

Macronutrients- needed in larger amounts

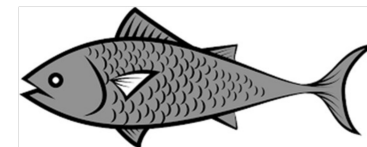
Nutrient	Function	Sources
Carbohydrate (Starch and sugars)	Energy	Bread, pasta, rice, cakes, biscuits
Protein	Growth, repair and maintenance	Meat, fish, dairy, eggs
Fat (Saturated and unsaturated)	Energy, warmth, protection of organs, a carrier for fat soluble vitamins—A, D, E and K	Sausages, bacon, lard, dairy products, nuts, seeds, avocados

Micronutrients- needed in smaller amounts

Nutrient	Function	Sources
Vitamins		
A	Immune system, helps us to see in dim light	Dairy, eggs, leafy vegetables, carrots
B	Energy release, healthy nervous system	Eggs, milk, fortified cereals
C	Fights infection, heals wounds, helps to absorb iron from foods	Citrus fruits, kiwi, strawberries, potatoes
D	Healthy bones and teeth, helps the body to absorb calcium	Oily fish, eggs, fortified margarine and cereals
Minerals		
Calcium	Strong bones and teeth, to help with normal growth in children	Dairy, green leafy vegetables, fish with edible bones
Iron	Helps to make haemoglobin in the red blood cells which carry oxygen around the body	Red meat, beans, nuts, green leafy vegetables, dried fruit
Sodium	Helps control the amount of water in the body	Processed food, salt, stock cubes

8 Guidelines for healthy eating

- Base your meals on higher fibre starchy carbohydrates.
- Eat lots of fruit and veg.
- Eat more fish, including a portion of oily fish.
- Cut down on saturated fat and sugar.
- Eat less salt: no more than 6g a day for adults.
- Get active and be a healthy weight.
- Do not get thirsty.
- Do not skip breakfast.



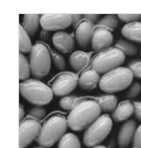
Fibre

Fibre is found in foods that come from plants. Fibre keeps our digestive system healthy by absorbing water and speeding up removal of waste. When you eat foods high in fibre, you feel fuller for longer. This reduces the temptation to snack and helps us to maintain a healthy weight.

Insoluble fibre- not easily broken down so passes through the body unchanged. Helps keep the bowels healthy and prevents constipation and piles.



Soluble fibre - is broken down and is easier to digest. Helps to reduce cholesterol levels and prevents coronary heart disease.



Year 10 Food Preparation & Nutrition: Fruits and vegetables

Knowledge Organiser

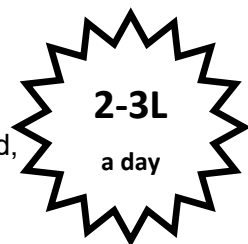
Hydration

Water is essential for life. It has many functions:

- Transports nutrients in the blood
- Aids digestion and prevents constipation
- Regulates body temperature through sweating
- Acts as a lubricant for the joints

Dehydration

A lack of fluid could lead to thirstiness, a dry mouth, feeling tired, losing concentration, dizziness and headaches.



Processed fruits and vegetables

Pre-prepared • Canned • Frozen • Dried • Juiced

Advantages of using these include:

- Convenience
- Available all year round
- Increased shelf life
- More affordable
- Frozen fruit and vegetables are
- More nutritious
- Access to a greater variety of foods that you wouldn't buy locally e.g. exotic fruit



Enzymic browning

This is a chemical process whereby when fruit and vegetables are cut open, some of the cells have access to oxygen which causes the flesh to discolour and turn brown.

Prevention

Acidity—adding vinegar, lemon or lime juice would denature the enzyme.

Heat—blanching, boiling or other cooking methods will destroy the enzyme.

Water—immersing the fruit or vegetable in plain water slows down enzymic browning.

Key vocabulary

Cross contamination	The transfer of bacteria from one food to another.
Gelatinisation	The thickening of a mixture in the presence of heat, due to swelling of starch granules
Preservation	Keeping something in its present state
Organic	Grown without use of chemicals.
Composite food	A food that includes more than one section of the Eatwell Guide e.g. lasagne.
Roux	A mixture of melted fat and flour, which is used to make a sauce.
Fortified	Adding nutrients to increase its nutritional value.
Sensory analysis	Judging food based on appearance, taste, texture and aroma.
Glaze	Beaten egg and/or milk, brushed onto pastry to make it shiny and golden brown.
Dry fry	Heating without fat or water.
Simmer	Cooking just below boiling point.
Reduce	Simmering a liquid until it thickens.
Stewing	Food submerged in liquid & cooked slowly
Rubbing in	A technique where fat is rubbed into flour using the finger tips.

Food miles

These are the distance food has travelled to get from where it was produced to where it is consumed.

Food miles have an impact on the environment as transport is needed to transport food (train, plane, boat, car etc.) and this creates pollution.

How can food miles be reduced?

- Buy locally produced foods
- Grown your own
- Eat seasonal foods
- Walk/cycle to the shop
- Shop less frequently
- Shop at farmers markets
- Pick your own

Ways to reduce food waste

- Reusing leftovers
- Freezer foods that are nearing their use by date
- Check cupboards before going shopping
- Write a shopping list
- Only cook one meal for the entire family
- Rotate stock
- Store foods correctly

Importance of fruit and vegetables

- Provide carbohydrates
- Contain a range of vitamins
- Contain a range of minerals
- Low in fat
- High in fibre
- High water content
- Low in calories
- Contain only natural sugars

Food hygiene and safety

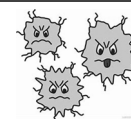
-18°C or below = freezer

0-5°C = fridge

5-63°C = danger zone—ideal temperatures for bacterial growth

63°C+ = hot hold

75°C+ = core temperature of cooked food



Red—raw meat
Blue—raw fish
Yellow—cooked meat
Green—salad and fruit
Brown—vegetables
White—bakery and dairy