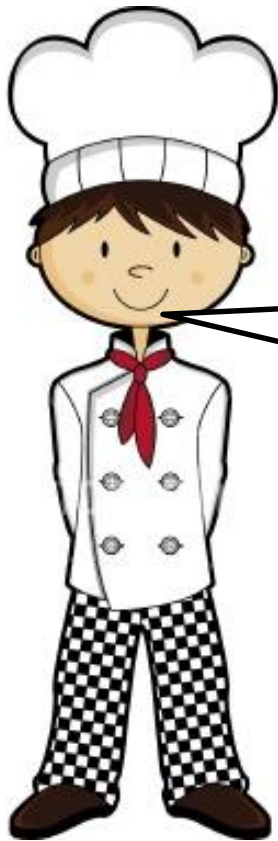


What is a high risk food?



A food which is an ideal medium for the growth of bacteria or microorganisms. We like **moisture**, **protein** and **warmth** to grow

What is a control Check?



You will be asked to relate to control checks in both sections of the exam. A control check is a step taken to ensure a product is consistent and of the same quality. Safety checks are also to ensure consistency

Design specification

This will be a **general** list of bullet points about what your design must have. A lot of the information will come from your **research**. **Specify** points such as:

- Target group
- Diets
- Ingredients
- Nutritional information e.g. low in salt
- Texture
- Cost

Product Specification

This is a **very detailed** specification and uses information gathered from **research** and design ideas you have tested out. You will eventually evaluate your work against the product specification. A product specification will be relevant to just one product. E.g. Meatballs and pasta.

You need to know what a specification is asking for. There are two types of specification.



The exam may give you situations for you to develop your dish. Have a go at the few below?

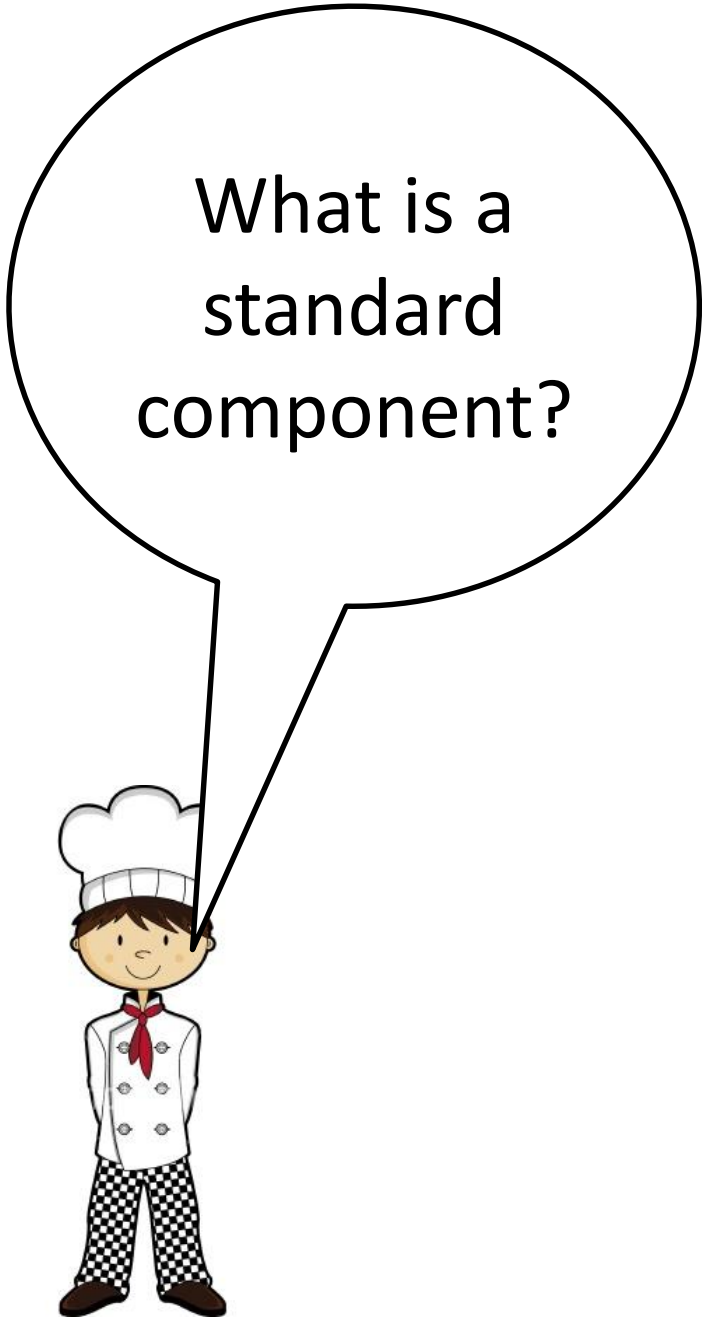


| Product – to help each product meet healthy guidelines | Development 1 | Development 2 |
|---|----------------------|----------------------|
| Beef Pattie with shortcrust pastry | | |
| | Why? | Why? |
| Carrot Cake with butter icing | | |
| | Why? | Why? |
| Chocolate mousse | | |
| | Why? | Why? |

You need to know how to highlight a fault when a product has not turned out well and suggest how it can be prevented. Have a go at the following.



| Product Fault | Reason for Fault | How could you prevent this from happening? |
|--|------------------|--|
| Filo pastry is dry and breaks up when handled | | |
| The filling leaks out of the parcel during cooking | | |
| Pieces of shell are found in the filling | | |
| The creamy sauce is thin and runny | | |

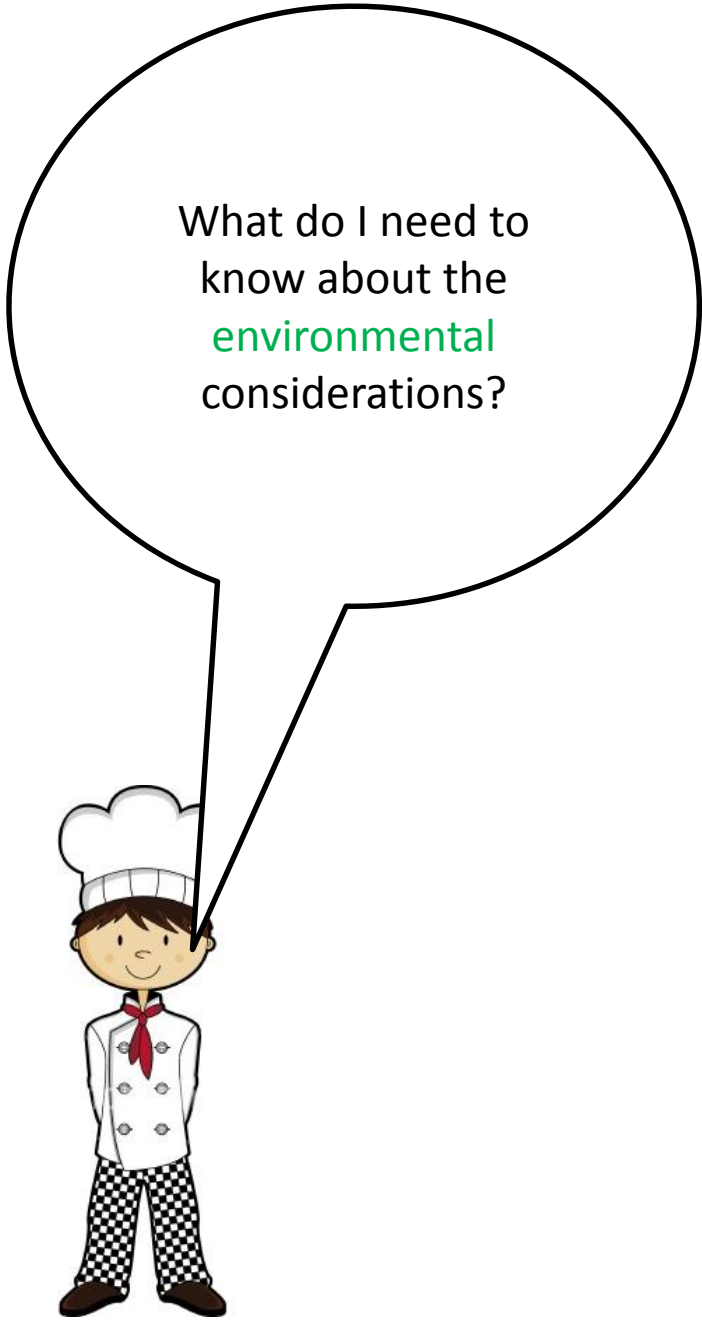


What is a
standard
component?

A Standard Component is a pre-prepared item/ingredient that is used in the production of another product.

You must be able to

- Understand and define the term 'Standard Component'
- Understand why standard components are used in food production
- To identify the advantages and disadvantages of using a standard component.

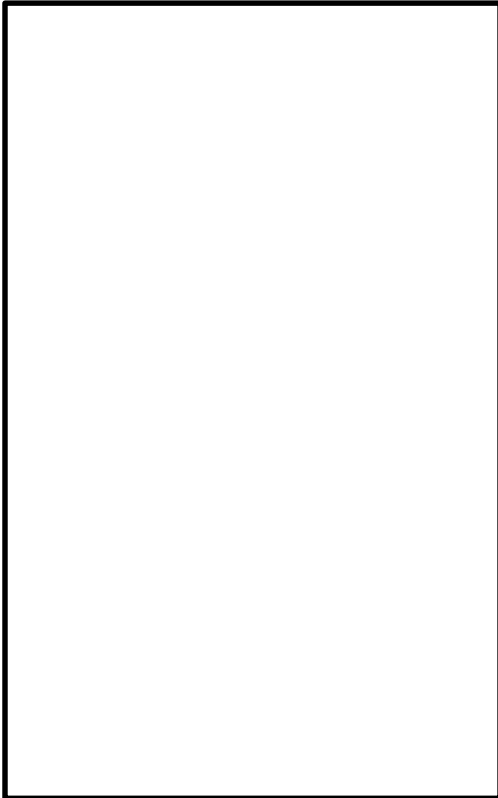


What do I need to know about the **environmental** considerations?

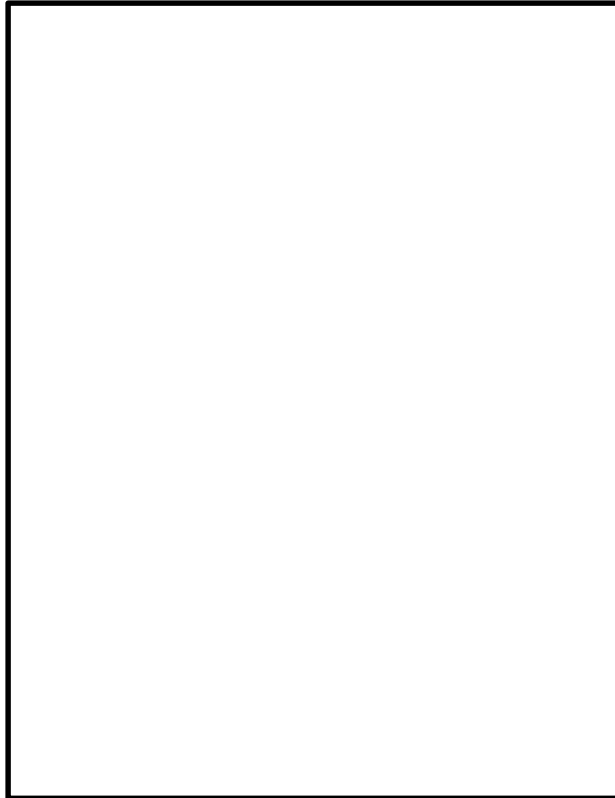
- Understand how the use of packaging has an impact on the world's resources
- Understand the sourcing of food affects the environmental climate.

Answer the questions on the next page to help you revise. You will need to know the answers

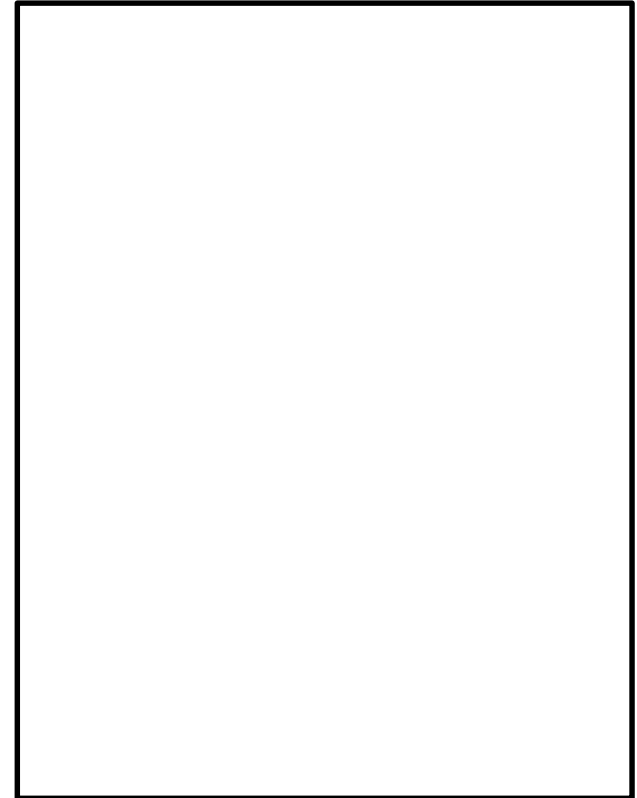
What are
nanofoods?

A large, empty rectangular box with a black border, intended for handwritten notes or answers related to the question above.

What are
farm assured
foods?

A large, empty rectangular box with a black border, intended for handwritten notes or answers related to the question above.

What are
Food miles?

A large, empty rectangular box with a black border, intended for handwritten notes or answers related to the question above.

What are
organic
foods?



What are fair
trade foods?

A large, empty rectangular box with a black border, intended for writing the answer to the question "What are organic foods?".

A large, empty rectangular box with a black border, intended for writing the answer to the question "What are fair trade foods?".

CAD = Computer aided

Design

Using computer design programs to help with designing a food product for example sensory star diagrams

- Understand the difference between CAD and CAM
- Understand how each can be used in production



CAM = Computer aided

Manufacture

Using computers to control the process of mass production for example a bread maker

Additives

Food additives can be classified as natural or artificial.

Natural additives occur naturally in foods. They are extracted and put into other foods. Caramelised sugar is used as colouring in cola.

Artificial additives do not occur naturally. They are made synthetically for a certain purposes. For example tartrazine is a synthetic colouring added to some sweets to make them yellow.

Uses for additives

Both natural and artificial additives are used for many different reasons:

Preservatives extend the shelf life of a product. Salt is used used in bacon and sausages.

Colouring makes food products look more appealing and appetising.

Flavourings can be used to add or improve the flavour of a food product. Vanilla flavouring is often added to cakes and biscuits.

Emulsifiers are used to prevent ingredients from separating. For example, lecithin, which is found in eggs, is used to stop the ingredients in mayonnaise from separating.

What are Additives?





Good Luck!

Don't Panic and make sure
you write an answer for
each question, even if it is a
guess!