
## Exam paper – 1 hour 45 minutes

Questions based upon;

- ✓ Food commodities
- ✓ Principles of nutrition
- ✓ Diet and good health
- ✓ The science of food
- ✓ Where food comes from
- ✓ Cooking and food preparation

### Exam tips

- Read the paper all the way through first
- Begin with the questions you know the answers to
- Underline and highlight key words
- Read the question carefully (read it twice) so you understand exactly what the question is asking for
- Look at the number of marks available and see how many answers/points you need to give
- For extended questions make a plan by adding sub headings down the page with however many bullet point you need – always explain ideas with examples.
- Answer all questions
- Check paper once finished – time permitting

## Exam command words

| KEY WORDS | HOW TO ANSWER |
|---|---|
| Suggest/identify/give reason for | Make a list, give a short answer; select words from a diagram/table/complete gaps in a sentence |
| Describe | Make a detailed explanation as to how and why something happens |
| Explain | clarify a subject or point write down the meaning of it and use examples to justify your response |
| Analyse | Break down into separate parts and look at each part in depth |
| Evaluate | Make a judgement about how successful or unsuccessful something is and say why it is important. Include evidence for your answer and come to a final conclusion. |
| Discuss | Write about all evidence for and against a topic, or point out the advantages and disadvantages of a topic. Use evidence to arrive at a conclusion. |

### Remember

- ❑ Write in full sentences
- ❑ Use specialist terms e.g. coagulate, gelatinisation
- ❑ Show good SPAG
- ❑ Include enough detail with examples to warrant the marks awarded for each question

## Revision techniques

Practice, practice, practice

Retrieval practice – choose a topic

- Put notes away and write down/sketch or speak out everything you know.
- Check notes to see what you have missed
- Make flash cards with simple notes – test yourself
- Use mnemonics e.g.
- F FOOD
- A ACID
- T TEMPERATURE
- H HOW LONG (TIME)
- O OXYGEN
- M MOISTURE

conditions for bacterial growth

Practice exam questions

- Print out with mark schemes
- Look at different exam boards for exam papers
- OCR food preparation and nutrition
- AQA food prep and nutrition
- Answer question with a time limit
- Use SENECA

Make it visual

- Mind maps/notes sketches
- Colour code notes
- Post it notes
- RAG notes

Red – don't know well enough
Orange – fairly confident, some knowledge gaps
Green – good knowledge

# FPN –TERM 2

# Technological developments in food production

Computers
- Can control different process accurately and improve the final outcome.
- Can stop the assembly line at any given opportunity e.g. metal detected in food.
- Reduce the need for manual workers making the production line more efficient and cutting costs

| Stage of processing | What the computer does | Advantages |
|---|---|---|
| Weighing ingredients | Sensors used to check accuracy, controls the flow of ingredients | Saves time & each product is identical in weight |
| Combining of ingredients to form a mixture | Controls the speed and length of mixing | Saves manual effort ensures identical outcome each batch |
| Dividing and portioning | Weighs each portion or rolls the same thickness | Accurate size , shape and weight |
| baking | Controls oven temperature, monitors the time so product not over or under cooked | Ensures safety of workers and each product is the same |
| packaging | Checks for contamination by foreign bodies e.gg. metal | Ensures safety of the product |

## Fortification - Adding nutrients to food

- To replace loss of nutrients during processing
- Margarine and butter have Vit A & D added by law
- In the UK cereals are fortified with Vitamins & iron and contribute to a healthy diet
- Foods for vegans & vegetarians are often fortified such as soya products with Vit B12

## Modified foods

Include foods which have had added nutrients, like yoghurts added lactobacillus that claim to improve the gut flora in your body
- Low fat/low sugar versions of existing products
- Genetically modified foods have had their DNA altered to increase /improve a favourable characteristic e.g. longer shelf life, increased nutritional value, pest resistant when growing .

## Food additives

preservative - extends shelf-life E200

Anti-oxidants – stops food going brown E300


Emulsifiers- keeps mixed e.g. oil and water in mayonnaise. Gelling agents – gives a creamy texture to food E400

Flavour intensifiers- improves flavour/replaces lost flavours e.g. yoghurt E600

Colours –enhances existing colour, replaces lost colour e.g. tinned peas are brown after canning without colour added E100

Find out the pros and cone of using additives

## Primary & secondary processing

Primary food – has been grown or reared and is not edible in it's original state, It needs to be processed.
Primary processing- changes primary food into a product that can be eaten or used to make other foods. E.g. washing , peeling vegetables, cleaning and sorting crops etc.

Secondary processing Is when a primary food is changed/converted into an ingredient that can be used to make a different food product.

| primary | secondary |
|---|---|
| Sugar beet | Granulated sugar or caster sugar |
| Wheat | Flour |
| Fruit | Jam |
| Milk | Cheese and yoghurt |

Example

Milk (primary food processing)

↓

Pasteurisation heated to kill bacteria (primary processing)

↓

Edible bacteria is added to thicken the milk (Secondary processing)

↓

Yoghurt is made , flavourings and colours added (Secondary processing)

# Food provenance, environment and food choice

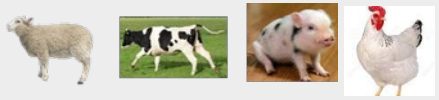
**Food provenance** means knowing where food was grown, caught or raised, knowing how food was produced and how it was transported

**Foods grown in the UK**

Wheat & barley
Apples
potatoes
Carrots
lettuce
sprouts
Strawberries
Raspberries

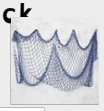
**Reared foods**

Chicken for meat & eggs
Pigs
Sheep
Cows for milk, meat & dairy



**Caught**

Fish (mackerel, herring/cod/haddock salmon) shellfish (prawns, osters, Calms & mussles)



- Trawling
- Line-caught
- pots

**Types of farming**

- Intensive –uses pesticides to grow high yielding crops
- Organic farming- crops produced naturally -lower yielding due to damage by pests

Animals raised for food can be factory farmed or on organic farms.

**Factory farms** –maximise the number of animals reared. This food will be cheaper.

Animals may;
-have Limited space
- be fed hormones to aid growth
- Be raised inside only e.g. Some chickens/turkeys
-be caged e.g. egg laying chickens

**Organic farms**- food will be more expensive

The welfare of the animal is put first.
-access to fields and fresh air
-have living conditions which meet high welfare standards
- Natural diet
- Give drugs only to teat illness

**Environment**

Food miles –the distance food has travelled from the field to the plate it is eat off.

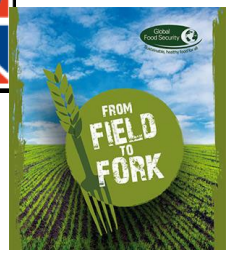
- People expect to eat all food all year round so foods have to be transported from around the world.

This increases our carbon foot print . Recycling & producing less waste can help reduce carbon emissions.

Nearly a third of all food produced ends up in landfill sites where it gives off methane gas as it decomposes

- Buy locally
- Buy when in season
- Compost vegetable peelings






Under EU law, all foods need to be traceable from field to fork.

Seasonality – foods that are only available at certain times of the year.
Benefits – tasty, plentiful, nutritious,
Cheap. Can be available all year round due to transporting foods from around the world.

Key terms – find the meanings of;
Transportation
Sustainability
Food Miles Free Range
Food Origin Genetically modified
Climate Change Organic
Carbon Footprint
Traceability
Recycling Sustainable food
Packaging Composting
Landfill Food waste

## Food choice

Enjoyment, preferences, seasonality, costs, availability, time of day, celebrations,

**cultural**
Different to other people.
Behaviour patterns
Habits/ inherited
Different beliefs/ morals/way of life.

**economical**
Cheaper cuts of meat
Collect vouchers
Supermarket own brand
Make your own food
Seasonal produce

**social**
Reward
Gifts
Demonstrating wealth
A way of socialising
Celebrations

**religion**
Jews not eating pork
Halal- Muslim
Jews- no shellfish/dairy
Islam – fasting etc.
Hindus – no beef

## Sustainability and food waste

**Sustainability** –means producing food in a way that is not harmful to the environment, does not deplete natural resources and in a way that will continue to provide food for future generations. To do this we need to;

- Avoid food waste
- Think about buying seasonal
- reduce the impact on the local environment

**Food security**-when people at all times have access to sufficient, safe nutritious food

Key influences;

- Disease
- Safety of food sources
- Reduced income
- Amount of food grown/reared
- Food waste
- Increased food prices
- People's knowledge of healthy diets

**Food poverty**-When an individual /family cannot obtain healthy nutritional food.

- People experiencing food poverty often rely on cheap foods high in fat & sugar
- People may have to miss meals as they cannot afford to eat
- Millions of people in the UK are in food poverty

**Food poverty occurs for many different reasons**

- People are in debt that needs to be repaid
- Low incomes cannot afford to eat and pay household bills
- People are out of work and cannot afford food
- Food prices are rising faster than incomes

# Food spoilage

Correct storage of food is important to avoid food spoilage and food waste ill health causing from eating contaminated foods.

**Fridge temperature** 0°C-5°C

## Fridge rules

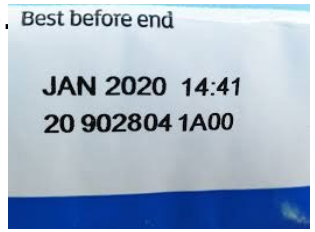

- Never put hot food in the fridge
- Don't over fill
- Store cooked meats above raw meats
- Raw meat on the bottom shelf
- Keep food wrapped
- Throw foods away past their use-by-date
- Don't keep the door open for too long
- Clean regularly

## Freezer-18°C

- Freezing slows down the bacterial growth
- When food is defrosted the water defrosts and the food may begin to break down e.g. strawberries
- Wrap all food well to avoid freezer burn
- Label & date food
- Check the temperature regularly
- Put newly frozen food at the bottom or back so that the older food is used first
- Don't overload

## Date marks


Use by is on food which is high in protein and most likely to cause food poisoning
Best before dates are on tinned, dried foods. Foods are at their best before this date.




## Food spoilage is caused by

- Bacteria
- Yeasts
- Mould
- enzymes

FIND OUT HOW WHAT EACH ARE AND HOW THEY WORK

These can make food unsafe to eat by being in the food of by producing waste products (toxins/poisons) that contaminate the food
Preventing bacterial growth
Remove one of more of the conditions micro-organisms need to grow

| | |
|---|---|
| F | FOOD |
| A | ACID |
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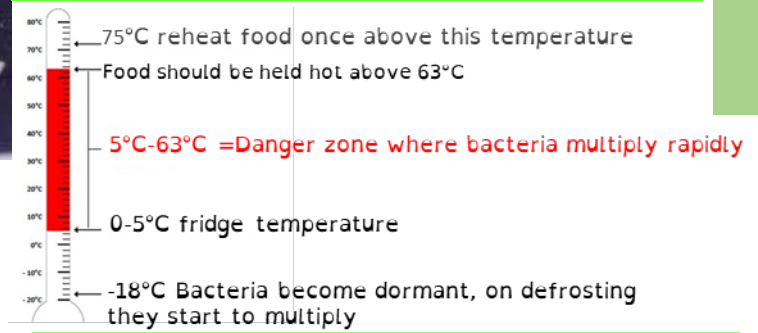
## TEMPERATURES




## DANGER ZONE
## 5°C - 63°C

**TASK: Find out where the following bacteria are found e.g. salmonella in raw poultry and eggs**
Staphylococcus, E-coli, Campylobacter

## GOOD MICRO-ORGANISMS

Some are used to produce foods and drinks
e.g. blue veined cheese has a special non-pathogenic bacteria and the spore of non-pathogenic mould added to the milk to give it it's flavour, texture and colour.
Yoghurts is made from milk fermented by two types of non-pathogenic bacteria

## Colour coded chopping boards

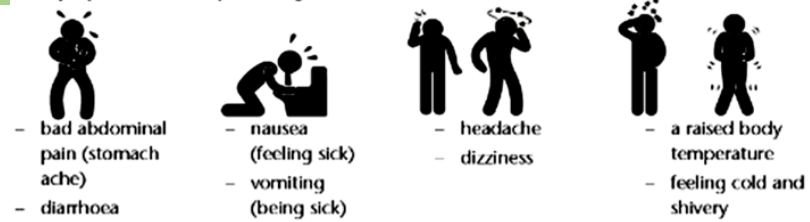
- Red - Raw Meat
- Blue- Raw Fish
- Yellow - Cooked Meat
- Green - Salad And Fruits
- Brown - Vegetables
- White - Bakery And Dairy
- Purple - Allergens

Help to prevent cross-contamination.
Each colour is assigned to a specific food.
The same with knives.

## Food poisoning

Caused when bacteria enter the body when contaminated food/drink is consumed

The symptoms of food poisoning can include:




**Vulnerable groups;**
Elderly
Babies and young children
Those with weakened immune systems
High risk foods
Rice/meats/fish/shell fish/ gravy made with meat juices/eggs/cold cooked meats/ milk/cream/etc.