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FOOD PREPARATION AND NUTRITION

EXAM BOARD: AQA **COURSE CODE: 8585**

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Name: ..... Tutor Group: .....

TRS SP TOPIC NUMBER: 1

Food Preparation & Nutrition: Food, Nutrition & Health

Topic: Nutritional needs and health

Introduction

You will need to know how to make informed choices to enable a varied, healthy and balanced diet

Key words

1. Basal Metabolic Rate (BMR)
2. Physical Activity Level (PAL)
3. Estimated Average Requirement (EARs)
4. Energy Density
5. Amino Acids
6. High Biological Value (HBV)
7. Low Biological Value (LBV)
8. Protein Complementation
9. Kwashiorkor
10. Fatty Acids
11. Glycerol
12. Saturated Fats
13. Unsaturated Fats
14. Fat Soluble vitamins
15. Water Soluble Vitamins
16. Cholesterol
17. Hydrogenation
18. Trans fats
19. Dietary Fibre
20. Constipation
21. Diverticular Disease

Key Points

1. Protein is required by the body for growth, maintenance and repair
2. Fats can be classified as either saturated and unsaturated.
3. Saturated fats are considered to be more harmful to health because they raise levels of cholesterol.
4. Most of our energy should come from complex starchy foods.
5. Vitamins are micronutrients, required in small amounts to do essential jobs in the body.
8. Water soluble vitamins are easily destroyed during preparation and cooking.
9. Water makes up two thirds of the body so it is vital to drink regularly to stay hydrated.
10. Nutritional needs change throughout life, but everyone needs to consider the current healthy eating guidelines when planning meals.
11. Energy balance is the balance of energy consumed through eating and drinking compared to energy burned through physical activity.

Exam Questions

- Recommended percentage of energy intake provided by protein, fat and carbohydrates.
- List the 8 top tips for healthy eating from the NHS.
- How much water should be consumed each day?
- What do the following terms mean – function; source; deficiency; excess?
- What are the fat soluble vitamins?
- What is peak bone mass?
- What is Osteoporosis?

Stretch

- Explain the difference between the terms micronutrient and macronutrient.
- Why is sugar sometimes referred to as 'empty calories'?
- Why should we include more starchy foods and fewer sugary foods in our diet?
- Explain the terms intrinsic and extrinsic sugars.
- Explain the difference between insoluble and soluble fibre.
- Why is a good supply of folic acid needed in early pregnancy?

Further links

http://www.foodafactoflife.org.uk

https://www.nutrition.org.uk

AQA Revision Guide

TRS SP TOPIC NUMBER: 2

Food Preparation & Nutrition: Food, Nutrition & Health

Topic: PROTEIN

Introduction

You must be able to: Demonstrate knowledge and understanding of the functions of protein.

Key words

Keywords

HVB high biological value
LBV low biological value
Protein Complementation

Kwashiorkor
Macronutrient
Amino Acids
Essential Amino Acids

Key Points

1. Protein is required by the body for growth, maintenance and repair.
2. Proteins are built up of units of amino acids.
3. Recommended daily intake of protein is 45g for women, 55g for men.
4. 15 - 25% of calories should come from proteins each day.

Key facts to memorise

Plant based Proteins

Wheat and grains
Nuts and seeds
Kidney beans, chickpeas, lentils
Soybeans (legumes)

Meat based proteins

Meat, fish, eggs, cheese, milk

High and Low Biological Value

HBV are usually animal based proteins meat, fish, eggs, cheese, milk
LBV are usually plant based proteins cereals, pulses, nuts, vegetables

Amino acids

Are the building blocks of protein. They're needed for vital processes like the building of proteins and synthesis of hormones and neurotransmitters. Your body needs 20 different amino acids to grow and function properly. Though all 20 are important for your health only 8 are classed as essential amino acids.

Essential Amino Acids

These essential amino acids can not be made by the body and must come from your diet. They are found in animal proteins such as meat, eggs, milk, cheese.

Protein Complementation

Two foods providing vegetable proteins are eaten as a meal-a cereal (bread) and a pulse (baked beans).
The amino acids of one protein compensates for the limitation of the other. This results in a combination of higher biological value.

Excess Protein can lead to:
Obesity,
Heart diseases,
High blood pressure and
Type 2 diabetes

Deficiency of Protein often occurs in children in developing countries. With kwashiorkor children develop;
swollen abdomen, liver failure, hair loss, flaky skin.

Exam Questions

What are the main sources of protein?
Know the biological value of protein.
Understand the consequences of excess and deficiencies of protein.
What are alternative proteins?
Know RDAs for different life stages.

Further links

AQA Revision guide pg 6
http://www.foodafactoflife.org.uk
https://www.nutrition.org.uk

TRS SP TOPIC NUMBER: 3
Food Preparation & Nutrition: Food, Nutrition & Health
Topic: PROTEIN continued

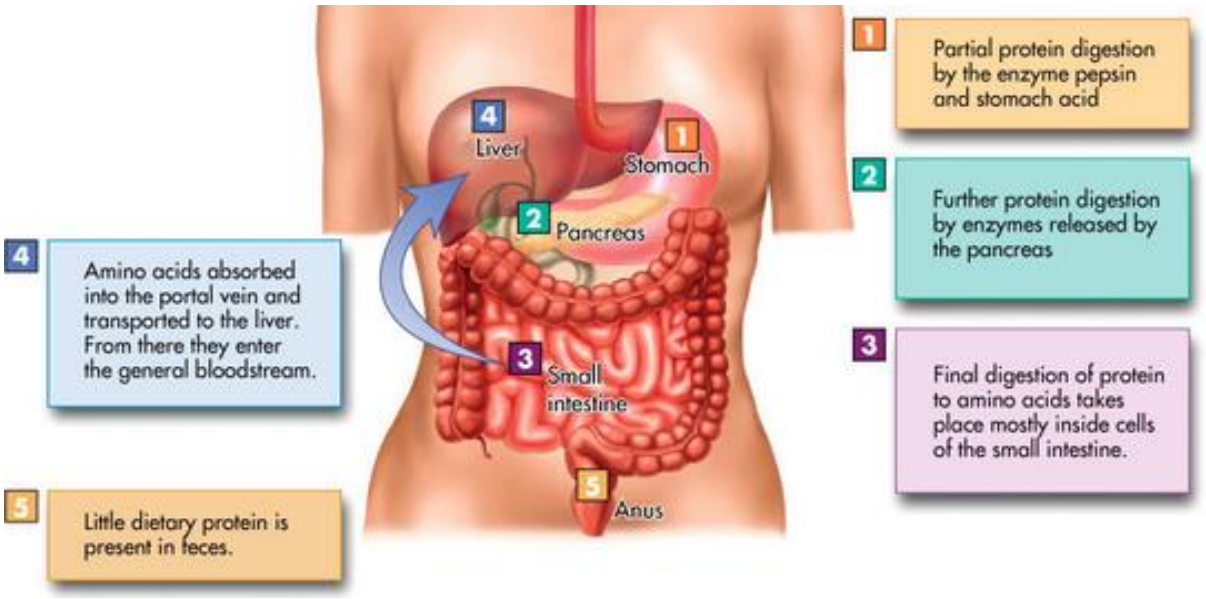
Introduction

How protein is digested and amino acids are formed.

Key words

Keywords
HVB high biological value
LBV low biological value)
Protein Complementation
Kwashiorkor
Macronutrient

Key Points



Further links

www.bbcgoodfood.com/howto/guide/best-sources-protein

TRS SP TOPIC NUMBER: 4

Food Preparation & Nutrition: Food, Nutrition & Health

Topic: CARBOHYDRATES

Introduction

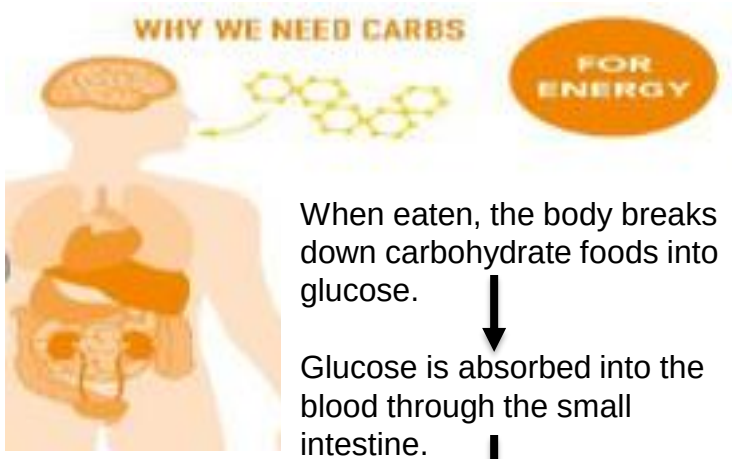
You must be able to: demonstrate knowledge and understanding of the functions, structures and main sources of **carbohydrates**. Understand the consequences of excess and deficiencies of carbohydrates in diet.

Key words

Photosynthesis
Monosaccharides
Disaccharides
Polysaccharides
Non starch Polysaccharide (NSP)

Key Points

1. Carbohydrate provides the body with energy.
2. Most of our energy should come from complex starchy foods.
3. NHS Top Tip base your meal on starchy carbohydrates.
4. Carbohydrates are converted to energy quicker than fat and protein sources.
5. 1/3 of your diet should come from starchy foods.
6. Starch is a complex carbohydrate.
7. Sugars and starch are both carbohydrates.



When eaten, the body breaks down carbohydrate foods into glucose.

↓

Glucose is absorbed into the blood through the small intestine.

↓

The pancreas produces insulin to allow glucose to enter cells.

Exam Questions

1.What is the recommended percentage of daily intake for carbohydrates
2. Name the two types of carbohydrates
3. What in the consequence of excess carbohydrates in your diet
4. Give examples of food sources that contain: Glucose; Fructose; Sucrose
5. What are the main functions of carbohydrates in the diet?

Stretch

Explain the scientific principles underlying gelatinisation, dextrinisation and Caramelisation when preparing and cooking food. The working characteristics, functional and chemical properties of carbohydrates.

Further links

www.grainchain.com

TRS SP TOPIC NUMBER: 5

Food Preparation & Nutrition: Food Science.

Topic: Functional and chemical properties of food

Introduction

Demonstrate knowledge of the working characteristics, functional and chemical properties of carbohydrates.

Key words

Shortening
Plasticity
Aeration
Creaming
Foam
Denaturation
Ph level
Marinade
Enzymic Browning
Oxidation

Physical raising agents
Chemical raising agents
Yeast
Bicarbonate of soda
Baking Powder
Fermentation
Carbon Dioxide

Palatability
Microwave
Radiation
Conduction
Convection

Key Points

Caramelisation

Dextrinisation

1. Cooking food makes it safe, allows it to keep for longer and makes it more palatable.
2. Cooking methods can achieve specific characteristics in food.
3. Heat is transferred by conduction, convection and radiation. Cooking commonly uses a combination of heat transfer methods.
4. Proteins are denatured during cooking. Egg proteins coagulate or set when they are heated.
5. Wheat flour contains the protein gluten. Gluten forms the structure of pastries, breads and cakes.
6. Enzymes can cause the browning of fruit and vegetables. Fruit and vegetables need careful handling during preparation to prevent enzymic browning.
7. Gelatinisation is the function of starches as thickening agents.
8. Sauces can be different thicknesses when the proportion of ingredients is altered.
9. Dextrinisation is the term used to describe browning of starch caused by heat.
10. Fat makes pastry short and crumbly.
11. Caramelisation is the browning of sugars caused by heat.
12. Fats give colour and flavour to pastry. The plasticity of fat allows it to be used for rubbing in, spreading and creaming..
13. Emulsions are mixtures of liquids that do not normally mix. E.g oil and water. Egg yolks contain lecithin, a natural emulsifier. Eggs help stabilise mayonnaise.

Exam Questions

State four reasons why we cook our food.
Describe the 3 methods of heat transfer.
Give examples of foods cooked by each method
What is the term used to explain the way heat changes the texture of egg proteins?
What causes the browning of cut fruit and vegetables?
What is the main heat transfer method when boiling food?
What sort of heat transfer commonly causes dextrinization?
What term describes thickening a sauce using starch?
What term describes how fat makes a short texture product?
Which basic cake making process traps air into the cake?

Stretch

How is heat transferred in a microwave oven?
Explain the difference between denaturing, coagulation, gelatinisation and dextrinisation.
How would you stop apple in a fruit salad from going brown?
How does egg white trap air?

Further links

www.ifst.org/lovefoodlovescience

TRS SP TOPIC NUMBER: 6

Food Preparation & Nutrition: Food, Nutrition & Health

Topic: Macronutrients -FATS

Introduction

You must be able to: Demonstrate knowledge and understanding of the functions, structures and main sources of **fat**.
Understand the consequences of excess and deficiencies of fats in diet.

Key words

Keywords
Cholesterol
Obesity
Cardio vascular disease
Saturated Fats
Unsaturated Fats
Diabetic
Hydrogenated fats
Shortening
Aeration
Plasticity
Emulsification

Key Points

1. Fats can be classified as either saturated and unsaturated.
2. Saturated fats are considered to be more harmful to health because they raise levels of cholesterol.
3. Processed/fast food contain high levels of fat
4. Fat extends shelf life
5.Fat add flavour to foods

Unsaturated fats
are plant based and usually come in liquid form.

Saturated fats
are animal based and usually come in solid form.

Hydrogenated fats
Margarines that have been designed to improve how easy it is to spread (plasticity) .

Omega-3 fatty acids are found in oily fish like salmon and flaxseed and canola oils

Exam Questions

1.What are the functions of fat in the diet ?
2. Name 3 diseases related to a high fat diet.
3. List 3 sources of unsaturated fats.
4. List 3 sources of saturated fat.
5. List the fat based cooking methods.
6. List 4 solutions to reduce fat intake in your diet.

Stretch

Explain the scientific principles underlying these processes when preparing and cooking food.

Explain the working characteristics, functional properties of fats and oils

Further links

www.ifst.org/lovefoodlovescience/resources/fats-and-oils-shortening

www.bhf.org.uk

TRS SP TOPIC NUMBER: 7
Food Preparation & Nutrition: Food, Nutrition & Health
Topic: Micronutrients. Vitamins and Minerals

Introduction

Demonstrate the knowledge and understanding of the sources and functions of vitamins and minerals.

Key words

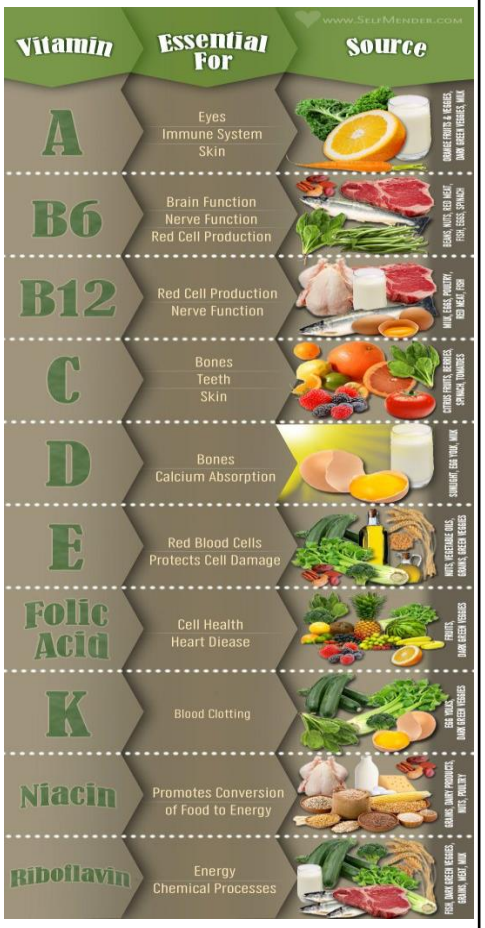
1. Fortified
2. Rickets
3. Antioxidant
4. Thiamin
5. Riboflavin
6. Spina bifida
7. Ascorbic acid
8. Haemoglobin
9. Anaemia
10. Thyroid

Key points

1. Vitamins are micronutrients, required in small amounts to do essential jobs in the body.
2. Water soluble vitamins are easily destroyed during preparation and cooking. Vitamin **A** and **C**
3. Fat soluble vitamins are **A and D**
4. Water makes up two thirds of the body so it is vital to drink regularly to stay hydrated.
5. Nutritional needs change throughout life, but everyone needs to consider the current healthy eating guidelines when planning meals.

Key Points

Type	Benefits	Sources	Quantity
Calcium	Calcium is vital for building strong bones and teeth. The time to build strong bones is during childhood and the teen years, so it's very important to get enough calcium now to fight against bone loss later in life. Weak bones are susceptible to a condition called osteoporosis, which causes bones to break easily.	Milk and other dairy products — such as yogurt, cheese, and cottage cheese — are good sources of calcium. You'll also find this mineral in broccoli and dark green, leafy vegetables. Soy foods and foods fortified with calcium, including some kinds of orange juice and soy milk, are also good sources.	Teen boys and girls need 1,300 mg (milligrams) of calcium each day.
Iron	Iron helps red blood cells carry oxygen to all parts of the body. Symptoms of iron-deficiency anaemia include weakness and fatigue, light headedness, and shortness of breath.	Iron-rich foods include red meat, pork, fish and shellfish, poultry, lentils, beans and soy foods, green leafy vegetables, and raisins. Some flours, cereals, and grain products are also fortified with iron.	Teen boys need 11 mg of iron a day and teen girls need 15 mg. Girls need higher amounts because they lose iron through blood during menstruation .



Exam questions

What are the consequences of deficiencies for vitamins and minerals?
What vitamins are fat soluble and water soluble?
Which vitamins contain antioxidants?

TRS SP TOPIC NUMBER: 8

Food Preparation & Nutrition: Food Safety

Topic: Food Hygiene

Introduction

The importance of preparing, storing and cooking food safely to prevent spoilage and contamination that could cause food poisoning.

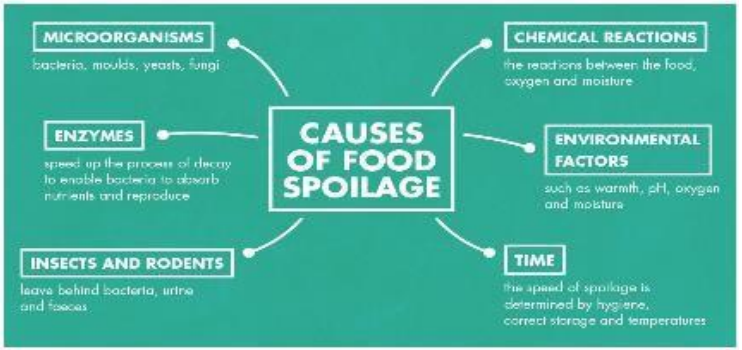
Key words

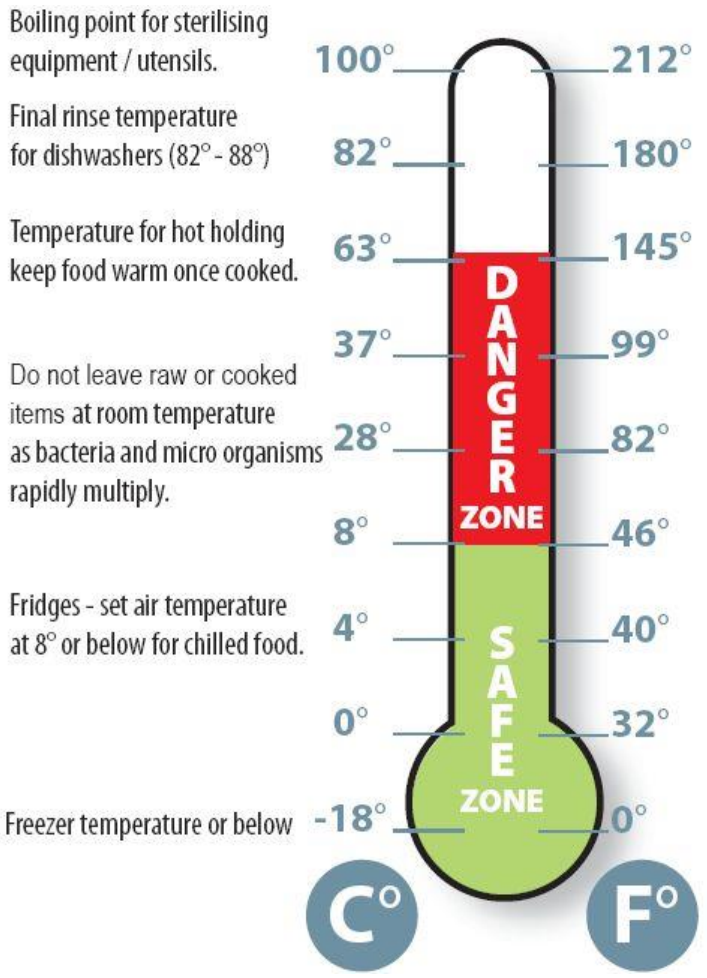
1. Use by date
2. Best before date
3. Frozen Food
4. Chilled Food
5. High risk foods
6. Low risk foods
7. Danger zone
8. Hygiene

Key points

1. Bacteria is found everywhere and needs the right temperature, warmth, time, nutrients, pH level and oxygen to grow and multiply.
2. Microorganisms (bacteria) are used to make a wide range of food products.
3. Bacteria are used to make cheese, yogurt and bread.
4. The most important bacteria in food manufacturing are Lactobacillus species.
5. Bacterial contamination is the presence of harmful bacteria in our food, which can lead to food poisoning and illness.
6. As a food handler you must do everything possible to prevent this contamination.

Key Points





Exam Questions

- What are the different sources of bacterial contamination?
- Name three bacteria responsible for food poisoning?
- List the 4 requirement needed for rapid bacterial growth.
- What are the main symptoms of food poisoning?
- What are the food safety principles when buying and storing food?
- What temperature should a fridge be?
- What temperature should a freezer be?
- What is the danger zone temperature?

Stretch

Explain why enzymes are biological catalysts usually made from proteins.

Further links

www.foodsafety.com

TRS SP TOPIC NUMBER: 9
Food Preparation & Nutrition: Food Science Topic: NEA 1

Planning

Variable (A factor in your investigation)
Independent Variable (The thing you change each time)
Dependent Variable (The thing you measure each time)
Control Variable (The thing you keep the same

Processing your data

Anomalies: A result that is really different from the others. It could be a mistake or real
Mean: The average. Add up all the numbers, then divide by how many numbers there are.
THE WRITE UP….

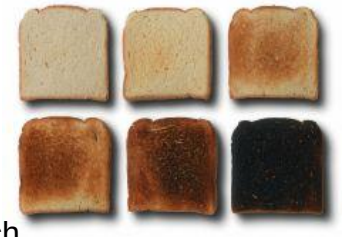
Key words

Analysis: What patterns are in your data? Are there any anomalies? Can you explain these?
Evaluation: What went well in your experiment? What could you do better if you repeated it again?

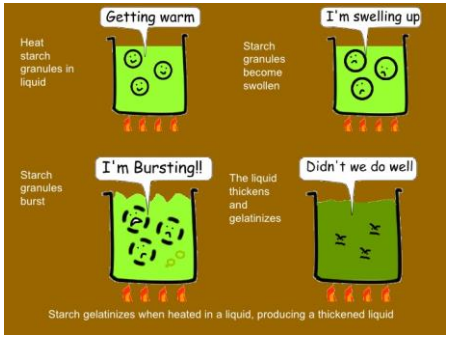
Key Points

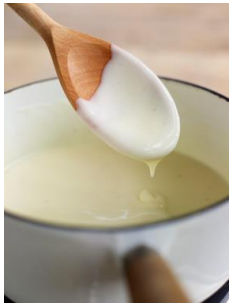
Caramelisation: Occurs by heating sugars at a high temperature to remove water. This produces a brown colour and a nutty flavour

Dextrinisation: Is the process involved when starchy foods go brown by dry heat (no water).



Gelatinisation: Thickening a liquid (sauce) by heating starch.





Enzymic browning: A number of mechanisms are responsible for browning reactions in foods. This experiment will examine the action of an enzyme called polyphenol esterase which is naturally present in many fruits and vegetables

Further links

www.ifst.org/lovefoodlovescience

TRS SP TOPIC NUMBER: 10
Food Preparation & Nutrition: Food Provenance
Topic: Food labelling and sensory evaluation

Introduction

You must show understanding of the legal requirements for food labelling and describe the importance of sensory evaluation.

Key words

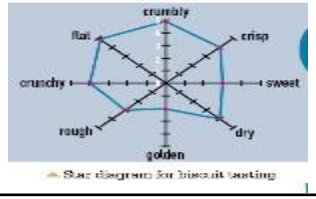
Vegetarian
Ovo-lacto vegetarian
Vegan
Lacto vegetarian
Diabetes
Coeliac
Gluten
Lactose intolerance
Anaphylaxis
Epi pen
Olfactory
Sensory analysis
Palate
Sensory characteristics
Rating Tests
Ranking tests
Star profile
Triangle testing
Paired preference tests

Key Points

If you can't tolerate certain foods you have to change your diet.
Some religions have their own dietary laws and rules.
Diabetes is a condition caused because the pancreas doesn't produce any or enough insulin.
Coeliac disease is a condition where people have an adverse reaction to gluten.
Lactose intolerance is caused when the body is unable to digest lactose (a sugar found in milk and diary products).
An allergy to nuts can cause anaphylaxis.
The reasons why people become vegetarian include religion, dietary laws, ethical reasons, health or family.
Cuisine relates to the established range of dishes and foods of a particular country or religion.
Cuisine is also concerned with the use of distinctive ingredients and specific cooking and serving techniques.
Accurate sensory testing of foods helps manufacturers and cooks develop food products and improve recipes.
The human olfactory system (smell) and taste sensors are important when tasting food.
People need to make informed choices about the food they buy based on their income, lifestyle and preferences from the food available to them.

Sensory Analysis

Attribute testing



Exam Questions

- What are the factors that affect the food we eat?
- What religions traditionally do not eat pork?
- Which foods do people with coeliac disease not include in their diets?
- Name two traditional British dishes.
- List the stages used to carry out a controlled sensory analysis
- What is triangular testing?
- What information must be included on food labels by law?
- What is the difference between functional and fortified foods?

Stretch

- Why is it important to use codes when tasting foods?
- How has customer demand changed school meals over recent years?
- Name some different technological developments within the food industry and explain how these have affected food choice

Further links

www.foodafactoflife.org.uk
www.bbc.co.uk › Home › Design & Technology › Food technology

TRS SP TOPIC NUMBER: 11
Food Preparation & Nutrition: Topic: Food Provenance

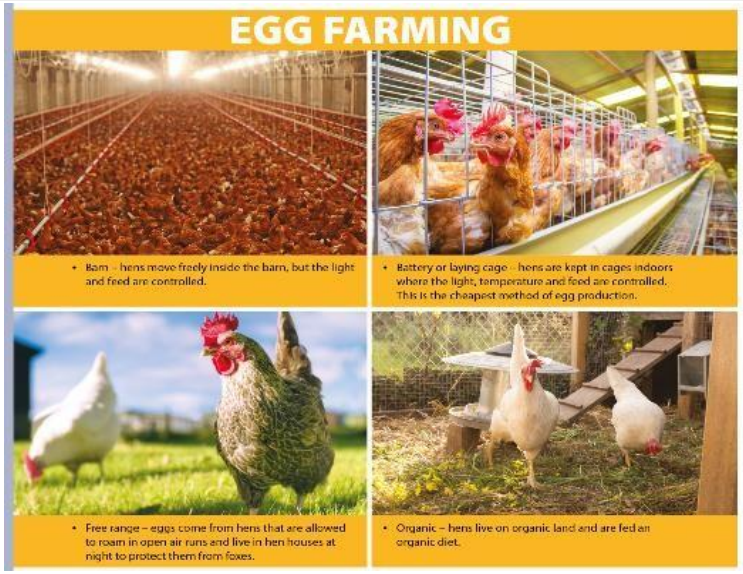
Introduction

Demonstrate knowledge and understanding of the environment issues associated with food and its production.

Key words

Transportation
Barn reared animals
Organic
Genetically Modified (GM)
Free range
Hydroponics
Fish Farms
Intensive farming
Green house gases (GHG's)
Crop rotation
Fairtrade
Homogenised
Primary and Secondary processing
Pasteurised
Skimmed
Semi skimmed
Ultra heat treated (UHT)
Sterilised
Evaporated
Food Miles
Food Origin
Climate Change
Carbon Footprint
Recycling
Packaging
Landfill
Food Waste
Composting
Red Tractor
Climate change
Sustainability of food
Deforestation
Condensed
Preservation
Temperature
Drying
Chemical Preservation
Modified Atmospheric Packaging
Vacuum packaging,
Irradiation

Key Points



Exam Questions

- Explain what food miles are.
- Give two ways that fish stocks can be made more sustainable than intensive farming.
- What are the benefits of free range farming?
- What does the flag on the Red Tractor logo mean?
- Which two gases contribute to global warming?
- What is the outer skin on the wheat grain called?
- What is homogenised milk?
- What type of flour is used to make pasta?
- Which vitamins may be lost during irradiation?

Stretch

- Explain the difference between different farming methods.
- Explain the environmental advantages of using seasonal foods.
- Why is it important that the origins of food can be traced?
- How does Fairtrade support farmers in developing countries?
- How does vacuum packaging differ to MAP?

Further links

meatandeducation.redmeatinfo.com › Resources › GCSE Support

TRS SP TOPIC NUMBER: 12

Food Preparation & Nutrition: Food Preparation

Topic: Knife Skills

Introduction

Demonstrate knowledge of a variety of knife skills. Fillet a chicken breast portion a chicken, fillet a fish. Bridge hold, claw grip,peel,slice,dice cut into even strips – julienne

Key words

Key words - Veg
Bridge hold
Claw grip
Jardinière
Julienne
Macedoine
Chiffonade
Dicing
Chopping
Paring
Flexible
Filleting
Cooking

Keywords - Meat
Collagen
Elastin
Myoglobin
Muscle Fibre
Maillard Reaction
Non enzymic browning
Gelatine
Cross Contamination

Keywords - Fish
Salting
Connective tissue
Coagulate
Crustacean
Mollusc
White fish
Flat fish
Oil fish
Shellfish
Classification
Omega 3 fatty acid

Key Points

1. Specific types of knives are designed for different cutting and shaping tasks.
2. Knives are dangerous if not handled correctly and care should be taken at all times.
3. A flat and stable cutting surface is essential to avoid injury when cutting food.
4. There are specific terms used for vegetable cuts relating to the size and shape of the outcome.
5. White fish carry oil in the liver; oily fish carry oil throughout the flesh.
6. It's important to wash your hands after handling fish to prevent cross contamination.
7. The length and type of cooking method depends on the type of muscle fibre.
8. Enzymic activity occurs when cut fruit and vegetables react with oxygen to turn them brown.
9. Various foods can be coated with ingredients to create a new layer to protect, add texture and flavour – this is called coating or enrobing.

Exam Questions

Name the two methods of holding food when cutting it.
Explain the meaning of poultry, game and offal.
Name 3 meat products.
Which type of fish contains the most Omega 3 fatty acids?
Tough meat has what length of fibres?
Give the main reason for cooking meat.

Stretch

Give reasons why chicken is a popular consumer choice today.
Describe two quality checks for fresh fish.
Why are some cuts of meat more suitable for stewing and some from roasting?
How does the use of a marinade help to tenderise meat?
Explain how a tough cut of meat becomes tender during searing.

Further links

www.bbc.com/food/techniques/chopping_vegetable

www.tes.com/teaching-resource/knife-skills-6361369

TRS SP TOPIC NUMBER: 13

Food Preparation & Nutrition: Topic:Food Preparation Skills- Cake making

Introduction
Demonstrate knowledge and understanding of the different cake making methods.

Understand the difference between chemical, natural and mechanical raising agents

Key words

Aeration
Whisking
Rubbing In
Melting
Creaming
Dextrinisation
Caramelisation
Preservative
Enrich
Steam
Enrobing

There are five main methods of cake making:

RUBBED IN

PROPORTION OF FAT TO FLOUR: ½ or less
PROPORTION OF SUGAR TO FLOUR: ½ or less

TECHNIQUE USED TO MAKE:
Fat rubbed into flour, sugar and other dry ingredients added, egg and liquid (if used) added

EXAMPLES:
Rock cakes, raspberry buns, fruit cake, Welsh cakes

CREAMING

PROPORTION OF FAT TO FLOUR: equal
PROPORTION OF SUGAR TO FLOUR: equal

TECHNIQUE USED TO MAKE:
Fat and sugar are mixed, egg added and flour folded in with any other ingredients

EXAMPLES:
Queen cakes, fairy cakes, Victoria sandwich, Madeira, cherry, Dundee

WHISKING

PROPORTION OF FAT TO FLOUR: no fat used
PROPORTION OF SUGAR TO FLOUR: equal

TECHNIQUE USED TO MAKE:
Eggs and sugar are whisked, flour folded in

EXAMPLES:
Swiss roll, Genoese sponge cake

MELTING

PROPORTION OF FAT TO FLOUR: ½ or less
PROPORTION OF SUGAR TO FLOUR: equal

TECHNIQUE USED TO MAKE:
Fat melted with sugar and syrup or treacle, egg added with the flour and other ingredients

EXAMPLES:
Gingerbread, parkin, brownies

ALL-IN-ONE

PROPORTION OF FAT TO FLOUR: equal
PROPORTION OF SUGAR TO FLOUR: equal

TECHNIQUE USED TO MAKE:
All ingredients mixed together at the same time

EXAMPLES:
Small cakes, muffins

Exam Questions

- Name the 4 different methods of cake making and give examples.
- What are the functions of the ingredients in a basic cake recipe?

Stretch

- Explain how aeration can occur in cake making.
- How could you adapt a basic cake recipe to make it:
  a. healthier;
  b. have a different colour;
  c. have a different flavour;
  d. have a different surface appearance?

Further links

www.bbc.co.uk/schools/gcsebitesize/design/foodtech/functionalpropertiesrev4.shtml

TRS SP TOPIC NUMBER: 14

Food Preparation & Nutrition: Topic: Food Preparation Skills. Pastry

Introduction

Demonstrate knowledge of the different types of pastries. Evidence suitability and the different types of techniques used to give desired out comes.

Key words

Choux
Flaky
Shortcrust
Suet
Shorten
Dextrinisation
Bind
Sealing
Glazing
Baking Blind
Shrinking
Crimping
Quality Finish

Key Points

SHORTCRUST* / ALL-IN-ONE

RECOMMENDED FAT TO USE:

PROPORTION OF FAT TO FLOUR:

TYPE OF FLOUR:

TECHNIQUE USED TO MAKE:

SUET

RECOMMENDED FAT TO USE:

PROPORTION OF FAT TO FLOUR:

TYPE OF FLOUR:

TECHNIQUE USED TO MAKE:

FLAKY, PUFF / ROUGH PUFF

RECOMMENDED FAT TO USE:

PROPORTION OF FAT TO FLOUR:

TYPE OF FLOUR:

TECHNIQUE USED TO MAKE:

CHOUX

RECOMMENDED FAT TO USE:

PROPORTION OF FAT TO FLOUR:

TYPE OF FLOUR:

TECHNIQUE USED TO MAKE:

Exam Questions

- Name 4 different types of pastry.
- For each type of pastry name 2 food products that can made from each.

Stretch

- Explain what is meant by the term ‘shorten’.
- Explain the function of ingredients in pastry making.
- How could your reduce the amount of saturated fat in a shortcrust pastry pie?
- Why would you bake a pastry case ‘blind’ and explain how you would do this?

Further links

www.ifst.org/lovefoodlovescience/resources/fats-and-oils-shorteningLovefoodlovescience.com
www.grainchain.com

TRS SP TOPIC NUMBER: 15

Food Preparation & Nutrition: Topic: Food Preparation Skills. Sauces

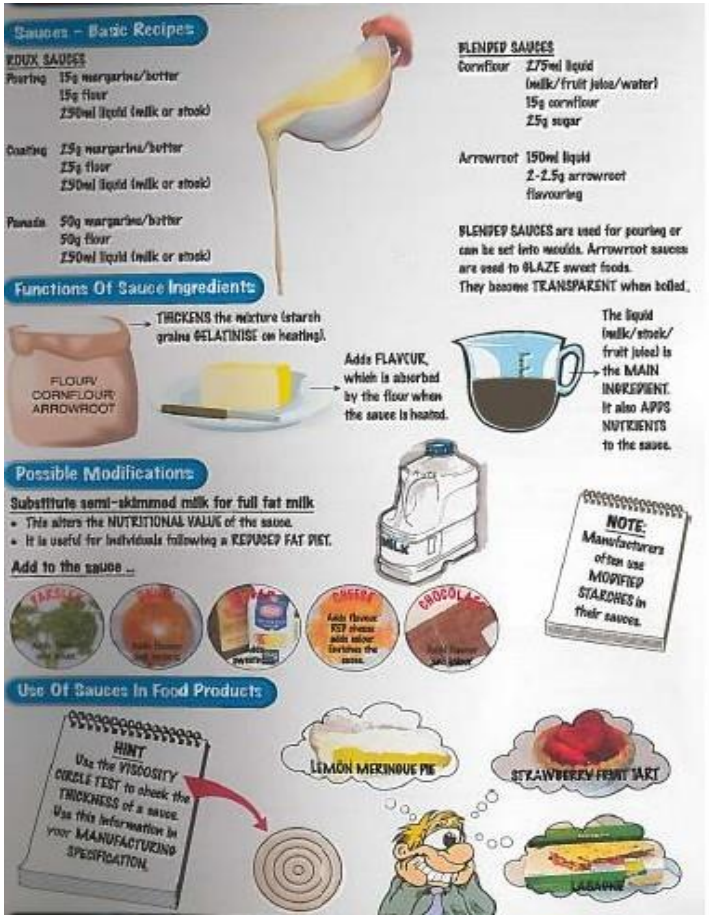
Introduction

Demonstrating starch gelatinisation such a roux, all in one, blended, veloute or béchamel. How starch/liquid ratio affect viscosity

Key words

Roux
Coating
Panada
Cornflour
Arrowroot
Blended
Glaze
Gelatinisation
Modified starches

Key Points



Béchamel sauce (also known as white sauce) is made from a white roux and milk. It is used as the base for other sauces.

Ragu Sauce

Finely chop celery, carrots and onions, Fry them gently in olive oil until softened and golden-brown.

Add tomatoes, basil, bay leaf, tomato purée, water, salt and freshly ground black pepper. Mix well, cover with a lid and allow to simmer on a low heat for approximately 30 minutes

Exam Questions

- Name the 3 types of sauces that can be made using the roux method.
- What modifications could you make to a sauce to:
  a. add flavour;
  b. reduce the fat content?

Stretch

- Explain how you could test the thickness of a sauce.
- Explain how flour, cornflour and arrowroot thicken a sauce.
- Why might a sauce contain lumps?

Further links

www.bbc.com/food/recipes/bechamelsauce

www.bbcgoodfood.com/recipes/2982678/white-sauce

TRS SP TOPIC NUMBER: 16

Food Preparation & Nutrition: Food Science Topic: NEA 1

Introduction

NEA 1 is worth 15%. Your coursework will be marked as follows:

Exam tips

To maximise your grade, evidence the following

Research

1	2	3	4	5	6
• Limited research into how ingredients work and the reasons why. • Limited explanation of how the research may be used to inform the investigation. • Limited evidence of planning, with a basic approach to the investigation. • A basic hypothesis or prediction has been stated.		• Relevant research into how ingredients work and the reasons why. • Explanation of how the research is used to inform the investigation. • Planned an investigation which relates to the research, some justification given. • A hypothesis or prediction has been stated.		• Relevant, detailed and concise research into how ingredients work and the reasons why. • Detailed explanation shows a high level of understanding of how the research has been used to inform the practical investigation. • Planned and justified a detailed investigation, related to the research with a clear and focused hypothesis or prediction.	

Investigation

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
• Practical investigations/experiments show some knowledge and understanding of how ingredients work with some links to the hypothesis or prediction. • Some testing has been carried out to formulate the results. • Practical investigations are recorded with limited explanation.					• Practical investigations/experiments show very good knowledge and understanding of how ingredients work and why with a link to the hypothesis or prediction. • A range of testing has been carried out to formulate the results. • Practical investigations are recorded with very good explanation using methods such as: graphs, tables, charts, sensory analysis methods, labelled diagrams, annotated photographic evidence.					• Practical investigations show detailed and high level knowledge and understanding of how ingredients work and why with a clear link to the hypothesis or prediction. • A wide range of testing has been carried out to formulate the results. • Practical investigations are recorded and meticulously explained using methods such as: graphs, tables, charts, sensory analysis methods, labelled diagrams, annotated photographic evidence.				

Analysis and Evaluation

1	2	3	4	5	6	7	8	9
• Some analysis of the results from the hypothesis/investigation and an attempt at drawing conclusions. • The report demonstrates some understanding of how ingredients work and why. • Limited explanation of how the results can be applied when preparing and cooking food. • The report is communicated at a simplistic level with a limited use of technical vocabulary.			• Relevant interpretation and analysis of the results with conclusions of the hypothesis/investigation with some justification. • The report demonstrates good understanding of how ingredients work and why. • Explanation and review of how the results can be applied when preparing and cooking food. • The report is communicated with clarity and with use of technical language.			• Detailed, accurate interpretation and analysis of the results with justified conclusions for all aspects of the hypothesis/investigation. • The report demonstrates an in-depth and specialist understanding of how ingredients work and why. • Detailed explanation/reflection of how the results can be applied when preparing and cooking food. • The report is communicated in a structured and coherent manner with accurate use of technical		

Further links

www.ifst.org/lovefoodlovescience

TRS SP TOPIC NUMBER: 17

Food Preparation & Nutrition: Food Science Topic: NEA 2 (Practical element)

Introduction

NEA 2 is worth 35%. Your practical exam will be graded as follows:

Exam tips

To maximise your grade, evidence the following skills

	4 Marks	3 Marks	2 Marks	1 Mark	0 Marks	Total
Selection of equipment	Selection of equipment demonstrates **excellent knowledge** using all selected equipment	Clear evidence of correct selection of equipment and **competent use** of a range of equipment	Evidence of most equipment used correctly, some guidance required.	Some equipment correctly selected, **limited competency** of the use of equipment demonstrated	Incorrect selection and use of equipment	
Knife skills	Evidence of a **range of knife techniques** executed with a range of skills and competence	Evidence of at least **2 knife techniques** well executed	At least **1 knife skill** well executed	Knife skills attempted but poorly executed	Incorrect use of knifes	
Weighing and measuring		Accurate weighing and measuring **of all** ingredients	**Most** ingredients accurately weighed and measured	**Limited** accuracy when weighing and measuring	No competency when weighing and measuring	

	7-8 Marks	5-6 Marks	3-4 Marks	1-2 Marks	0 Marks	Total
Preparation skills	**4 or more skills** evident from the skills list, excellent competency displayed	**3 or more skills** evident from the skills list, good degree of accuracy	**2-3 skills evident** from the skills list, satisfactory level of accuracy	**1-2 skills** evident from the skills list, carried out with limited accuracy	No credit worthy or not attempted	

Further links

www.aqa.org.uk/subjects/food/gcse/food-preparation-and-nutrition-8585

TRS SP TOPIC NUMBER: 18

Food Preparation & Nutrition: Food Science Topic: NEA 2 (Practical element)

Introduction

NEA 2 is worth 35%. Your practical exam will be graded as follows:

Exam tips

To maximise your grade, evidence the following skills

	11-15	6-10	1-5	0	Total
Production of the meal	**Worked independently Extremely competent** and confident throughout	Worked safely and organised throughout, **little or no assistance**	Limited organisational skills, **frequent assistance**	Not organised, requiring **constant support**	
	Followed timeplan correctly	Order of work has been followed	Order of work has not been followed	No order of work	
	All completed in the time available, **excellent organisation**	May have **completed some over time**	Only **one** of the 3 dishes is **made in the time**	All dishes served after the required time	
	11-15	**6-10**	**1-5**	**0**	
	Excellent use of **at least 2 different cooking methods.**	Good use of **different cooking methods**	Evidence of different cooking methods, but **limited degree of competence**	Not worthy of any credit	
	Excellent demonstration of knowledge and cooking times, **adjusts as required**	Changes may have had to be made to the order of work and/or some incorrect judgements	Reliance on some pre-prepared or pre-made ingredients	Most of the dishes were made from pre-made or pre-prepared ingredients	

Further links

www.aqa.org.uk/subjects/food/gcse/food-preparation-and-nutrition-8585

TRS SP TOPIC NUMBER: 19

Food Preparation & Nutrition: Food Science Topic: NEA 2 (Practical element)

Introduction

NEA 2 is worth 35%. Your practical exam will be graded as follows:

Exam tips

To maximise your grade, evidence the following skills

	6-8 Marks	3-5 Marks	1-2 Marks	0 Marks	Total
Presentation of the final 3 dishes	Excellent attention to detail in all 3 final dishes.	Good standard of presentation is evident.	Presentation of the dishes is limited.	Not attempted.	
	Excellent use of garnishes. A range of colours evident, which enhance the overall appearance.	A variety of colours may be present in some of the dishes.	Colours of the dishes may be similar or lack variety.	All dishes are similar.	
	Plenty of time allowed to present dishes to an excellent standard.	Time was allowed to present dishes attractively.	Lack of care/attention when presenting dishes.	No care to presentation.	
	Accurate portion control in all dishes.	Some attempt at portion control is evident.	Limited evidence of portion control or garnishes.	No thought to portion control.	

	3 Marks	2 Marks	1 Mark	0 Marks	Total
Seasoning and garnishing	Excellent knowledge demonstrated in relation to seasoning. All dishes tasted and accurately seasoned	Good knowledge demonstrated in relation to seasoning. All dishes tasted and generally seasoned	Limited attempt to season dishes. Some dishes were tasted and seasoned throughout the practical session.	No evidence of tasting or seasoning dishes.	

Further links

www.aqa.org.uk/subjects/food/gcse/food-preparation-and-nutrition-8585

Notes page

Notes page

Notes page

Y11 GCSE Exam Dates

Y11 Mock(s): _____

Y11 PPE(s): _____

Final GCSE(s): _____

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Success Programme Sessions:

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Revision Guide (if applicable):

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Notes

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