# Cooking

- A broad range of ingredients, equipment, food skills and techniques, and cooking methods are used to achieve successful results.
- Recipes and cooking methods can be modified to help meet current healthy eating messages.

### Why is food cooked?

Some foods can be eaten raw and form an important part of the diet. However, many foods need to be prepared and cooked before they are eaten to:

- make the food safe to eat by destroying pathogenic microorganisms and toxins;
- destroy microorganisms and enzymes that cause food to deteriorate and therefore increase the keeping quality of the food;
- make the food more digestible and easier to absorb.

### Food skills

There are a number of food skills which enable a variety of increasingly complex dishes to be prepared and made.

These can include:

- beating, combining, creaming, mixing, stirring and whisking;
- blitzing, pureeing and blending.
- kneading, folding, forming and shaping;
- knife skills;
- rubbing-in and rolling-out;
- use of the cooker: boiling/simmering/poaching, frying, grilling, roasting and baking.

### Safety

- Sharp knives: never walk around with a knife. Use the *bridge hold* and *claw grip* to cut safely.
- Grater: hold grater firmly on a chopping board. Grate food in one direction and leave a small amount at the end to prevent injury to knuckles.
- Hot liquid: drain hot liquid carefully over the sink using a colander.
- Saucepans: turn panhandles in from the edge, so they are not knocked.
- Hot equipment: always use oven gloves when placing food in and out of the oven.
- Spills: wipe up immediately.
- Electrical equipment: always follow instructions.

To find out more, go to: <u>https://bit.ly/322eSpr</u>

# Food skills are acquired, developed and secured over time.

### Bridge hold



### Claw grip



Food skill		Food skill		Food skill	
Bake	Ē	Fry and sauté	~	Portion / divide	G
Beat	P	Glaze and coat		Prove	V
Blitz, puree and blend	Î	Grate		Roast	<b>_</b>
Casserole	Ť	Grill		Roll-out	$\mathbf{\tilde{\mathbf{A}}}$
Chill	鱳	Juice		Rub-in	
Core		Knead	Se-	Sift	-
Cream	١	Layer	-	Snip	X
Crush	4	Mash	4	Spread	R
Cut out	ά° О	Measure	Ð	Stir-try	$\checkmark$
Cut, chop, slice, dice and trim	ß	Melt, simmer and boil	<b>*</b> -	Weigh	
Decorate and garnish		Microwave		Whisk	P
Drain	<b>.</b>	Mix, stir and combine	<	Zest	
Fold	2	Peel	Ŷ		
Form and shape	8	Pipe	۲		

### Heat exchange/transfer

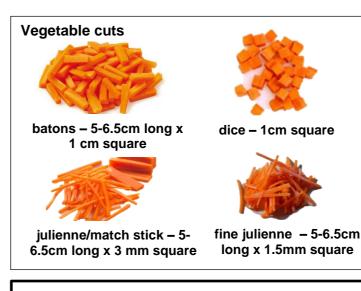
Cooking requires heat energy to be transferred from the heat source, e.g. the cooker hob, to the food. This is called heat transfer or heat exchange. There are three ways that heat is transferred to the food. They are:

- 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.



### Task

Complete the *Food route Cooking journal*: <u>https://bit.ly/3dYUibH</u>

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a fact	of life

### 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 vedetables.

### Date:

## **Food choice**

### Food choice

Food choices for a balanced diet depend on many factors, such as:

- advertising and other point of sale information;
- cost and economic considerations; •
- cultural or religious practices;
- environmental and ethical considerations;
- food availability; •
- food preferences; •
- food provenance;
- health concerns;
- individual energy and nutrient needs; •
- portion size; ٠
- social considerations. ٠

### **Consumer information**

Information can help consumers make informed choices, including:

- advertising and marketing;
- media, online blogs/forums; •
- packaging, nutrition and health claims;
- point of purchase information and product placement;
- recipe ideas. •

### Cost and economic considerations

The cost of food and money available will influence people's food choices. If money is limited, people may choose to buy more basic items. Luxury items might then be selected for special occasions.

### Food prices

Food prices can and do change throughout the year and over time. This may be due to a variety of reasons, including:

- climate and weather patterns;
- crop failure;
- crop disease; •
- seasonality: •
- consumer demand;
- agricultural costs increase; •
- fuel prices go up; •
- increased use of bio fuels.

### Budgeting

There are many things that we can do to spend money wisely on food. Examples can include:

- eating the seasons:
- stocking up on food with a long shelf-life; •
- taking time to plan meals and write a shopping list; ٠
- cooking using one pot;
- making fake-aways rather than buying takeaways;
- using leftovers;
- replacing branded items with cheaper items; •
- comparing prices and shop around to find the cheapest • items:

### Cultural or religious practices

People around the world choose to eat or avoid certain food due to their cultural or religious practices.

Religion	Pork	Beef	Lamb	Chicken	Fish
Islam	х	Halal	Halal	Halal	✓
		only	only	only	
Hinduism	х	х	√	√	✓
Judaism	Х	Kosher	Kosher	Kosher	✓
		only	only	only	
Sikhism	х	х	√	√	✓
Buddism	х	Х	Х	Х	х
(strict)					
Seventh-	Х	x	x	√	√
day					
Adventist					
Church					
Rastafari	х	Х	Х	Х	х
movement					

### **Environmental and ethical considerations**

Some considerations when buying food might be:

- fair trade;
- local food; ٠
- genetically modified (GM) food;
- organic food;
- free range.

### Food availability

Buying food when it is in season will often mean that the price is lower. Technology and the importation of food has allowed food to be available all year round.

To find out more, go to: https://bit.ly/3dpC9Fj

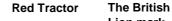
### Personal preferences

A number of factors can influence personal preferences, including:

- colour, size and shape of crockery and cutlery • used;
- portion size; ٠
- serving style;
- taste, aroma, texture, appearance, shape and colour of food.

### Food provenance

Food provenance is about where food is grown, caug or reared, and how it was produced. Food certification and assurance schemes guarantee defined standards of food safety or animal welfare. There are many in th UK, including:



Marine Stewardship Council





### Health concerns

People may choose their food based on their own or their family's health and wellbeing:

- allergy and intolerance, e.g. lactose intolerance, coeliac disease, wheat allergy, diary allergy;
- body image;
- health issues, e.g. coronary heart disease, type 2 • diabetes, inflammatory bowel disease, over or under malnutrition;
- mental health.

### Individual energy and nutrient needs

The amount of energy and nutrients needed differs between different age groups and between males and females.

Energy needs also depend on activity levels. For example, athletes will have much higher energy requirements due to their high level of physical activity

### Tasks

- affect your food choice. Explain how different this might be to your grandparents at your age.
- 2. Explain why food provenance is important to some consumers. Include examples of UK food certification and assurance schemes.

- growing your own food.



	Key terms Advertising: Advertising is a form of communication for marketing and used to encourage, persuade, or manipulate an audience to continue or take some new action.
	<b>Ethical:</b> Relating to personal beliefs about what is morally right and wrong.
ht n s ie	<ul> <li>Food certification and assurance schemes: Defined standards of food safety, quality or animal welfare.</li> <li>Food provenance: Knowing where food was grown, caught or reared and how it was produced.</li> <li>Marketing: Promoting and selling products or services, including market research and advertising.</li> <li>Religion: A particular system of faith and worship.</li> <li>Seasonal food: Food grown at a particular time of year.</li> </ul>
	Portion size Having a healthy, balanced diet is about getting the right types of foods and drinks in the right amounts.
	Social considerations
	<ul> <li>Body image and peer pressure.</li> </ul>
d y.	<ul> <li>Body image and peer pressure.</li> <li>Development of ready meals and a wider range of convenience foods.</li> <li>Development of labour saving devices.</li> <li>Lack of competence and confidence in the kitchen.</li> <li>Lack of time.</li> <li>Living arrangement (e.g. living alone).</li> </ul>

1. Consider your own household and create a mind map of the social and economic considerations that

### Name: **Food science**

#### **Functions of ingredients** Ingredients provide a variety of functions in recipes.

### Carbohydrate, protein and fat Carbohydrate, protein and fat all have a range of properties that make them useful in a variety of food products.

### Carbohydrates perform different functions in food.

They can:

- help to cause the colour change of bread, toast and bakery products (dextrinisation);
- contribute to the chewiness. colour and sweet flavour of caramel:
- thicken products such as sauces • and custards (gelatinisation).

### Maillard reaction

Foods which are baked, grilled or roasted undergo colour, odour and flavour changes. This is primarily due to a group of reactions involving amino acids (from protein) and reducing sugars.

### Dextrinisation

When foods containing starch are heated they can also produce brown compounds due to dextrinisation. Dextrinisation occurs when the heat breaks the large starch polysaccharides into smaller molecules known as dextrins which produce a brown colour.

### Caramelisation

When sucrose (table sugar) is heated above its melting point it undergoes physical and chemical changes to produce caramel.

### Gelatinisation

When starch is mixed with water and heated, the starch granules swell and eventually rupture, absorbing liquid, which thickens the mixture. On cooling, if enough starch is used, a gel forms.

### Proteins perform different functions in food products. They:

- aerate foods, e.g. whisking egg whites;
- thicken sauces, e.g. egg custard;
- bind ingredients together, e.g. fishcakes:
- form structures, e.g. gluten formation in bread;
- gel, e.g. lime jelly.

### **Gluten formation**

Two proteins, gliadin and glutenin, found in wheat flour, form gluten when mixed with water. Gluten is strong, elastic and forms a 3D network in dough. In the production of bread, kneading helps untangle the gluten strands and align them. Gluten helps give structure to the bread and keeps in the gases that expand during cooking.

### Gelation

Gelatine is a protein which is extracted from collagen, present in animal connective tissue. When it is mixed with warm water, the gelatine protein molecules start to unwind. On cooling, a stable, solid network is formed, trapping the liquid.

### Denaturation

Denaturation is the change in structure of protein molecules. The process results in the unfolding of the protein's structure. Factors which contribute to denaturation are heat, salts, pH and mechanical action.

### Coagulation

Coagulation follows denaturation. For example, when egg white is cooked it changes colour and becomes firmer (sets). The heat causes egg proteins to unfold from their coiled state and form a solid, stable network.

### Aeration

Products such as creamed cakes need air incorporated into the mixture in order to give a well-risen texture. This is achieved by creaming a fat, such as butter or baking spread, with sugar. Small bubbles of air are incorporated and form a stable foam.

### Fats performs different functions in food. They help to:

- add 'shortness' or 'flakiness' to foods, e.g. shortbread, pastry;
- provide a range of textures and cooking mediums;
- glaze foods, e.g. butter on • carrots;
- aerate mixtures, e.g. a • creamed cake mix;
- add a range of flavours.

### Plasticity

Fats do not melt at fixed temperatures, but over a range. This property is called plasticity.

### **Colloidal systems**

Colloidal systems give structure, texture and mouthfeel to many
different products.

Disperse	Continuous	Food
		Unset jelly
	Solid	Jelly
Liquid	Liquid	Mayonnaise
Liquid	Solid	Butter
Gas	Liquid	Whipped cream
Gas	Solid	Meringue
	phase Solid Liquid Liquid Liquid Gas	phasephaseSolidLiquidLiquidSolidLiquidLiquidLiquidSolidGasLiquid

### To find out more go to: <a href="https://bit.ly/2SPqWEG">https://bit.ly/2SPqWEG</a>

### Raising agents

Raising agents include anything that causes rising within foods, and are usually used in baked goods. Raising agents can be:

- biological, e.g. yeast;
- chemical, e.g. baking powder:
- mechanical, e.g. adding air through beating or folding.

### **Functional ingredients**

- These are ingredients that are specifically included in food for additional health benefits. They include:
- probiotics 'good' • bacteria that may have a positive impact on human health;
- prebiotics food ingredients that promote the growth of beneficial microorganisms in the qut:
- sterols/stanols -• compounds that can lower cholesterol; healthy fats (e.g.

omega-3);

### There are three ways that heat is transferred to food.

- added vitamins and minerals (more than in the original food).
- surface. rays.
- the food.

### Tasks

recipes.

the food.

cooked?

meals.

They are:



### Why is food prepared and

Food is prepared and cooked to: • make the food more palatable improves flavour, texture and appearance;

reduce the bulk of the food; provide variety and interest to

### Methods of cooking food

The methods of cooking are divided up into groups. These are based on the cooking medium used.

 moist/liquid methods, e.g. boiling; dry methods, e.g. grilling; • fat-based, e.g. frying.

Selecting the most appropriate way of preparing and cooking certain foods is important to maintain or enhance their nutritional value. • Vitamins can be lost due to oxidation during preparation or leaching into the cooking liquid. • Fat-based methods of cooking increase the energy (calories) of

• The use of different cooking methods affects the sensory qualities of the food.

### Key terms

Conduction: The exchange of heat by direct contact with foods on a surface.

Convection: Currents of hot air or hot liquid transfer the heat energy to the food.

Functional ingredients: Included in food for additional health benefits. Heat transfer:

Transference of heat energy between objects. Radiation: Energy in the form of rays.

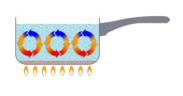
### Tenderisation

- Mechanical tenderisation - a meat cleaver or meat hammer may be used to beat the meat. Cutting into small cubes or mincing can also help.
- Chemical tenderisation (marinating) -- the addition of any liquid to flavour or soften meat before cooking.

 Conduction – the exchange of heat by direct contact with foods on a

Radiation – energy in the form of

Convection – currents of hot air or hot liquid transfer the heat energy to



1. Choose a recipe that you enjoy or have made recently and explain in detail the functions of the ingredients. 2. Explain the function of raising agents, giving examples of

# **Planning what to cook**

• Current healthy eating advice, dietary needs, socio-economic factors, preferences, occasion and cost need to be considered when planning to cook.

### Planning what to cook

Deciding on what to cook or eat, whether for yourself or someone else, requires making a number of decisions:

- beliefs and values;
- consumer information;
- food preferences;

Beliefs and values

seasonal food:

religion.

Religion

Hinduism

Judaism

Sikhism

Buddism

Seventh-

Adventist

Rastafari

movement

Church

(strict)

day

Islam

•

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- food provenance;
- health and wellbeing;
- social and economic considerations;

Personal beliefs and values include:

lifestyle choices, e.g. vegetarian, vegan;

Beef

Halal only

х

Kosher only

Х

х

Х

х

culture, tradition and heritage:

Pork

х

Х

х

х

Х

х

х

• who, what, when and where.



Fish

 $\checkmark$ 

 $\checkmark$ 

7

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 $\checkmark$ 

х

### **Consumer information**

Information can help consumers make informed choices, including

- advertising and marketing;
- media;
- online blogs/forums;
- packaging, nutrition and health claims;
- point of purchase information;
- product placement;
- recipe ideas.

### Food provenance

Food provenance is about where food is grown, caught or reared, and how it was produced. Food certification and assurance schemes guarantee defined standards of food safety or animal welfare. There are many in the UK, including:



### RSPCA Assured



Marine Stewardship Council

### Health and wellbeing

People may choose their food based on their own or their family's health and wellbeing:

- age and gender;
- allergy and intolerance;
- body image;
- health status;

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- mental health;
- physical activity.

### Who, what, when and where

The time of day, location and who is eating can impact food choice:

- eating alone, with family or friends;
- celebration;
- day of the week,
- location, e.g. at home, school or work, at a restaurant, on the go;
- meal or snack;
- occasion and time of day.

### Personal preferences

A number of factors can influence personal preferences, including:

- colour, size and shape of crockery and cutlery used;
- portion size;
- serving style;
- taste, aroma, texture, appearance, shape and colour of food.

### Social and economic considerations

The cost of food, money available and social aspects will influence people's food choices:

- cost of food;
- greater food availability;
- income;
- labour saving equipment;
- lack of cooking skills;
- long hours at work;
- wider range of convenience foods.

### Allergy and intolerance

There are 14 ingredients (allergens) that are the main reasons for adverse reactions to food. People who are allergic, or intolerant, to these ingredients should take care to avoid eating them. The 14 allergens are:

Celery (and celeriac)	Milk
Cereals containing	Molluscs
gluten	Mustard
Crustaceans	Nuts
Eggs	Peanuts
Fish	Sesame
Lupin	Soybeans
	Sulphur diox

Eating the seasons

Most foods are grown in a particular season of the year, e.g. strawberries are harvested in summer in the UK. These are called 'seasonal foods'. Buying foods when they are in season will often mean that the price is lower. Technology and the importation of food has allowed food to be available all year

food ethics, e.g. environment, fair trading, organic, free-range, local and

Lamb

Halal only

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Kosher only

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Chicken

Halal only

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Kosher only

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round. Frozen foods, such as vegetables, are a great alternative to fresh, if they are unavailable.

# Red Tractor RSPC



**British Lion** 







### Name:

# **Sensory science**

### Using our senses

A range of senses are used when eating food:

- sight;
- smell; •
- hearing;

taste;



• touch.

•

A combination of these senses helps to evaluate a food.

Appearance The size, shape, colour, temperature and surface texture all play an important part in helping to determine first reactions to a food.	Taste There are five basic tastes: • bitter; • salt; • sour; • sweet; • umami.
Smell (odour or aroma)	<b>Touch</b>
The nose detects volatile	Food texture is the way
aromas released from	food is felt by the
food. An odour may be	fingertips, tongue, teeth
described by association	and palate. When food is
with a particular food,	placed in the mouth, the
e.g. herby, cheesy, fishy.	surface of the tongue
The intensity can also be	and other sensitive skin
recorded. Odour and	reacts to its surface

### **Taste receptors**

texture. This sensation is

known as mouthfeel.

The sounds of food being prepared, cooked, served and eaten all help to influence our preferences. The sound of eating food can alter our perception of how fresh a food is, e.g. crunchy carrots.

taste work together to

produce flavour.

Hearing (sound)

### Our tongues are covered with taste buds, which are designed to sense chemicals in the mouth. Most taste buds are located in the top outer edges of the tongue, but there are also receptors at the back of the tongue as well as on the walls of the mouth and at the back of the throat. As we chew food, molecules mix with saliva, enter taste pores

and interact with gustatory hairs,

triggers nerve impulses that are

transmitted to the brain.

also known as taste receptors. This

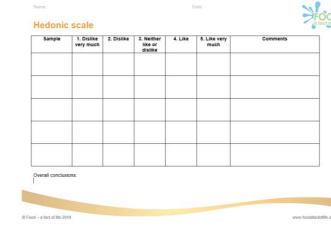
	Tasting voca	bulary (co	neory
	attributes)	bulai y (Se	11301 y
	Bubbling	Flaky	Opaque
	Caramelised	Firm	Smooth
	Clear	Heavy	Solid
۲ ا	Coarse	lcy	Steaming
Sight	Crumbly	Juicy	Sticky
S	Dry	Moist	Thick
	Acidic	Fresh	Spicy
	Aromatic	Meaty	Strong
	Bland	Mild	Sweet
e	Citrus	Pungent	Tart
Smell	Earthy	Savoury	Weak
0)	Fragrant	Smoky	Zesty
-	Brittle	Crisp	Рор
U U	Crackle	Crunch	Sizzle
Sound			
	Bitter	Rich	Strong
	Bland	Salty	Sweet
	Floury	Savoury	Tangy
	Hot	Smoky	Tart
Taste	Mild	Sour	Umami
Та	Piquant	Spicy	Zesty
	Brittle	Dry	Short
	Bubbly	Gooey	Soft
	Chewy	Granular	Solid
ج ج	Close	Greasy	Tacky
ouch	Cloying	Moist	Tender
Ĕ	Coarse	Open	Waxy

### Sensory evaluation and tests

Sensory evaluation analyses and measures human responses to food and drink, e.g. appearance, touch, odour, texture, temperature and taste. In order to obtain reliable results, sensory evaluation tests should be set up in a controlled way to ensure fair testing, e.g. no distracting colours, noise or smells; same size portions; coded samples, and water to drink.

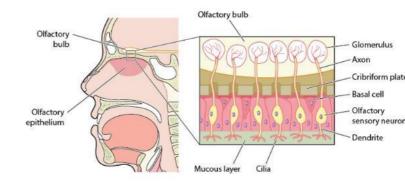
Preference tests - these types of tests supply information about people's likes and dislikes of a product. They are not intended to evaluate specific characteristics, such as crunchiness or smoothness. They are subjective tests and include hedonic, paired comparison and scoring.

**Discrimination tests** - these types of tests aim to evaluate specific attributes, i.e. characteristics of products (crunchiness). They are objective tests and include triangle, duo trio, ranking and paired comparison.



### Olfactory system

This is the sensory system used for olfaction, or the sense of smell. As we breathe in, the olfactory receptor cells are stimulated by odours and the olfactory membrane sends neural messages up the olfactory nerve to the brain.





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### Key terms

Fair testing: Ensuring that sensory tests obtain reliable results. Food texture: The way food is felt by the fingertips, tongue, teeth and palate. Olfactory system: The sensory system used for olfaction, or the sense of smell. Senses: Sight, smell, hearing, taste and touch are all used when eating food and drink. Sensory attributes: Words used to describe the appearance, odour, taste and texture of a food product Sensory evaluation: Analyses and measures human responses to food and drink.

### Intensity

Foods may be described by association, e.g. meaty, minty or fruity.

The intensity (low, medium or high) can also be recorded, e.g. garlicky or salty.

### Tasks

- 1. Write a guide to conducting sensory evaluation tests that are fair and reliable.
- 2. Research umami and make a dish that is rich in the taste of umami.

To find out more, go to: https://bit.ly/2Bzsgq5

# **Food labelling and health claims**

### 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 supermarket.

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	1781kJ
	109kca	424kca
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

### Legally required information

- Name of food or drink.
- List of ingredients (including water and food additives), in descending order of weight.
- Weight or volume.
- Date mark (Best-before and use-by).
- Storage and preparation conditions.
- Name and address of the manufacturer, packer or seller.
- Country of origin and place of provenance.
- Nutrition information.

Additional information may also be provided, such as cooking instructions, serving suggestions or price.

### Front-of-pack labelling

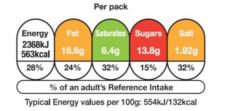
Front-of pack-nutrition information is voluntary but if a food business chooses to provide this, only the following information may be provided:

- 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	>21g/portion
		17.5g/100g		
Saturates	≤1.5g/100g	>1.5g to	>5.0g/100g	>6.0g/portion
		≤5.0g/100g		
(Total	≤5.0g/100g	>5.0g and ≤22.5g/	>22.5g/100g	>27g/portion
sugars)		100g		
Salt	≤0.3g/100g	>0.3g to	>1.5g/100g	>1.8g/portion
		≤1.5g/100g		

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



To find out more, go to: https://bit.ly/2SPnj1g

### Date marks

Best-before-date: The date after which foods may not be at their best, although probably safe to eat if stored according to instructions.

**Use-by-date:** The date given to foods that spoil quickly, such as cooked meats. It is unsafe to eat foods beyond their use-by-date.



**Beetroot salad** Keep refrigerated. Once opened consume within 24 hours and by the 'use-by' date shown.

### Allergen labelling

An allergic reaction to a food can be described as an inappropriate reaction by the body's immune system to the ingestion of a food. By law, food, drink and ingredients that are known to contain allergens are required to be in **bold**, highlighted, underlined or in italics.

The most common allergens are present in:

Celery (and celeriac) Cereals containing gluten Crustaceans Eggs	Milk Molluscs Mustard Nuts Peanuts
Eggs	Sesame
Fish Lupin	Soybeans
Lupin	Sulphur dioxide

### 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** 

### Additives

Food additives must be shown clearly in the list of ingredients on food labels, either by the additive's name or E number.

Additives are added to ensure safety, increase shelf life or improve the taste, texture or appearance of food. Additives need to be approved before they can be used. Additives are given an 'E number' to show that they have been rigorously tested for safety and have been approved for use in food by the European Commission.

An example is E100 or curcumin, made from turmeric.

Another example is caramel (E150), a synthetic colouring commonly used to colour colas.



### Nutrition and health claims

Nutrition and health claims are controlled by European regulations. Claims on a food or drink should have been authorised and listed on the European register of claims and have met certain conditions.

### Nutrition claims

A nutrition claim describes what a food contains (or does not contain) or contains in reduced or increased amounts. Examples include: • Low fat (less than 3g of fat per 100g of food);

- High fibre (at least 6g of fibre per 100g of food);
- 100g of food).

### **Health claims**

A health claim states or suggests there is a relationship between a product and health. In order to make a claim, the amount present of the nutrient, substance or food must fulfil the specific conditions of use of the claim. The types of health claims are:

- 'Function Health Claims':
- 'Risk Reduction Claims';
- Health 'Claims referring to children's development'.

### Tasks

- consequences of not following them.

Nutrition information: Helps consumers make healthier choices.

Source of vitamin C (at least 15% of the nutrient reference value for vitamin C per

1. Find four different packaged food items in your household or online and list the information provided on the packaging. Explain the purpose of each piece of information and identify if it is legally required or consumer information. 2. Explain the importance of date marks and storage instructions, including the