Food Preparation and Nutrition Knowledge Organiser Year 8

Food Labelling

- Food labels provide information, which helps people to know when to eat food, and how to store it safely.
- Nutrition and allergy information on food labels help to make informed food and drink choices.

Information on the labels of pre-packed food and drink products can be legally required or just for consumer information.

Legally required information:

- country of origin and place of provenance;
- date mark;
- list of ingredients (including additives and allergens);
- name and address of the manufacturer, packer or seller;
- name of food or drink;
- nutrition information;
- storage and preparation instructions;
- weight or volume.

Consumer information:

- front-of-pack nutrition label;
- price;
- serving suggestions/image.

Nutrition information

Nutrition information can help consumers make healthier choices. **Back-of-pack** nutrition information is legally required.

NUTRITION
When heated according to instructions

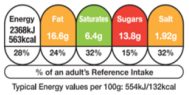
Typical values	Per 100g	Each pack (390g**)
Energy	457kJ 109kcal	1781kJ 424kcal
Fat	3.9g	15.2g
of which saturates	1.9g	7.5g
Carbohydrate	12.1g	47.1g
of which sugars	1.6g	6.2g
Fibre	1.1g	4.2g
Protein	5.8g	22.6g
Salt	0.6g	2.2g

Front-of-pack labelling

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

- energy only;
- energy along with fat, saturates, sugars 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.



Ingredients

It is a legal requirement to include an ingredients list on packaged or pre-prepared foods. The ingredients must appear in descending order and with the allergens identified in **bold**, highlighted, underlined or in *italics*.

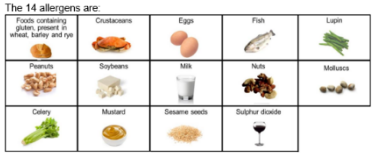
INGREDIENTS
Water, Carrots, Onions, Red Lentils (4.5%), Potatoes, Cauliflower, Leeks, Peas, Cornflour, **Wheat** flour, Cream (**milk**), Yeast Extract, Concentrated Tomato Paste, Garlic, Sugar, **Celery** Seed, Sunflower Oil, Herb and Spice, White Pepper, Parsley
ALLERGY ADVICE
For allergens, see ingredients in **bold**

Allergen labelling

There are 14 ingredients (allergens) that are the main reason for adverse reactions to food. They must be labelled on pre-packaged food and menus so that consumers can make safe choices.

From summer 2021 new legislation will tighten the rules requiring food that is prepared for direct sale, e.g. in a coffee shop, to carry a full list of ingredients.

The 14 allergens are:



Date marks/shelf life

'Use by' dates relate to the safety of the food and**' best before'** dates relate to quality. Eating foods after their '**use by'** date could lead to food poisoning.

USE BY:	BEST BEFORE:
25/08/20 KEEP REFRIGERATED	25/08/21 STORE IN A COOL DRY PLACE

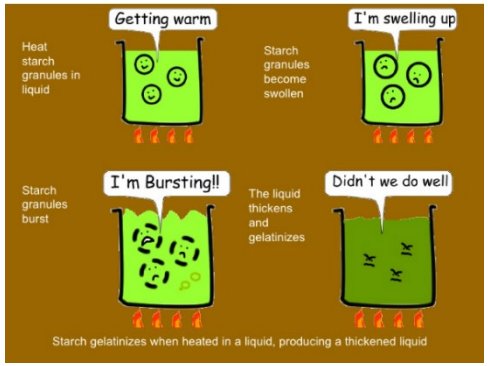
Baby leaf salad
Keep refrigerated. Once opened consume within 24 hours and by the 'use by' date shown.

Gelatinisation

Starch Gelatinisation Thickens Liquids

1) Gelatinisation helps to thicken foods that contain starch, e.g. sauces, custards and gravies.
2) When starch granules are first mixed with liquid, they become suspended in it — if you don't stir the liquid these granules will sink to the bottom.
3) When the granules are heated with water, the bonds between starch molecules start to break, allowing water molecules to enter. As water is absorbed, the starch granules swell in size and soften.
4) Between 62 °C and 80 °C, the starch granules burst open and release their starch into the liquid.
5) This release of starch causes the liquid to thicken. How thick the liquid becomes depends on the ratio of starch to liquid in the mixture — the higher the concentration of starch, the thicker the liquid.
6) When it cools, the liquid solidifies and a solid gel is formed — this is useful for making 'set' desserts like custards and lemon pie filling.
7) Gelatinisation also happens when you cook starchy foods like pasta and rice — they swell, soften and release starch into the water as they cook.

Custards can also be set using gelatine or by the process of protein coagulation (see previous page).



FOOD SCIENCE

Budgeting

Cooking on a budget: Healthy, affordable dishes

Food shopping is a major household cost, and inflation is adding pressure to already stretched budgets. There are ways in which costs can be reduced, the following tips and ideas explain how.

Smart shopping

Avoid pre-sliced or chopped ingredients – they are not good value for money. The packaging usually means you will get much less than if you bought it whole and they often cost more. Did you know…hard to chop ingredients like butternut squash can be softened slightly by giving them 1 minute in the microwave?

Grocery prices can vary from week to week so stocking up on store cupboard items (bought regularly) when discounted, saves money.

When planning meals for the week, think about what food is in season. Produce that is in season should have travelled fewer food miles and it will generally be cheaper. Print out a list of what is in season and when, to help.

Supermarkets have several different ranges of own-label products, from basic and value brands to premium. Often 'own brands' are very similar to branded items and are much cheaper.

Plan meals for the week and make list and stick to it! Be economical with ingredients, for example if half a can of tomatoes is needed for one recipe, plan another recipe to use up the other half. When shopping, try not to deviate from the list and never go shopping when you are hungry.

Market traders often have lower overheads and pay less for their fresh produce, meaning they can sell them on at a much cheaper price. Freeze any surplus ingredients for future use.

Look out for 'wonky fruit and veg'! Many supermarkets would have previously thrown out their imperfectly shaped fruit and vegetables but now sell them on to customers more cheaply, helping to reduce waste.

Know the difference between use-by and best-before dates! Use-by – you have got until the end of this date to use or freeze the food before it becomes too risky to eat. Best-before – you can eat food past this date, but it might not be at its best quality.

Fermentation

Yeast needs:

- moisture
- warmth
- food
- time

With warm liquid (most often water) and 'food', the yeast will start to multiply (grow) and produce gas (carbon dioxide).

Biological

- Yeast is a biological raising agent used in bread dough.
- It's a microorganism (see p.35) that causes fermentation — a process that releases alcohol and carbon dioxide.
- Doughs containing yeast are often proved (left in a warm place to allow fermentation to take place).
- This stage is important because it's when the carbon dioxide is released and trapped in the dough, causing it to rise — fermentation stops during baking as the yeast is killed by the heat.
- When the dough is baked, the carbon dioxide expands, causing the bread to rise even more — any alcohol produced by the yeast evaporates at this stage.