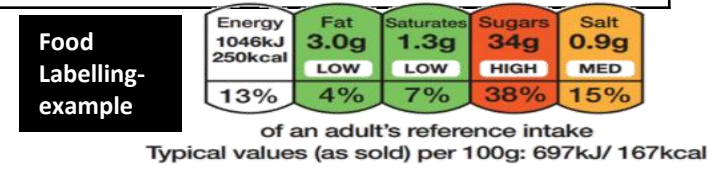


**KeyWords**
**Protein**
**Fat**
**Minerals**

1	Protein	Needed for growth and repair of body tissue and to maintain and build cells.	Also be used to provide the body with energy once it has been used for its primary function		1	It is important in our diets as it helps to protect the vital organs, protects the skeletal system, to keep us warm.	Calcium	For healthy bones and teeth. Also nerves, muscles and involved in blood clotting. Sources: milk, cheese, other dairy foods, green leafy vegetables, soya, bread.
2	Carbohydrates	It provides the body with instant and slow releases of energy. Also helps the digestive system.	Everyone needs protein in their diets but needs vary at certain times of our lives: Children, babies, pregnant women, nursing mothers				2	There are two types of fat. Animal which usually contain more saturated fats. Plant which usually contain more unsaturated fats.
3	Fat	Needed in small amounts to keep us warm protect our vital organs and our skeletal system. Acts as an energy reserve	High biological value proteins contain all the amino acids that our bodies cannot make.		3	Reducing fat helps to lower the risk of obesity, lower the risk of heart disease, lower cholesterol.		
4	Vitamins	Needed to stay healthy. They help to heal wounds, keep skin healthy and for growth in children.	Low biological value proteins are missing one or more of the essential amino acids.				3	Reducing fat helps to lower the risk of obesity, lower the risk of heart disease, lower cholesterol.
5	Minerals	Many different needs in the body. Includes formation of bones & teeth, helps the nervous system and the forming of red blood cells.	<b>Vitamins</b>					
6	Fibre and NSP (non-starch polysaccharides)	To rid the body of waste and prevent constipation	Vitamin A	Helps form and maintain healthy teeth, skeletal, soft tissue and skin. Helps eyesight & night vision. comes from animal sources, such as eggs, meat, milk, cheese, cream, liver, kidney, cod, and halibut fish oil.	<b>Carbohydrates</b>			
7	Water	To maintain body temperature, help digestion, lubricate joints and help remove waste from the body.	Vitamin B	Allows the body to use and store energy from protein and carbohydrates in food. Helps form haemoglobin, the substance that carries oxygen around the body. Found in a wide variety of foods including meat, poultry, bread, cereals, egg, vegetables and potatoes.	Carbohydrates can be divided into three main groups.			
8	Macronutrients	The three main big nutrients which give us energy. They are fat, carbohydrates and protein.	Vitamin C	Good for maintaining healthy skin and gums. Deficiency in vitamin C leads to a disease called scurvy. Vital in supporting immune function and protecting against illness. Found in many fruits and vegetables.	SUGAR: This gives food a sweet taste and provides the body with instant energy that does not last very long.			
	Micronutrients	The four small nutrients. They are vitamins and minerals.	Vitamin D	Helps the absorption of calcium. Mainly found in meats but is also created by the body naturally with exposure to sunlight. A lack of this can lead to Rickets.	STARCH: This gives us slow release energy over a long period of time.			
9	Basal Metabolic Rate	The rate at which a person uses energy to maintain the basic functions of the body when it is at complete rest, such as: breathing; keeping warm; keeping the heart beating.			DIETARY FIBRE: this is also known as 'roughage'. It helps our digestive system to work properly to avoid constipation and other more serious diseases.			

Key Words		Dietary Goals	Dietary Goals	
1	Dietary fibre	Unrefined and untreated plant food.	1	Four national goals set by the Government to help everybody achieve a healthy and balanced lifestyle.
2	Refining	Means that most of the outer, fibrous layers of wheat are removed and discarded during processing.		
3	Soluble fibre	Which is contained in oats, rice, barley and fruit.	2	Goal One: Eat less fat - To prevent obesity, to lower the risk of heart disease, to lower cholesterol.
4	Insoluble fibre	Wheat, pulses (beans, peas, lentils) and the skin of fruit and vegetables.	3	Goal Two: Eat less sugar - To prevent tooth decay & gum disease, to prevent obesity, to prevent the risk of developing type 2 diabetes.
5	Health Claim	Refers to a relationship between a food[or one of its components such as a vitamin, mineral] and health	4	Goal Three: Eat less salt - To help lower blood pressure, to help prevent heart disease.
6	Nutrition Claim	Suggests a food or drink has a particular nutritional benefit E.g. 'Source of Calcium'	5	Goal Four: Eat more fibre - To improve our digestive system, to lower the risk of bowel and intestinal diseases.

Fibre Facts -Dietary Goals	
1	Fibre makes up the cell walls of plant foods such as cereals, vegetables, beans and fruit
2	Wholemeal foods such as bread, pasta and rice has the whole grain of the wheat ground, including most of the bran layer, so it contains more fibre.
3	Fibre is not digested and absorbed by the body. It is very bulky and absorbent, like a sponge, and so holds a lot of water.
4	It prevents constipation and other bowel related disorders. Fibre also acts as a 'mop' in the bowel and removes any harmful and poisonous substances from it.



**Food Labelling-example**

Fairtrade	
1	About better prices, decent working conditions and fair terms of trade for farmers and workers.
2	About supporting the development of thriving farming and worker communities that have more control over their futures and protecting the environment in which they live and work.
3	Advantages include: more access to exotic fruit and vegetables/foods, wider range of vitamins & minerals in diet, new, exciting tastes, creates a lot of jobs, and cheaper products.
4	Disadvantages include: not eco-friendly, pollution and packaging, low wages, poor working conditions for fruit & vegetable pickers, damaged products through transport, not very fresh, perhaps 3 weeks old if not tinned, pureed or dried, can put British farmers out of work.

Food Labelling- traffic lights system		
What does green mean?	What does amber mean?	What does red mean?
If there is mostly green on the label, then this is telling you straight away it is low in that nutrient and a healthier choice!	This means the product is neither high nor low in the specific nutrient. You can eat foods with all or mostly amber on the label most of the time.	Red doesn't mean you cannot eat the product, but means the food is high in fat, saturated fat, salt or sugar. We should be cutting down on foods with lots of red on the label, or if they are eaten, to have less often and in small amounts.
So when choosing between similar products, try to opt for more greens and ambers, and fewer reds!		

Food Sustainability
<ul style="list-style-type: none"> <li>Reduce food waste.</li> <li>Reduce food miles and the carbon footprint caused by transport</li> <li>Reduce unnecessary food packaging</li> <li>Improve the lives of people producing foods</li> </ul>

Food Miles
<ul style="list-style-type: none"> <li>ONLY BUY WHAT YOU NEED</li> <li>COMPOST food waste and recycle packaging.</li> <li>BUY and EAT foods that are in season</li> <li>BUY LOCAL</li> <li>GROW YOUR OWN</li> <li>WALK to the local shop or get the bus.</li> </ul>

**Food Miles-Pollution**- any transportation of food uses fuel. Burning fossil fuels creates *pollution* –*Greenhouse gases* [Carbon Dioxide, Carbon Monoxide, Hydrocarbons, Sulphur oxides and Nitrogen oxides]. These cause the planet to heat up and also make the air more difficult for us to breathe. They also create '*Acid rain*' and *smog*.

**Food Miles-Extraction of fossil fuels** from the ground takes a lot of *energy*. It also can *destroy natural habitats*. This means trees are cut down and there is nowhere for local people and animals to live. Also, plant life is destroyed. This is how *plants and animals can become endangered or extinct*. Cutting trees down can also cause *flooding and loss of nutrients in the soil*.

**Keywords**

1	Primary processing	<u>Primary processing is the conversion of raw materials into food commodities, e.g. wheat into flour</u>
2	Secondary processing	<u>Secondary food processing is the process of using ingredients produced through primary food processing to create ready-to-eat foods</u>
3	GM Foods	Genetically modified foods (GM foods), also known as genetically engineered foods (GE foods), or bioengineered foods are foods produced from <u>organisms</u> that have had changes introduced into their <u>DNA</u> using various methods of <u>genetic engineering</u> .
4	Seasonality	Eating and using foods according the current season.
5	Hydroponics	a production method where the plants are grown in a nutrient solution rather than in soil.

**Seasonality**

1	Helps to reduce the energy (and associated CO2 emissions) needed to grow and transport the food we eat to avoid paying a premium for food that is scarcer or has travelled a longer way [Food Miles].
2	Helps to support the local economy.
3	Allows us to reconnect with nature's cycles and the passing of time.
4	Seasonal food is fresher and so tends to be tastier and more nutritious.

**Vertical Farming**

1	Hydroponics and Aeroponics are used to grow salad crops in large trays or vertical columns in factories or underground in urban areas. The use of water is minimal and they can produce between 50-100% more crops than a traditional field without pollution water and soil with nutrients and fertilisers.
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**GM FOODS**

Genetically modified (GM) foods are foods derived from genetically modified organisms. Genetically modified organisms have had specific changes introduced into their DNA by genetic engineering techniques.

**Solving global hunger.** Crops can be genetically modified to grow in areas where they can't normally grow, for example in areas of drought.

**Environmental safety.** Some plants could become so well modified that they could grow in any conditions and could become weeds.

**FOOD PROCESSING**

making food safe to eat by killing harmful bacteria  
 making food look and taste its best by adding colour after processing  
 making foods become available that are out of season, like frozen raspberries and strawberries  
 making foods easier to prepare, this is important for people who live busy lifestyles  
 making foods have a longer shelf life by adding preservatives

**PRIMARY PROCESSING** – first stage of processing can be washing and packing foods or changing raw foods like wheat into flour

**SECONDARY PROCESSING** – to change a food item which has been processed once into something else like ready meals or changing flour into bread.