Year 10 Food Preparation & Nutrition: Meat, poultry, fish & eggs

Types

Animals used for meat in the UK are cattle (for beef or veal), sheep (for lamb or mutton) and pigs (for pork, ham or gammon).

Poultry is the name given to birds reared on farms for their meat e.g. chicken and turkey.

Game is meat sourced from wild animals e.g. rabbit.

Offal is the name given the edible internal organs of the animal or bird e.g. liver, kidney.

Fish can be caught or reared in farms. It is classified as: white e.g. cod, haddock; oily e.g. salmon, tuna; or shell e.g. prawns, mussels.

Most of the eggs we eat come from chickens.

Methods of cooking

Tougher cuts of meat and poultry need long, slow cooking to make them tender. More tender cuts of meat and poultry and all fish can be cooked more quickly.

Baking - uses the dry, hot air of the oven.

Toasting - dry radiant heat is applied to food.

Roasting - use the dry, hot air of the oven. Food is basted with hot fat. **Grilling** - dry radiant heat is applied to food.

Stir frying - small pieces of food are cooked quickly in a small amount of fat.

Shallow frying - Small, tender pieces of food are cooked in a small amount of very hot oil.

Deep frying - foods are submerged into very hot oil.

Steaming - Tender foods are cooked in the steam of boiling water.

Simmering - food is submerged in liquid that is gently bubbling.

Boiling - food is cooked in vigorously boiling water.

Stewing - food is submerged in liquid and cooked slowly.

Poaching - small pieces of tender food are cooked in a small amount of simmering liquid.

Why is food cooked?

- To make it easier to digest
- To kill harmful bacteria, making it safe to eat which prevents food poisoning

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- To improve the flavour
- To add colour/improve the appearance
- To improve the texture; to make it more tender

Before cooking, meat is sometimes marinaded for several hours in a mixture of oil, vinegar, herbs and spices. This adds flavour and tenderises the meat.

Main nutrients in meat, poultry, fish and eggs

Nutrient	Function
Protein	Growth, repair and maintenance of cells
Fat	Energy, warmth, protection of organs, a carrier for fat soluble vitamins—A, D, E and K
Iron	Helps to make haemoglobin in the red blood cells which carry oxygen around the body
Vitamin A	Immune system, helps us to see in dim light
B Vitamins	Help to release energy; healthy nervous system
Vitamin D	Healthy bones and teeth, helps the body to absorb calcium

All of these foods contain low amounts of carbohydrate and no fibre.

Oily fish are a good source of omega-3.



Key vocabulary

Conduction	Transfer of heat between two surfaces by direct contact; molecules pass heat to each other	
Convection	Transfer of heat by the circulation of either heated liquid or gas	
Radiation	Heat is transferred by waves—no physical contact	
Marinading	Soaking foods in liquid to tenderise and add flavour	
High risk foods	Foods that are ideal for the growth of bacteria; high in protein and water e.g. milk, eggs, raw chicken	
Cross- contamination	The transfer of bacteria from one food to another	
Omega-3	An essential fatty acid that the body cannot make	
Albumen	The white part of an egg	
Coagulation	The setting of protein from a liquid to a solid state	
Aeration	Adding air into a mixture	

Sustainability of fish

Overfishing is when more fish are caught than can be replaced by natural reproduction, making some species in danger of becoming extinct e.g. Bluefin tuna. Alternative fishing methods e.g. longline fishing, fishing quotas and regulating net size are all sustainable methods that don't damage the environment.

Food poisoning

You can get food poisoning by eating food contaminated with pathogenic bacteria. There are many different types: Campylobacter, Salmonella, Staphylococcus Aureus, E. coli. Symptoms include: abdominal pain, diarrhoea, nausea, vomiting and fever.

High Risk Foods

High risk foods are the ideal medium for the growth of bacteria and can therefore cause food poisoning. They are high in protein and water. Examples are fish, meat, poultry, seafood, cheese, milk, eggs, cooked rice and stock.

Function of eggs

Aeration - protein stretches and traps air to make a foam.

Coagulation - eggs become solid when heated.

Glazing - beaten egg is brushed over the surface of food to give a shine and brown colour.

Emulsification - egg yolk holds together oil and water.

Enriching - adds nutrients.

Garnishing - adds colour to a finished dish.