

# GCSE Food Preparation and Nutrition November Mock Examination Preparation

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## Choux Pastry.

Using the statement below, fill in the missing sections on the process for making choux pastry and the functions of the ingredients

### Functions of ingredients

For structure, it has a high gluten content and gives a crispier result.

To make the mixture to rise/ to create the structure of the pastry. Used as an emulsifier.

To bind the mixture together/ to create steam to help it to rise.

### Safety Points

Use an oven glove to hold the pan of the handle as the handle may be hot.

Do not use a metal spoon to stir the mixture as it may burn your hand.

Use oven gloves to remove the tray from the oven. Place on a wired cooling tray.

Take care not to burn fingers on the side of the pan.

Adds air/helps entrap air into the mixture encourages rising of the choux buns.

This combines/mixes the eggs into the choux paste avoids the eggs separating .

This develops/strengthens the gluten enables gluten to stretch during baking

### Key Points

Do not allow the mixture to boil as it will cause the water to evaporate.

The water will help create a steamier atmosphere, which, in turn, helps the pastry to rise.

The eggs may start to coagulate and become lumpy.

To add air to the mixture and ensure the flour is ready to quickly add to the mixture.

This releases the steam from the choux bun.

Process	Key Points	Safety points
1. Pre- heat the oven to gas mark 6 or 200c . Grease a baking tray.	n/a	n/a
2. Sift the flour onto a piece of baking paper.		n/a
3. Cut up the butter. Place the butter and the water into a saucepan. Melt them on a medium heat, stirring with a wooden spoon. Remove from the heat.		
4. Tip in the flour and beat quickly until it forms a small ball of paste.	The flour will absorb the liquid and the starch granules will swell. The paste should not be runny, it should form a glossy ball.	
5. Leave the mixture to cool, for a few minutes.		Do not leave the pan on the heat, place on a heat proof mat. Ensure the hob has been turned
6. Beat the eggs in a measuring jug.	This ensures that the eggs is mixed thoroughly and makes it easier to add the eggs a little at a time.	Ensure egg shell does not go into the mixture.
7. Add the eggs and beat the mixture thoroughly, until it forms a smooth paste.		

8. Pipe or spoon the mixture into the baking tray. Add a couple of teaspoons of cold water into the tray. Place the tray on the top shelf of the oven.		Use oven gloves to place the tray in the oven.
9. After 10 minutes increase the oven temperature to gas mark 7/220c for a further 10 minutes.	This enable the structure to set and give a light, crispy and golden brown choux bun.	Monitor the cooking time to ensure the pastry does not become over cooked.
10, Remove from the oven, and piece the side of each pastry.		

You will need to know what ingredients are used and what they are needed for.

<b>Ingredients</b>	<b>Function</b>
50g butter or margarine	To add flavour/moisture
60g strong white flour	
2 eggs	
150ml water	

### Special diets

Special diet	What is it?	How can recipes be adapted ?
Lactose Intolerant		
CHD		
Celiac disease		

## Choux pastry

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3. Cut up the butter. Place the butter and the water into a saucepan. Melt them on a medium heat, stirring with a wooden spoon. Remove from the heat.	Do not allow the mixture to boil as it will cause the water to evaporate.	Do not use a metal spoon to stir the mixture as it may burn your hand.
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7. Add the eggs and beat the mixture thoroughly, until it forms a smooth paste.	<p>Adds air/helps entrap air into the mixture encourages rising of the choux buns.</p> <p>This combines/mixes the eggs into the choux paste avoids the eggs separating .</p> <p>This develops/strengthens the gluten enables gluten to stretch during baking Produces a good structure to the final outcome</p>	Take care not to burn fingers on the side of the pan.

<p>8. Pipe or spoon the mixture into the baking tray. Add a couple of teaspoons of cold water into the tray. Place the tray on the top shelf of the oven.</p>	<p>The water will help create a steamier atmosphere, which, in turn, helps the pastry to rise.</p>	<p>Use oven gloves to place the tray in the oven.</p>
<p>9. After 10 minutes increase the oven temperature to gas mark 7/220c for a further 10 minutes.</p>	<p>This enable the structure to set and give a light, crispy and golden brown choux bun.</p>	<p>Monitor the cooking time to ensure the pastry does not become over cooked.</p>
<p>10, Remove from the oven, and piece the side of each pastry.</p>	<p>This releases the steam from the choux bun.</p>	<p>Use oven gloves to remove the tray from the oven. Place on a wired cooling tray.</p>

Outline the functions of fat in the diet.



A saturated fat is...

It can be found...

An unsaturated fat is...

It can be found...

What is the impact of saturated fat on our bodies?	What are the benefits of reducing saturated fats in the diet.?

List four reasons why a person may choose to become a vegetarian.

- ◇ .
- ◇ .
- ◇ .
- ◇ .

Match the types of vegetarians to the definition.

Vegan	They do not eat red meat, but will eat poultry such as chicken and turkey.
Lacto vegetarian	They do not eat meat but will eat eggs and dairy products such as milk and cheese.
Lacto-ovo vegetarian	They do not eat meat or any animal products. They are sometimes called a strict vegetarian.
Demi/semi vegetarian	They do not eat meat and eggs but will eat dairy products such as milk, cheese and other milk products .

HBV stands for...

HBV foods are foods that contain all the essential amino acids that are needed for growth in the body.

LBV stands for ..

LBV foods are foods that do not contain the essential amino acids.

Complementary of proteins mean...

An example of this is..

## HBV AND LBV FOODS

Using two different coloured pens , circle the HBV foods in one colour and the LBV foods in a different colours.

Chicken	ham	lentils	pasta	rice	Beef
cheese	Yoghurt	Baked beans	Nuts	peas	milk
Sunflower seeds	Lamb	bread	Soya milk	Cream	Turkey
salmon	Oats	Cod	Bacon	Soya beans	Sausages

A Lacto vegetarian, does not eat meat but will eat dairy products. There are many factors that the need to consider in order for them to achieve a	Explanation / ways to ensure they have it in the diet.
Ensuring they have foods that are HBV	
Food combining	
May lack vitamin B12 in the diet	Vitamin B12 is found in meat, so they need to eat marmite, yeast extract or fortified breakfast cereals/ take a supplement
May lack iron in the diet	
Diet may be too high in fat	
Eating a variety of fruit and vegetables.	

## Food Spoilage and Methods of Preservation

**What can cause food spoilage** ( you will need to learn this and be able to link this knowledge and understanding to the different preservation methods)

**Time Available:** Food left in a suitable environment for a period of time will allow growth of yeasts/bacteria/moulds.

**Temperature:** (warm conditions needed) Bacteria are most active between 5 and 65 degrees Celsius, which is known as the danger zone. Optimum temperature for bacterial growth 37 degrees, ie body temperature. Below 0 degrees bacteria will become dormant. Most cannot survive above 72 degrees.

**Water/Moisture:** is necessary for growth of bacteria and moulds.

**pH levels affect growth:** Most bacteria are unable to grow in acid or alkaline conditions.

**Air/Oxygen:** Anaerobic and aerobic: Some bacteria can grow in anaerobic conditions, but none can grow in a vacuum.

Preservation methods : Using the information sheets complete the chart on the different methods of preservation.

Method of preservation	How does it prevent food spoilage/ growth of micro-organisms	Examples of foods that are preserved in this way. ( name 3)
Chilling		
Freezing		
Canning	: food contents are processed and heat sealed in an airtight container. The heating of the cans kills any bacteria. The sealing stops any further bacteria from entering. Canning provides a shelf life typically ranging from one to five years, although under specific circumstances it can be much longer.	
Vacuum Packaging		

## Preservation methods

Using the information sheets complete the chart on the different methods of preservation.

Method of preservation	How does it prevent food spoilage/ growth of micro-organisms	Examples of foods that are preserved in this way. ( name 3)
MAP ( modified Atmospheric Packaging)	Foods are sealed bags with an atmosphere modified to reduce the oxygen (O <sub>2</sub> ) concentration and increase the carbon dioxide (CO <sub>2</sub> ) concentration. This prevents spoilage as bacteria needs oxygen to grow. Some concern this may not retain nutrients, especially vitamins	Packed salads, red meat , cooked meat e.g. ham.
Pickling		
Drying		
Jam Making		
Salting		
Irradiation	Is the exposure of food to ionizing radiation. (high-energy electrons and gamma rays) The treatment has a range of effects, including killing bacteria, molds, insect pests, reducing the ripening and spoiling of fruits, and at higher doses inducing sterility.	



## Bread Making

You will need to know the functions of the key ingredients and how these ingredients work together to make a good quality bread product.

	Key Function
Strong Bread Flour	<ol style="list-style-type: none"> <li>1.</li> <li>2.</li> <li>3.</li> <li>4.</li> <li>5.</li> </ol>
Yeast	<ol style="list-style-type: none"> <li>1.</li> <li>2.</li> <li>3.</li> </ol>
Warm water	<ol style="list-style-type: none"> <li>1.</li> <li>2.</li> <li>3.</li> </ol>

Complete the table on the functions of ingredients using these statements.	<input type="checkbox"/> provides structure to the cooked bread as it coagulates when cooked at high temperature	<input type="checkbox"/> forms an elastic stretchy dough – when mixed with a liquid
<input type="checkbox"/> binds dry ingredients together	<input type="checkbox"/> provides gluten,( natural proteins in wheat)	<input type="checkbox"/> it uses available sugar for growth
<input type="checkbox"/> gluten stretches to hold the carbon dioxide bubbles produced by the yeast	<input type="checkbox"/> it produces gas bubbles/carbon dioxide which is trapped by the dough and makes the bread rise	<input type="checkbox"/> enables dextrinization of starch: brown colour
<input type="checkbox"/> if warm provides suitable condition for yeast to activate/fermentation	<input type="checkbox"/> it uses both respiration and fermentation (mostly the latter) to develop	<input type="checkbox"/> provides moist conditions for the yeast

How the key bread ingredients work together.

Fill in the missing words, from the box below. (You will need to learn this)

The ..... (starch and sugar) provide food for the ..... The water Provides ..... and warmth within the dough. The yeast is distributed throughout the mixture during ..... As bread dough is ..... natural proteins in the flour line up and strands of ..... form to create a matrix within the bread dough.

The gluten becomes ..... when developed by kneading and can be pushed up by the ..... produced by the yeast during fermentation.

Carbon dioxide expands when heated and releases ..... which provides the aroma produced when bread is cooked . The gluten entangles the bubbles

flour	mixing	elastic	alcohol
Yeast	gluten	moisture	caramelize
kneaded	texture	carbon dioxide	crust

Bread Key questions.	
1. Name one bread that is high in fibre ?	
2. What does the word fortified mean?	
3. What is white bread fortified with ?	
4. Which vitamins can be found in wholemeal bread?	

## Food Waste

Explain the reasons why we waste so much food.

1. *By one get one free offers*

**Explanation**

*People see offers but do not check the best before dates, so the food goes off or second item is not needed.*

2.

**Explanation**

3.

**Explanation**

4.

**Explanation**

5.

**Explanation**

6.

**Explanation**

Explain how households can reduce the amount of food waste.

1. *Do not buy BOGOF*

**Explanation**

*unless you need the second item or can store/freeze it.*

2.

**Explanation**

3.

**Explanation**

4.

**Explanation**

5.

**Explanation**

6.

**Explanation**

## The benefits of eating foods that contain complex carbohydrates and NSP.

Read/highlight the information below and produce a revision plan on complex carbohydrates and NSP. It must include:

- What they are ?
- Where you can find them ?
- The benefits in the body and how they can promote a healthy diet.

The reasons why complex carbohydrates and foods with a high dietary fibre content should be included in the daily diet.

Complex carbohydrates (that is, starches), rather than simple carbohydrates (i.e., sugars), are a good source of energy and the main source of a range of nutrients in our diet. As well as starch, they contain fibre, calcium, iron and B vitamins.

Many complex carbohydrates have increased wholemeal/wholegrain values which are a good source of carbohydrates in the form of starch/NSP as they include the bran part and have had nothing removed.

Starches take longer for the body to digest so they provide an even release of energy over a sustained period of time. Gram for gram they contain fewer than half the calories of fat. They are bulking food so will fill you up for longer .

Wholemeal/wholegrain versions of products have a higher nutritional value than 'white alternatives'—they contain B vitamins, Iron, vitamin E so therefore can make achieving a balanced diet easier to achieve.

These foods can help if someone is trying to lose weight, if eaten and sufficient water is drunk the food e.g. bread can soak up the liquid and swell – act like a sponge keeping you fuller for longer/less foods are consumed/avoids overeating which could lead to obesity. They provide NSP which can help with digestion, prevent constipation/efficient removal of waste products to prevent various bowel disorders.

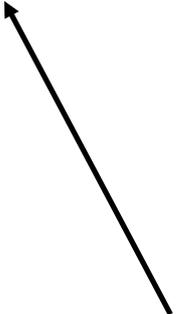
Some types of dietary fibre (present in fruits and vegetables such as apples, turnips, sweet potatoes, oats and pulses) can only be partly digested and may help to reduce the amount of cholesterol in the blood.

Some, such as wholegrain foods, fruit, vegetables, beans and lentils, have a low glycaemic index (GI). Individuals with diabetes can benefit from eating some low GI foods as eating foods with low GI ratings can help control blood glucose.

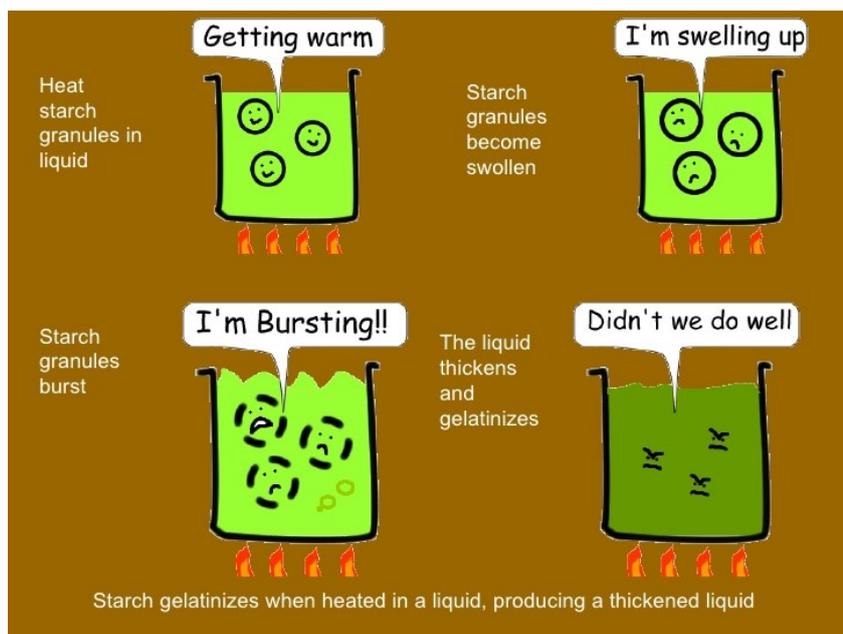
A complete carbohydrate is

NSP stands for  
It is also known as

Complex  
carbohydrates and NSP



Explain the stages of how to make a roux sauce. Explain how the sauce is thickened and the process of gelatinization. ( Use the diagram below to help)



Method of heat transfer	Explanation of how heat is transferred	Examples of foods that can be cooked in this way
Conduction		
Convection		
Radiation.		

## Primary and Secondary Processing

Key word	Definition
Primary Processing	
Secondary Processing	

Brainstorm different examples of primary processing

Primary  
processing

Brainstorm different examples of secondary processing

Secondary  
processing