

YEAR 6 FOOD NUTRITION AND PREPARATION



Fruit and vegetables are a good source of vitamins, minerals and fibre.



Starchy foods are a good source of energy and the main source of a range of nutrients in our diet.



Water, lower-fat milks and lower-sugar or sugar-free drinks, including tea and coffee, all count.



Unsaturated fats are healthier fats and include vegetable, rapeseed, olive and sunflower oils



Eat foods high in fat, salt and sugar less often and in small amounts



These foods are good sources of protein, vitamins and minerals. Pulses, such as beans, peas and lentils, are good alternatives to meat because they're lower in fat and higher in fibre and



Milk, cheese, yoghurt and fromage frais are good sources of protein and some vitamins, and they're also an important source of calcium, which helps keep our bones healthy.

Macronutrients-
We need these in large amounts.

Nutrient

Carbohydrates

Key Information

Breaks down into starch and sugar. 1/3 of our diet should consist of starchy carbs. Wholegrain versions are higher in fibre.

Main Functions in Body

Starch (complex carbohydrate)– Gives slow release energy.
Fibre–Helps digestive system.
Sugar (simple carbohydrate) – Gives fast energy.
Growth, repair and of muscles and cells.
Body chemicals (hormones & enzymes).
Secondary source of energy.

Foods

Potatoes, bread, pasta, cereals, rice.
(choose wholegrain versions to get more fibre).
Meat, fish, eggs, nuts, seeds, pulses, lentils.

Protein

Broken down into HBV (mainly from animal sources) and LBV (from plant sources) proteins.

Fat

Broken down into saturated and unsaturated fats. Saturated fats are bad if eaten in large amounts.

Insulates our vital organs (heart, lungs etc)and keeps us warm.
Gives concentration.

Butter ,lard, margarine, sunflower oil, olive oil etc.



Types of microorganisms in foods

Food spoilage

Food products can't be stored for a long time without changes taking place. The changes that often occur are to the taste, texture and colour of the food.

Microorganisms and enzymes cause food spoilage and can cause food poisoning. The three types of microorganism causing food spoilage are:

1. Bacteria
2. Yeasts
3. Molds

Microorganisms are all around us, in the soil and air, on animals and humans and on equipment and preparation surfaces in poor hygiene.

- The problem is, these bacteria can't be seen without a microscope. However, a good thing about microorganisms are that they can be used in the food industry to produce products such as:

- Cheese
- Yoghurt
- Bread
- Quorn.



MACRONUTRIENT:

A food needed by the body in large amounts, e.g. Carbohydrates and Protein.

MICRONUTRIENTS

A food needed by the body in smaller amounts, e.g. Vitamins and minerals.

Micronutrients-
We need these in small amounts.

Vitamins

Fat Soluble (dissolve in fat) -A, D, E, K

Water Soluble (dissolve in water) -B Vitamins and Vitamin C

Minerals

Calcium, Iron, Sodium, Phosphorus, Potassium, Magnesium, Zinc.

Proteins : LBV



Plant proteins that contain some of the amino acids needed are called Low Biological value LBV – all plant sources. By eating a variety of LBV you can get all the amino acids needed.



Proteins : HBV



Proteins that contain all the amino acids needed by the body are called High Biological value HBV – all animal sources except soya



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Using a knife safely



Scan me!



Scan me!

Food labelling and health claims

Front-of-pack labelling

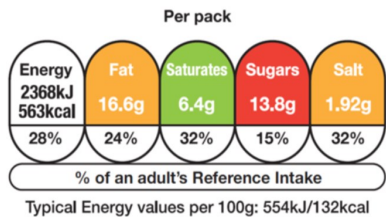
Front-of pack nutrition information is voluntary but if a food business chooses to provide this, only the following information may be provided:

- energy only;
- energy along with fat, saturates, sugar and salt.

Red, amber and green colours, if used, show at a glance whether a food is high, medium or low for fat, saturates, sugars or salt. The colour coding can be used to compare two products.

Nutrient	Low	Medium	High	
Fat	≤3.0g/100g	>3.0g to ≤17.5g/100g	>17.5g/100g	>21g/portion
Saturates	≤1.5g/100g	>1.5g to ≤5.0g/100g	>5.0g/100g	>6.0g/portion
(Total sugars)	≤5.0g/100g	>5.0g and ≤22.5g/100g	>22.5g/100g	>27g/portion
Salt	≤0.3g/100g	>0.3g to ≤1.5g/100g	>1.5g/100g	>1.8g/portion

Note: Portion size criteria apply to portion sizes/servings greater than 100g.



Heat exchange/transfer

Cooking requires heat energy to be transferred from the heat source, e.g. the cooker hob, to the food. This is called heat transfer or heat exchange. There are three ways that heat is transferred to the food.

They are:

- conduction – direct contact with food on a surface, e.g. stir-frying;
- convection - currents of hot air or hot liquid transfer the heat energy to the food, e.g. baking;
- radiation - energy in the form of rays, e.g. grilling.

Many methods of cooking use a combination of these. The amount of heat and cooking time will vary according to the type of food being cooked and the method being used.

Cooking methods

These are based on the cooking medium used:

- moist/water based methods of cooking, e.g. boiling, steaming, stewing, braising;
- dry methods of cooking, e.g. grilling, baking roasting, toasting, BBQ;
- fat-based methods of cooking – stir, shallow and deep fat frying.

Food labelling

Manufacturers include a range of information on food labels. Some of which is legally required and some of which is useful to the consumer or super-market.

Nutrition information helps consumers make healthier choices. Back-of-pack nutrition information is legally required on food packaging.

NUTRITION

When heated according to instructions

Typical values	Per 100g	Each pack (390g**)
Energy	457kJ 109kcal	1781kJ 424kcal
Fat	3.9g	15.2g
of which saturates	1.9g	7.5g
Carbohydrate	12.1g	47.1g
of which sugars	1.6g	6.2g
Fibre	1.1g	4.2g
Protein	5.8g	22.6g
Salt	0.6g	2.2g

Key terms

Conduction: The exchange of heat by direct contact with foods on a surface e.g. stir-frying or plate freezing.

Convection: The exchange of heat by the application of a gas or liquid current e.g. boiling potatoes or blast chilling.

Heat transfer: Transference of heat energy between objects.

Radiation: Radiation is energy in the form of rays, e.g. grilling.

Cooking for health

Take into account healthy eating recommendations to ensure that dishes/meals are part of a varied, balanced diet.

Planning - does the meal meet the nutritional needs and preferences of those it is being cooked for? Base your meals on starchy food.

Choosing - choose low fat/sugar/salt versions, where possible.

Preparing - limit the amount of fat added (try a spray oil) and replace salt with other flavourings, such as herbs and spices.

Cooking - use cooking practices which reduce the amount of fat needed and minimise vitamin losses from fruit and vegetables.

Serving - serve the meal in proportions which reflect current healthy eating advice.

Do not forget to include a drink.

Healthier cooking methods

- Grill or BBQ foods rather than fry to allow fat to drain away.
- Drain or skim fat from liquids, e.g. sauces, stews and casseroles.
- Dry fry using non-stick pans, so no need for oil.
- Oven bake rather than fry.
- Steam or microwave vegetables.