

Hospitality and Catering Knowledge Organiser

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1.1.1 Hospitality and catering providers

Keywords

Commercial: business that operates to earn money

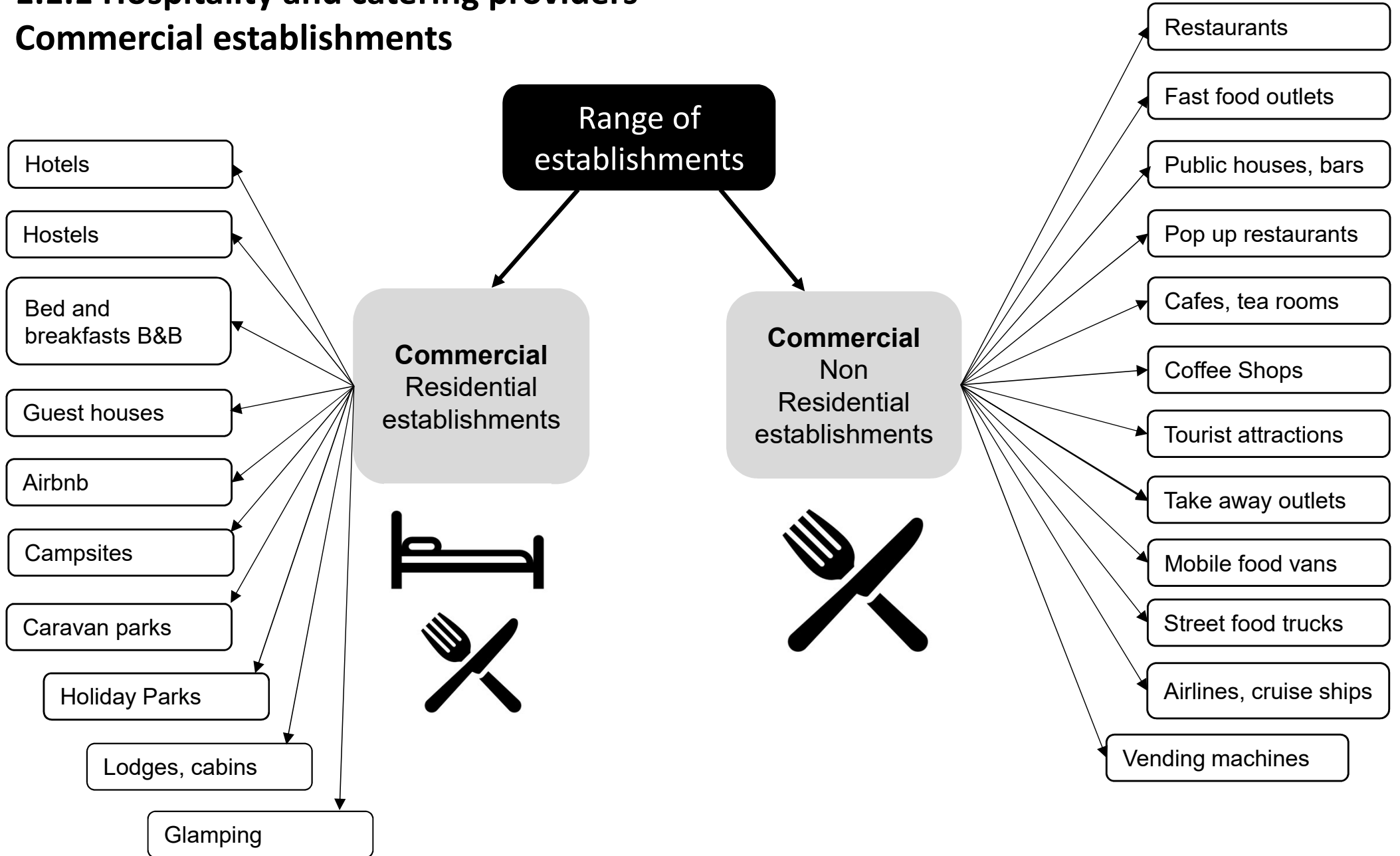
Non-commercial: non-profit organisations or government run provisions

Residential: where accommodation is offered

Non-residential: where only food and drink is offered

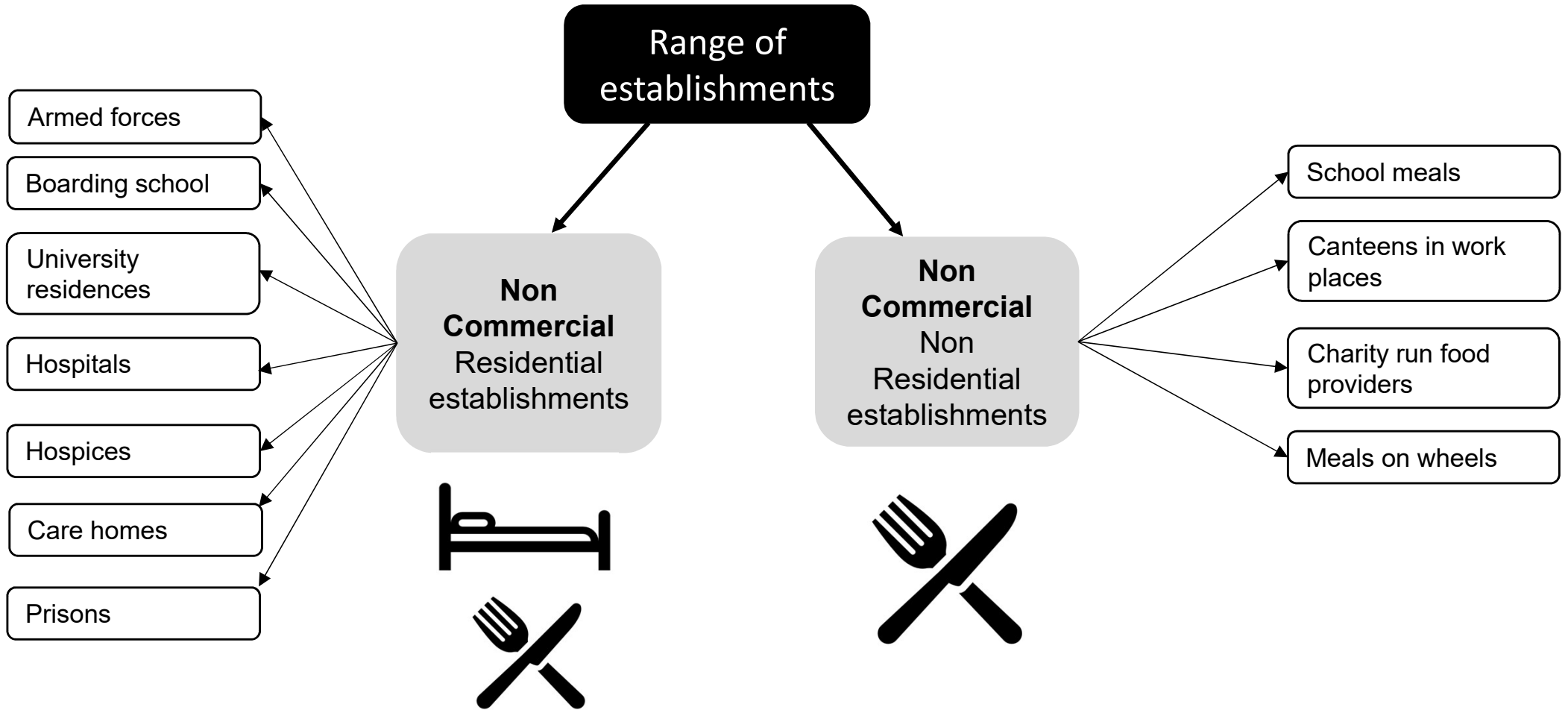
1.1.1 Hospitality and catering providers

Commercial establishments



1.1.1 Hospitality and catering providers

Non Commercial establishments



Non residential Options

Provision	Advantages	Disadvantages
Restaurants and bistros	Waiter service. Can ask questions about the menu. Comfortable seating at a table	Often more expensive than other options Waiting time can be longer than other options
Pop-up restaurants	Often set up in convenient locations. Prices can be cheaper. Gives customers a chance to try new foods	The menu may be limited Only in location for a limited time
Cafe	Faster service than a restaurant. Lower prices than a restaurant. Wide menu choices – something for everyone	Can be crowded. Seating may not be very comfortable, for example fixed seats
Street food	Usually fast service. Cheap prices. Food is wrapped and ready to go. Can ask questions about ingredients etc.	Hygiene may not be as good as indoor venues, for example lack of pest control and temperature control. There may be no seating available. Usually need cash to pay
Mobile vans	Serve fresh, hot food. Very convenient if in your location	Only available at set days/times. Limited menu choice. Engine fumes can be a problem if engine left running
Fast food Fast service	Fast cooking, as food is often prepared/cooked beforehand. Cheaper prices. Easy to eat.	Often unhealthy choices. Not all packaging can be recycled so may be damaging for the environment.

Non residential Options

Provision	Advantages	Disadvantages
Takeaways and drive-throughs	Fast and convenient. Cheaper prices. No need to get out of the car at drive-throughs, so convenient for families with children and disabled customers.	Menu choice is limited Often unhealthy choices
Tearooms and coffee shops	Service is usually fast. Food is often freshly prepared. Good for snacks and lighter meals. Branded coffee shops offer a familiar setting and menu.	Limited menu choice. Can be crowded. Seating may not be comfortable, for example raised stools. Can be expensive.
Delicatessens and salad bars	Offer a wide range of salads and sandwiches. Often sell hot food such as soups and jacket potatoes.	Waiting times can be long at peak times as food is often made to order. Seating may be limited or in a small space
Pubs and bars	Food often available all day. Generous portion sizes. Wide menu choices. Prices often cheaper than restaurants. Comfortable atmosphere	Seating may not be comfortable, for example raised stools. Waiting time can be longer than some other options, for example fast food and cafes
Visitor attractions (for example theme parks)	Catering sited in convenient locations. Fast service. Choice of catering options to suit different guests. May offer meal deals or unlimited drinks	The food is often expensive. Can be long queues Small portions. Some visitor attractions don't allow you to take your own food in, so they have a captive market
Vending machine	Very convenient. Open 24/7 Some take card payments	Choice of food/drinks very limited. Can be expensive Machines may only take cash. Can be out of order or money lost with no one around to help

Residential Options

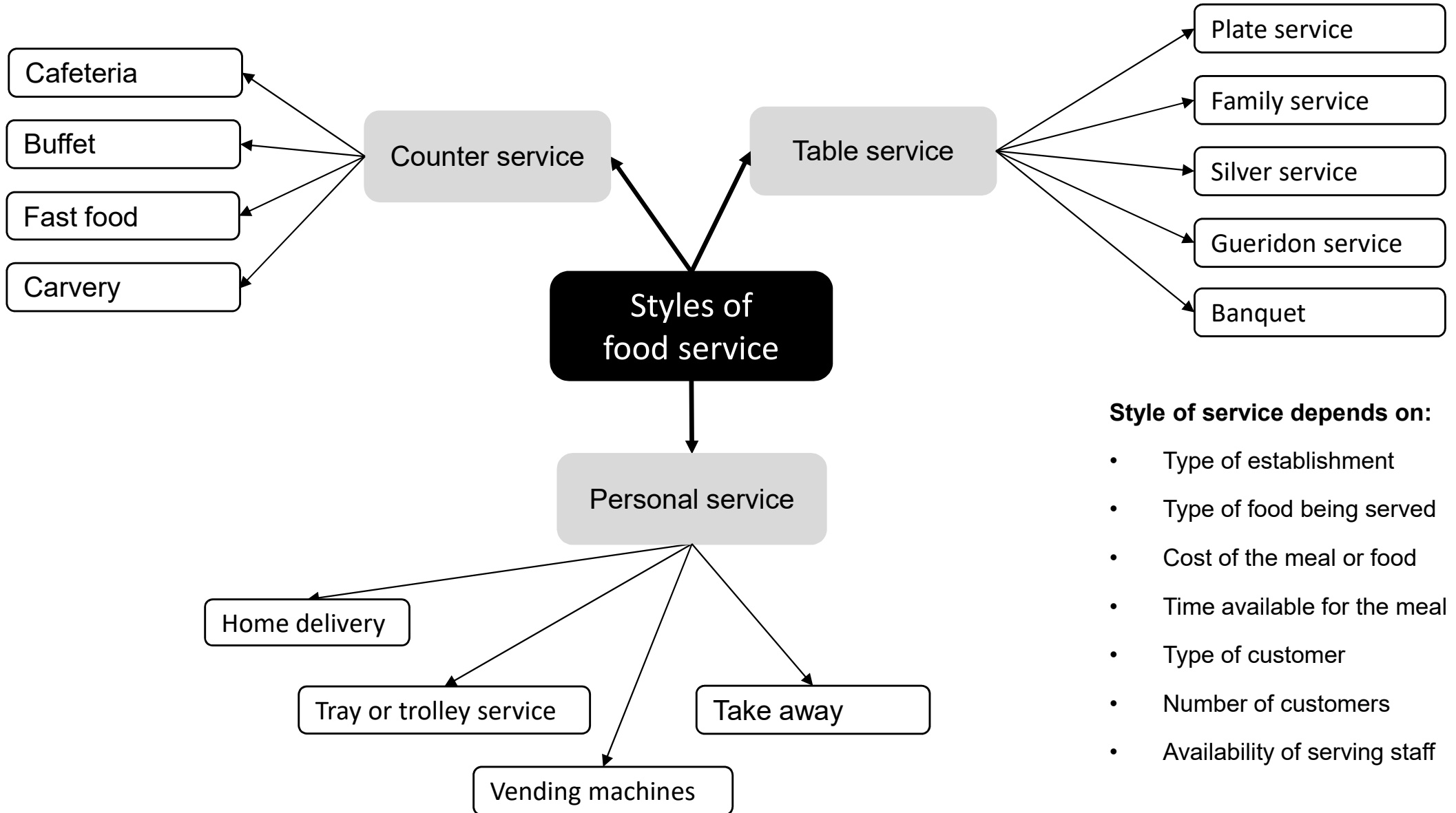
Provision	Advantages	Disadvantages
Youth and backpacker hostels	Cater for single people, couples, families and groups travelling on a limited budget. Basic but wholesome meals are provided. Self-catering facilities are usually available. Some rooms are private and have en suite bathrooms. Open to all ages	Mainly dormitory accommodation. May have to share bedroom/bathroom with others. Food choice is very limited. Usually pay more if you are not a member
Holiday parks	Suitable for single people, families and groups. Offer a wide variety of activities for all ages. Activities are scheduled at different times of the day to allow forward planning and choice. Facilities for guests with limited mobility levels are usually very good. Kids clubs are available which allow families time apart to follow their own interests	Can be expensive. Quality of food and the food choices may be limited. Lack of privacy Can be a noisy environment
B&Bs and guest houses	Often small and family run. Friendly service Good value for money. Guest houses may offer lunch and an evening meal. Less privacy than a hotel	Some farms can be noisy and/or smelly depending on the type of farm. Animals may wake up early, especially in the summer, which can disturb guests
Farmhouses	Often offer B&B and holiday cottages. Bedrooms meet national tourist board standards. Rooms are inspected to make sure they offer value and quality	Seating may not be comfortable, for example raised stools. Waiting time can be longer than some other options, for example fast food and cafes

Residential Options

Provision	Advantages	Disadvantages
Budget hotels (for example <i>Travelodge,</i> <i>Premier Inn</i>)	Cheaper than regular hotels. Convenient locations, for example near motorways and airports. Tea- and coffee-making facilities available. Shops, cafes and restaurants close by. Many have Wi-Fi	Few staff on duty at any one time. Can be noisy if near a motorway or airport. Some restaurants are located next door to budget hotels, rather than as part of the hotel
Luxury 5* hotels	Offer room service. Have Wi-Fi. Often have sports facilities, such as a gym or swimming pool. May have office and IT services. Provide food 24/7. Have a choice of eating venues	Expensive Dress code may be formal
Boutique hotel	Friendly service. Relaxed atmosphere. Very suitable for couples. Reputation for good food and wine	Expensive Children may not be allowed

1.1.1 Hospitality and catering providers

Food Service



Style of service depends on:

- Type of establishment
- Type of food being served
- Cost of the meal or food
- Time available for the meal
- Type of customer
- Number of customers
- Availability of serving staff

Food Service - Table Service

Method	Description	Comments
Plate	The food is put on plates in the kitchen and served by waiting staff. Good portion control and food presentation consistent	<p>From cafés to luxury restaurants</p> <p>Good portion control methods</p> <p>Consistent presentation of food</p> <p>Relies more on skilled kitchen staff than the skill of serving staff</p> <p>Time consuming for the kitchen</p>
Family	The food is placed on serving bowls on the customer's table for customers to share between them	<p>Sociable</p> <p>Less portion control</p> <p>Easy and quick to serve</p> <p>Suits families with young children</p> <p>Needs big tables to fit all of the dishes on</p>
Silver	A waiter will transfer food from a serving dish to the customer's plate using a silver spoon and fork at their table	<p>A more personal customer experience</p> <p>Can be slow service</p> <p>Portion control may fluctuate</p> <p>Staff costs are high as it needs more serving staff</p>
Gueridon	Food is served from a trolley to the customer's table, the food is then cooked and/or finished and presented in front of the customer. Creates an atmosphere of sophistication and entertainment.	<p>Very specialist, skilled service</p> <p>Individual attention</p> <p>Very high staff and menu costs</p> <p>Time consuming</p>

Food Service - Counter Service

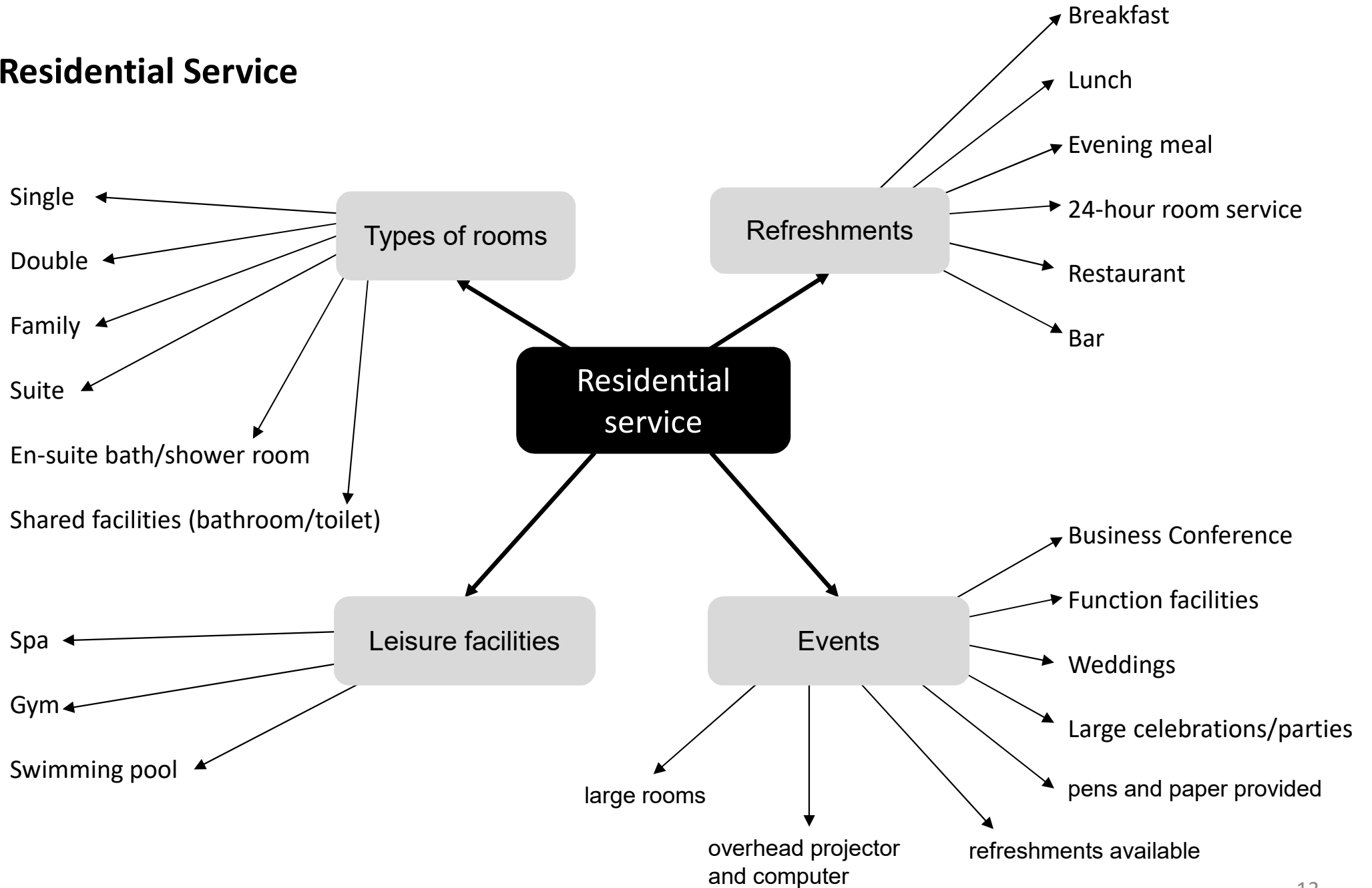
Method	Description	Comments
Cafeteria (free flow)	All types of food and drink are shown on a long counter for customers to move along with a tray for them to choose what they want to eat	<p>Queuing is often required</p> <p>It can be fast so can produce a high turnover</p> <p>A simple, basic experience for customers</p> <p>There can be impulse buying from displays</p> <p>Low skill of serving staff</p>
Buffet	Arrange of foods served on a big serving table where customers walk up to collect their plate and help themselves to food and drink. The food can be hot or cold, and some items could be served by waiting staff.	<p>Creates a more informal function than plated or silver service meals</p> <p>It can be fast and simple</p> <p>Poor portion control</p> <p>Needs efficient clearing away of crockery</p>
Fast Food	The food and drink is displayed on a menu behind the counter, often with pictures. Quick, simple, and usually served with disposable packaging.	<p>A quick and simple method of service</p> <p>Can be a very high turnover of food</p> <p>Often a limited choice of menu</p> <p>Use of disposable packaging and utensils because of the type of food and service</p>

Food Service - Personal Service

Method	Description	Comments
Tray or Trolley	the meals are served on trays from a trolley and customers sometimes order items in advance	Available where needed Trays are used in airlines, hospitals and hotel rooms (room service) Trolleys are used in offices, airlines and trains
Vending	Sold from a machine	24 hour service if required Drinks, snacks and meals can be offered including hot meals
Home Delivery	the customer's order is made over the phone or online, and is then delivered by the business to their address.	Wide range of foods available from many different restaurants Home delivery options have increased due to Deliveroo / Uber eats
Takeaway	food that's cooked by the business onsite and then eaten elsewhere	Wide range of foods available from many different restaurants Quick and convenient

1.1.1 Hospitality and catering providers





Residential Service



1.1.1 Hospitality and catering providers

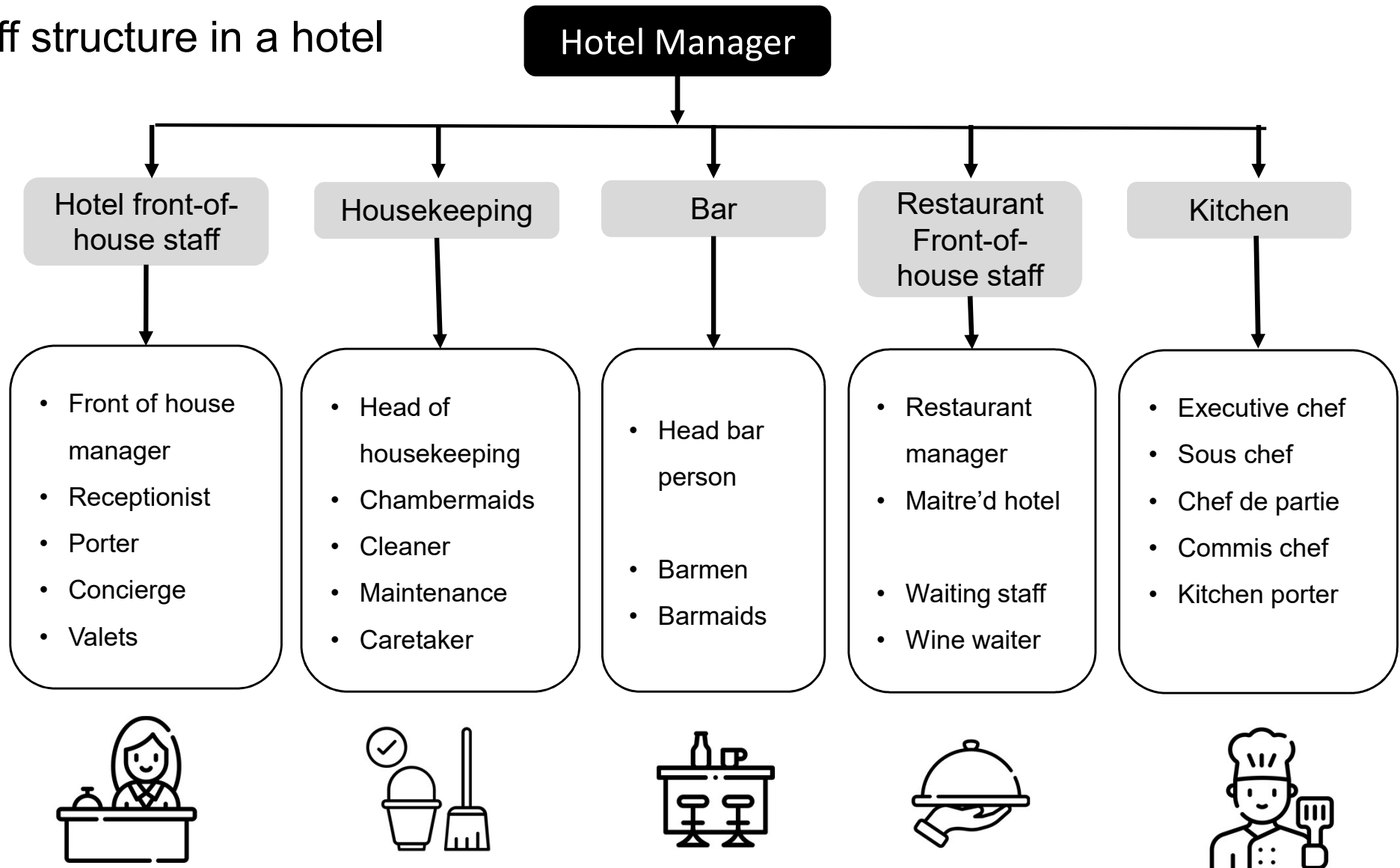
Standards and ratings

If an establishment achieves a high star rating, it is likely to be very popular with customers.

Type of rating	What is inspected	How are ratings awarded	Who inspects?
Hotel and guest house standards 	Facilities, level of customer care Cleanliness, disabled access, meets H&S requirements?	1, 2, 3, 4 or 5 stars	AA, Visit Britain, Tourist boards. Social media reviews
Restaurant standards 	Type/range of food being offered, quality of food and ingredients, level of culinary skill	Michelin Guide 1,2 or 3 stars	Anonymous people sent to review by Michelin guide
Restaurant standards 		1, 2, 3, 4 or 5 rosettes	Anonymous people sent to review the restaurant
The Food Hygiene Scheme 	Hygiene – food handling, preparation, cooking & storage Cleanliness, food safety including system checks.	0-5 on the Food Hygiene rating	An Environmental Health Officer working for The Food Standards Agency.

1.1.2 Working in the hospitality and catering industry

Staff structure in a hotel



1.1.2 Working in the hospitality and catering industry

Job roles – Hotel front of house

Front of house staff are the first people that customers meet when they arrive at an establishment.

Hotel Manager

- Ensure all areas run smoothly
- Managing all hotel staff
- Budget planning and marketing
- Resolving customer complaints
- Co-ordinating suppliers

Receptionists

- Take bookings
- Check customers in and out of the establishment
- Deal with customers' questions and problems

Concierge

- Welcoming customers
- Advises and helps customers with tourist trips
- Arranges taxis for customers

Valet

- Greets guests upon their arrival
- Opening doors and taking luggage
- Provides customer service by parking and retrieving their vehicle.

Porters

- Help customers to their rooms
- Set up rooms for meetings

Night porters

- Work on reception at night
- Help late arrivals

1.1.2 Working in the hospitality and catering industry

Job roles – Hotel housekeeping

Housekeeping staff work 'behind the scenes' to make sure that rooms, communal areas, bathrooms and other facilities are clean, tidy, safe, pleasant and comfortable.

Head of Housekeeping

Inspecting cleaning of rooms, corridors, and common areas (reception, lounge, stairs)
Managing housekeeping staff rotas
Assigning jobs to staff
Ordering stock

Chambermaid

Cleaning rooms and corridors
Changing beds
Stocking up toiletries
Stocking tea and coffee
Refilling mini bar

Cleaner

Cleaning other areas of the hotel
Reception, lounge
Cleaning function rooms, business facilities

Maintenance

repairs and maintains the establishment's machines and equipment, such as heating and air conditioning. These responsibilities could also include painting, flooring repair or electrical repair

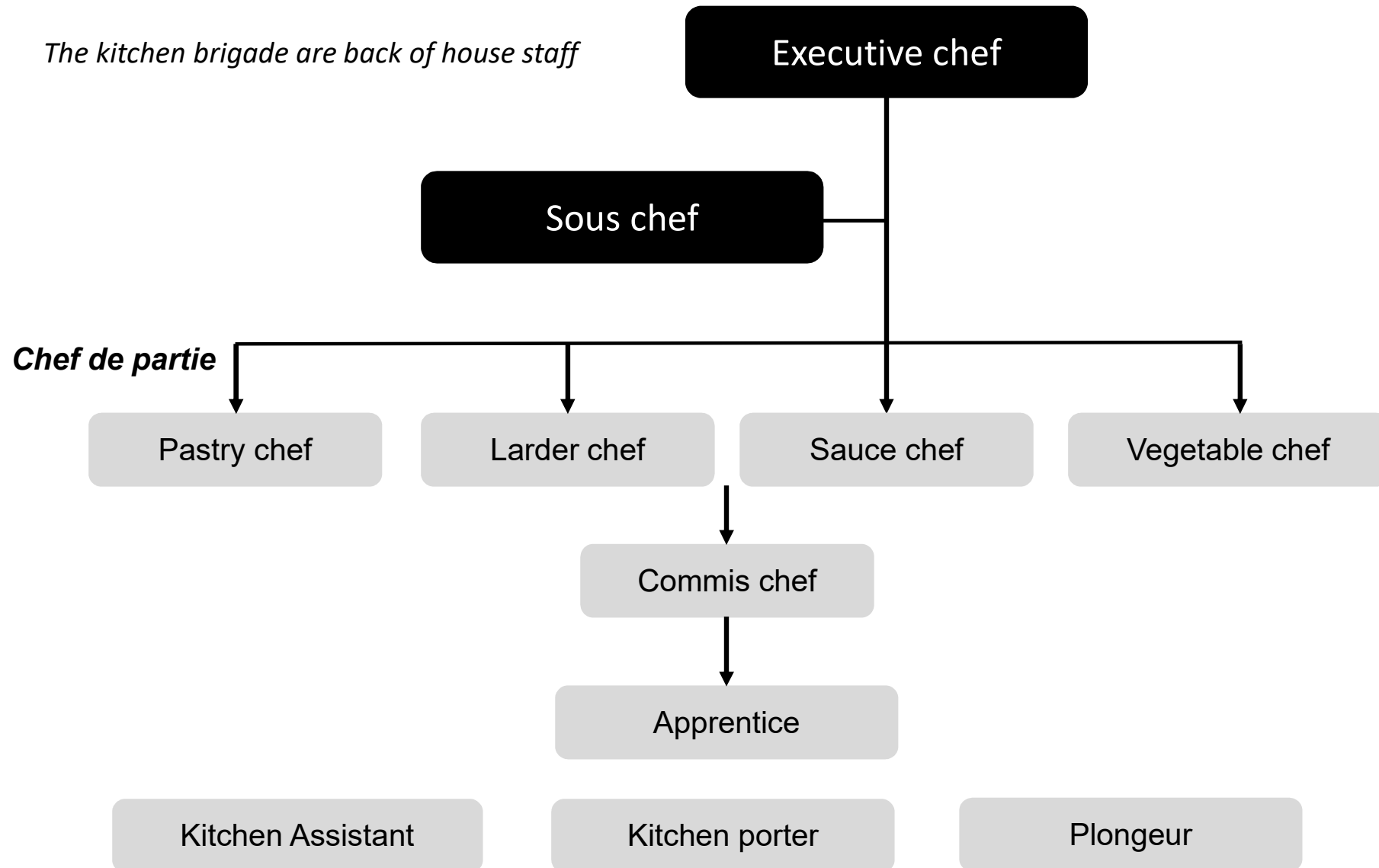
Caretaker

carries out the day to day maintenance of the establishment
Booking and supervising contractors for major repairs
Monitoring cleaning materials, tools, and furniture
Ordering stock

1.1.2 Working in the hospitality and catering industry

The kitchen brigade

The kitchen brigade are back of house staff



1.1.2 Working in the hospitality and catering industry

Job roles – Kitchen Staff

Executive (Head) Chef

Creating menus cooking and preparing food
Ordering and dealing with suppliers
Monitoring the quality of food going out of the kitchen and giving the finisher dishes their final touches
Managing staff: hiring, training, and sorting rota and pay
Managing and implementing legal legislation
Liaising with the general manager and meeting with other managers .
Dealing with problems or complaints.

Sous Chef

The next chef in command who will take over from the executive chef when they are away from the kitchen
Managing food preparation and directing tasks
Supervising staff and kitchen stations
Implementing legal legislation
Ensuring that food standards are maintained, as well as the high quality of the food
Assisting the executive chef with managing staff, creating a menu, and completing any admin

1.1.2 Working in the hospitality and catering industry

Job roles – Kitchen Staff

Chef de Partie

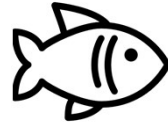
A chef de partie oversees a particular area within the kitchen

In larger kitchens a chef de partie may oversee other chefs within their station



Butcher chef (Boucher)

in charge of preparing meats before they are used in other stations.



Fish chef (Poissonnier)

Specialist chef in preparing fish dishes and sauces.



Fry chef (Friturier)

In charge of fried dishes.



Grill chef (Grillardin)

Specialist of foods that require grilling.



Pantry chef (Garde manger)

Responsible for preparing cold dishes (also known as a swing chef).



Roundsman (De tournant)

A relief chef. This person will fill in on stations.



Pastry chef (Pâtissier chef)

in charge of the pastry station where baked goods, desserts, and pastries are made

1.1.2 Working in the hospitality and catering industry

Job roles – Kitchen Staff

Apprentice / Commis Chef

Learning about food preparation techniques and assisting station chefs

Assisting with cleaning, deliveries and stock taking

Kitchen Plongeur

Scraping down walls, tiles, fridges, and freezers.

Maintaining and cleaning stations washing floors, taking out the rubbish

Cleaning all large equipment

Cleaning all the pots, dishes, and utensils

Kitchen Assistant

Washing and cleaning equipment and utensils.

managing waste disposal

Organising and managing equipment ready for the working day

Cleaning and maintaining hygiene and safety within the kitchen

Helping all station chefs (wash, peel, chop ingredients)

Kitchen Porter

Keeping the fridge/freezer and storeroom organised.

collecting equipment and utensils and washing them

Checking that all equipment is washed and placed away correctly

Unloading and taking deliveries

Emptying bins, sweeping and washing the floor

1.1.2 Working in the hospitality and catering industry

Job roles – Restaurant front of house

Food and beverage manager

- Overseeing service in the restaurant, making sure that the bar, restaurant and food is presented to a high standard.
- Monitoring sales, and analysing covers and orders to evaluate sales and profits discussing menu planning with the executive chef
- Checking that standards are met by monitoring and training staff
- Directing the head waiter or maitre d'hôtel
- Checking the inventory and ordering when needed
- Liaising with the executive chef and evaluating sales performances
- Organising bookings, parties, or special events
- Making sure the customer has a warm welcome, and their needs are met

Maitre'd hotel

- ensuring customer enjoyment and making sure the standards remain high
- Meeting and greeting customers
- Recording bookings and checking reservations.
- checking ID on customers requesting alcoholic drinks
- Directing waiting staff on the daily bookings, requirements, and expectations of standards
- Getting to know the customers, their special dietary needs, and preferred table
- Dealing with complaints or problems
- Liaising with the executive chef
- Monitoring and supervising waiting staff

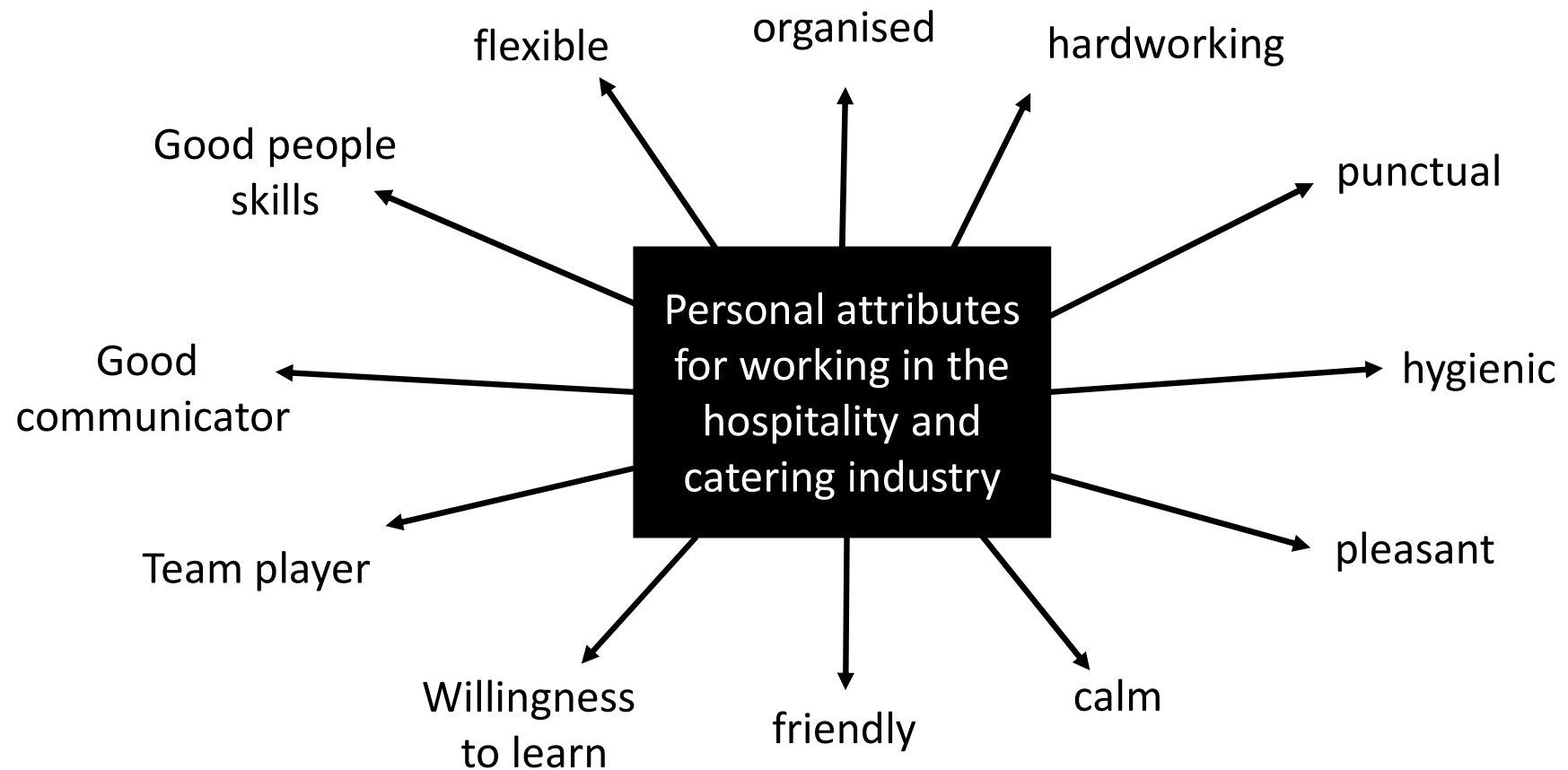
Waiter

- Setting up and preparing the table with linen, cutlery, and glasses
- Providing information regarding the menu, e.g. allergens Ensuring customer satisfaction
- Greeting, escorting, and serving customers
- Taking used dishes/cutlery/glasses to the back of house
- Checking ID on customers requesting alcoholic drinks Taking orders, serving food and drink, serving the bill and taking payment
- Making recommendations; house specials or wine list

1.1.2 Working in the hospitality and catering industry

Personal attributes

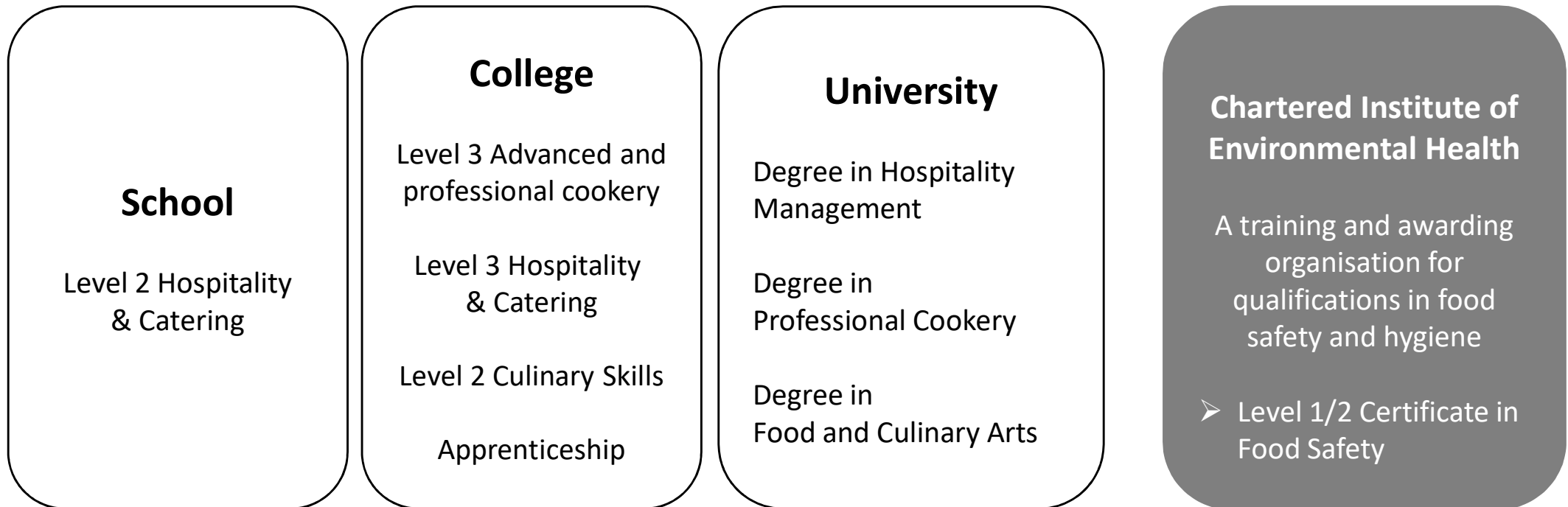
A personal attribute is a quality or personality trait that someone has in their character. Different job roles require different sets of skills and personal attributes.



1.1.2 Working in the hospitality and catering industry

What training and qualifications do you need to work in the hospitality and catering industry?

Once you leave school there are lots of courses available at different further education colleges and universities to provide additional training and qualifications. Below are four examples of organisations which provide advice, courses and other training opportunities:



1.1.3 Working conditions in the hospitality and catering industry

Types of employment contracts and working hours:

Contracts and pay

Full-time and part-time employees must have:



Contract



Payslip



Sick pay



Rest breaks



Holiday pay



Maternity,
paternity and
adoption pay

A **permanent** contract means the job is permanent, which allows for job security for the employee

A **temporary** contract means the job is not permanent and will end when the contract date is up

Pay and benefits

A salary: this type of pay is a fixed amount of money paid by the employer monthly, but is often shown as an annual sum on the contract.

Holiday entitlement: employees are entitled to 28 days paid a year. Part-time contracts are entitled less depending to their contract hours.

Pension: on retirement age, an employee qualifies for a pension contribution by the employer and the government.

Sickness pay: money paid to the employee with certain contracts when they are unable to go to work due to illness.

Rates of pay: national minimum wage should lawfully be offered to all employees over 18 years of age. This rate is per hour and is reviewed each year by the government.

Tips: money given to an employee as a 'thank you' reward for good service from the customer.

Bonus and rewards: given from an employer to the employee as a way of rewarding all the hard work shown from the employee throughout the year, and helping make the business a success. Also known as remuneration.

Working hours

The working hours directive in the UK states that employees on average cannot work more than 48 hours which is worked out over a period of 17 weeks. Employees can choose not to follow this and work more hours if they want to.

People under the age of 18 cannot work more than eight hours a day and 40 hours a week.

Employees that work six hours or more a day must have a break of 20 minutes, and have the right to have at least one day off every week.

Types of employment contracts

Type of contract	Description
Casual	This type of contract could be provided through an agency and used to cover employees that are absent from work due to illness. There is no sick pay or holiday entitlement with this type of employment
Full time (permanent)	Working hours including start and finishing times are fixed and stated in this type of contract. A contract of this nature allows the employee to have sick pay and holiday entitlement
Part-time (permanent)	working hours mean that the employee works on certain days of the week. Work times are stated in the contract, including the starting and finishing times that are fixed in this type of contract. The employee has sick pay and holiday entitlement in this type of contract
Seasonal	this type of contract is used when a business needs more staff due to busy times throughout the year, such as the Christmas period. The contract will state for the employee to work for a specific time frame only. Also, the contract would not expect further or regular work after the contract is complete
Zero hours contract	this type of contract is chosen between the employer and the employee. This means that the employee can sign an agreement to be available for work when the employer needs staff. No number of days or hours is stated in the contract and the employer doesn't require to ask the employee to work, and neither does the employee have to accept the work offered. No sick pay or holiday entitlement is offered for this type of contract

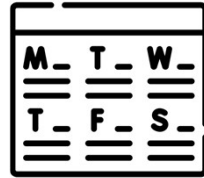
1.1.3 Working conditions in the hospitality and catering industry

Staffing during peak times



Busy times of year:

- Christmas
- Tourist season
- School holidays
- Mothers day
- Valentines



Days of the week

- Friday
- Saturday
- Sunday



Time of day

- Lunchtime
- Afternoon
- Dinner time
- Breakfast

Tips

Most establishments divide between the workers, don't count towards minimum wages but you should pay tax on them

Other remuneration:

- Meals
- Accommodation
- Uniform
- Bonuses



Keywords

Employee – someone who works in the industry and has an employment contract

Employer – someone who hires staff to work for them

Worker – someone who works in the industry but does not have an employment contract

1.1.4 Contributing factors to the success of hospitality and catering provision

The hospitality and catering sector is very competitive, and many businesses fail in the first year of operation.

There are many factors that must be managed carefully for hospitality and catering businesses to make a profit and continue to operate in the long term.

Basic costs

Labour: These costs include employee wages, National Insurance contributions and pension contributions.

Material: These costs include decoration, furnishings, kitchen and dining equipment, ingredients, printing and health and safety equipment.

Overheads: These costs include rent, rates, gas and electricity, insurance, licensing, training and maintenance.

Profit

Gross Profit: The difference between how much a menu item costs to make and how much it sells for. Ingredient costs should not be more than 30% of the gross profit.

If the ingredient cost for a chocolate brownie dessert is £1.50 and the menu price is £4.50, the gross profit is £3.00.

Gross Profit % = $(3.00 \div 4.50) \times 100 = 66.6\%$

Net Profit = What is left from the gross profit once all costs (as listed above) are covered.

Economy

The value of the pound (£) can affect the hospitality and catering sector. If the economy is good, people will be willing to spend more. If the economy is weak (recession), people may decide that eating out or going on holiday is a luxury and will spend less.

VAT (Value Added Tax) is added to the final cost of goods and services offered in the hospitality and catering sector. The money from VAT goes to the government to pay for services everyone uses for example the NHS.

1.1.4 Contributing factors to the success of hospitality and catering provision

Environmental impact

Running a hospitality or catering provision uses a lot of resources. Businesses are encouraged to **reduce, reuse, and recycle**. Energy efficient equipment such as low energy light bulbs can save a business money. Using local and seasonal ingredients reduces the amount of CO2 released into the atmosphere during transport. All waste should be separated and recycled or composted when possible.

New technology

New technologies have benefitted the sector in positive ways. These include:

- cashless systems such as contactless cards and mobile payment apps
- digital systems such as online booking/ordering and key cards
- office software such as stock ordering systems.

Media

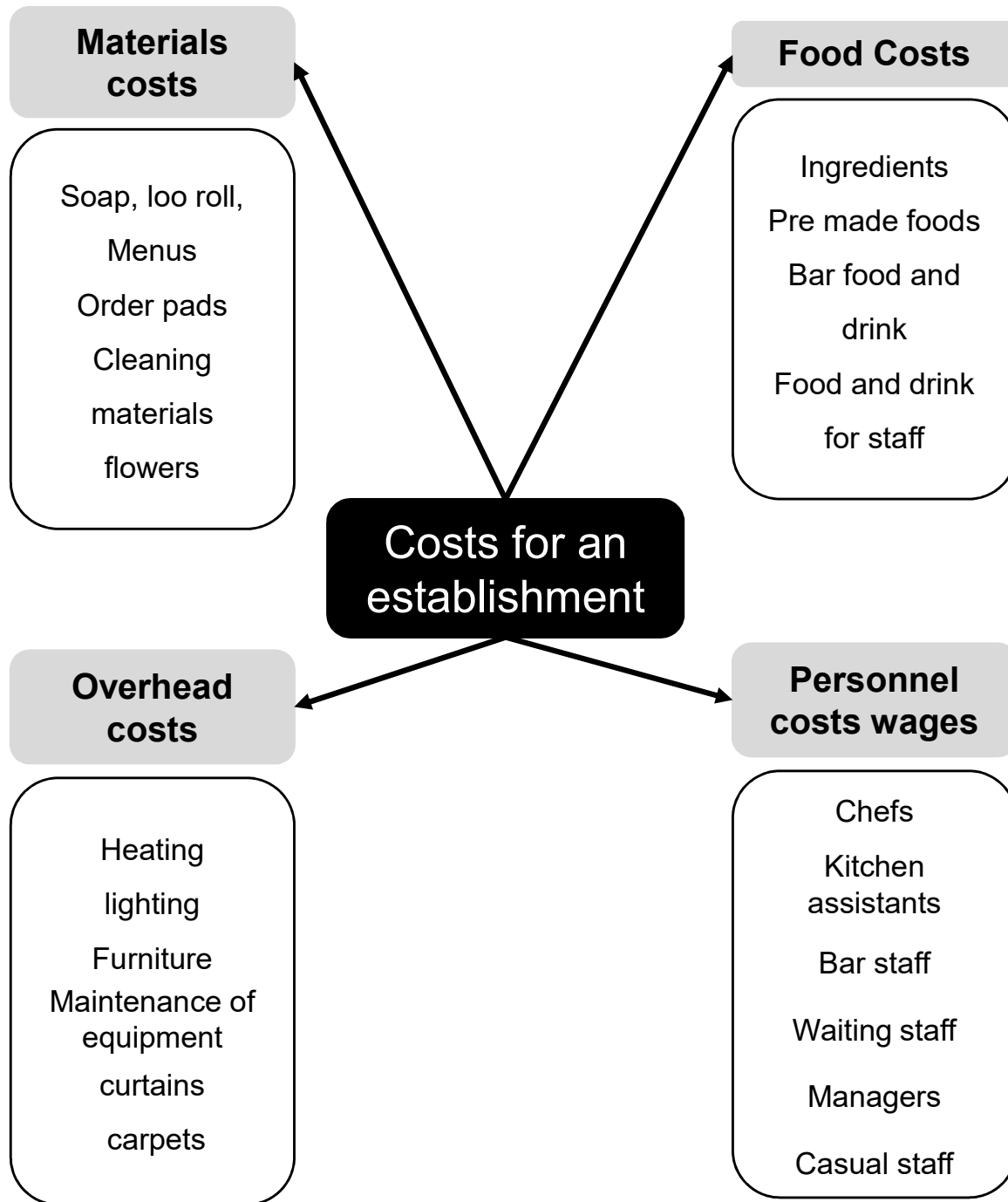
The hospitality and catering sector is very competitive, so most businesses try to make good use of the media to advertise. Most businesses will have their own **website**, which customers can use to view menus and make bookings.

Print Media: Ads in magazines and newspapers, flyers and money-off vouchers.

Broadcast media: Television, radio and online ads.

Social media: Customer feedback and reviews.

Consumers are increasingly using smartphones to book, order, pay and review.



Costing recipes

In order to calculate selling price and profit for dishes you need to calculate the recipe cost

$$\text{Ingredient cost} = \frac{\text{Pack cost}}{\text{Pack weight}} \times \text{weight used}$$

Divide by the number of portions made for the portion cost

Selling price

$$\text{Selling price} = \frac{\text{Portion cost}}{30} \times 100$$

Keywords

Gross Profit – the difference between how much the ingredients cost and how much a menu is sold for

Gross Profit percentage – the profit made as a percentage of the selling price of a dish

Net Profit – what is left from the gross profit after all the costs of running a restaurant have been paid (wages, heating, rent etc)

1.1.4 Contributing factors to the success of hospitality and catering provision

Portion Control

What is portion control?

- Portion control is the amount of each menu item that is served to the customer.
- It depends on the type of customer, the type of food served.
- Some foods are served in very small portions due to the high cost of the item e.g. caviar is served by the teaspoon.

Benefits of portion control

- Keeps the food costs down
- Keep losses in food preparation and serving to a minimum
- Offer a consistent portion to customers
- Minimise waste e.g. leftovers
- To make a profit which is constant

Ways of controlling portion size

- Scoops for ice cream, potatoes
- Ladles for soups, sauces, gravies
- Individual portion sizes
- Size of serving bowl etc
- Slices of a food
- Pre marked for portions
- Decorated for portions
- Pre portioned

The importance of environmental needs and environmental impact within the hospitality and catering industry

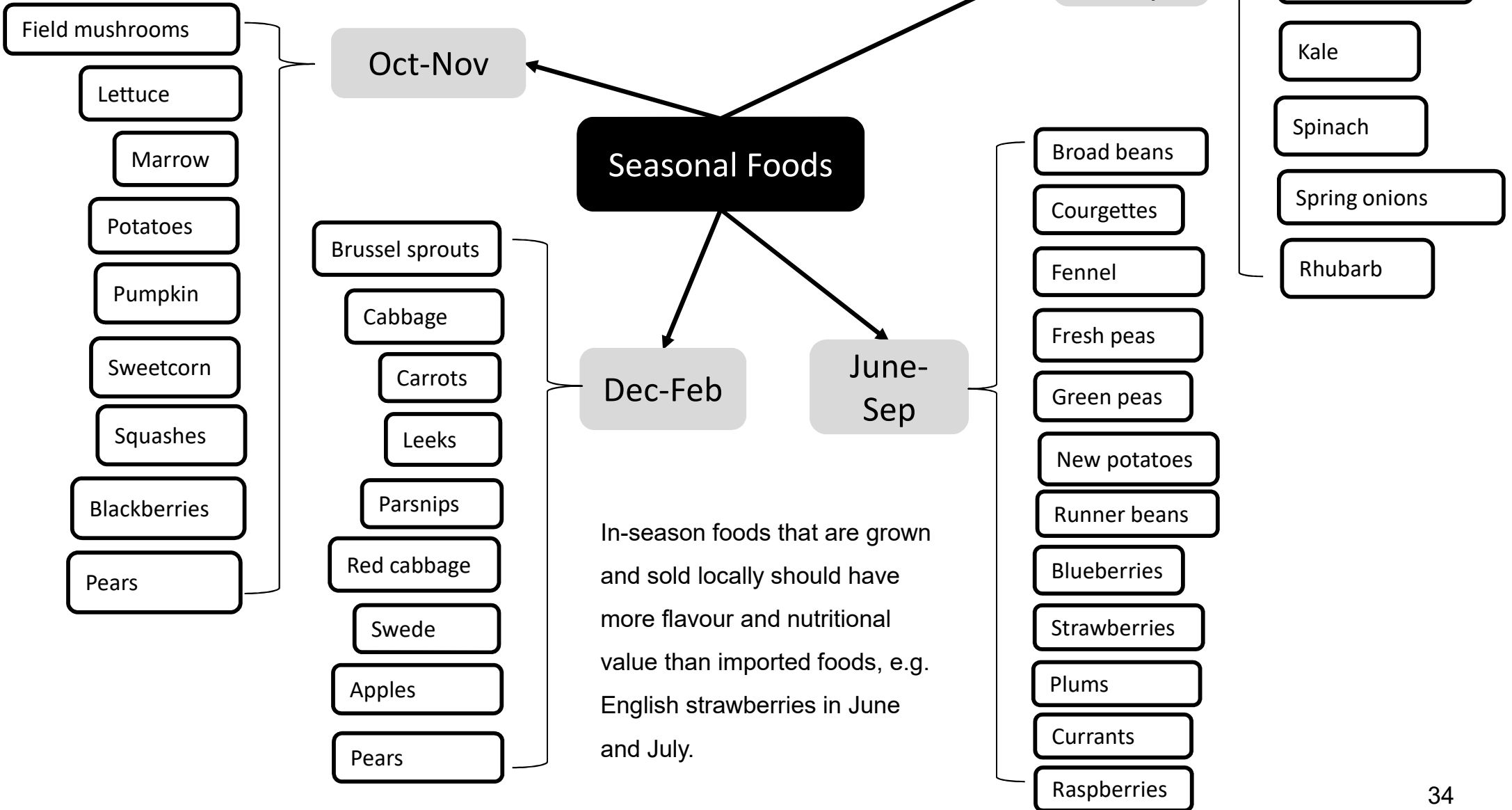
Seasonality

Seasonality and the drive for seasonal foods has increased tenfold; buying seasonal ingredients can help the local economy, the environment and be cost-effective for the provision. Buying local means that the lengthy transport and high food miles are reduced. The trend of buying seasonal ingredients is here to stay, and customers want to know that dishes and ingredients are locally sourced. Importing ingredients and products from outside the UK has many negative impacts:

- Chemical preservatives are sprayed on ingredients to make foods last in transport.
- Fruit and vegetables are artificially ripened.
- The overuse of transport: planes, ships and refrigerated lorries that give off greenhouse gases such as carbon dioxide (CO₂).

Seasonal Foods

Seasonal foods are foods that are harvested and consumed in the season they are naturally harvested in.



The importance of environmental needs and environmental impact within the hospitality and catering industry

Sustainability

Sustainability is being aware of the resources used; using ingredients, energy and materials that are sustainably sourced means they can have less impact on the environment. Most hospitality and catering provisions have recognised the importance of sustainability regarding the business' and customer's needs. Hospitality and catering provisions are investing in new, renewable, sustainable energy, which can help with lowering costs and can have a positive impact on the environment. They are using ingredients that have been sustainably grown without depleting the natural resources and are using products and materials that can be reused or recycled.

Reduce

Reduce the amount of food waste by reducing portion sizes, monitoring which dishes are selling well on the menu, managing stock, not over-purchasing, storing foods correctly to expand shelf-life, using the FIFO rule (first in, first out), checking and maintaining fridges and freezers. Reduce energy and water consumption by using energy-saving light bulbs, using light sensors in all public areas, reducing water by using push top taps, using a dual flush system in toilets.

Reduce food miles by sourcing local ingredients.

Reduce the packaging used and buy produce in bulk.

Reduce the use of paper/card by using software or emailing information rather than printing and posting.

The importance of environmental needs and environmental impact within the hospitality and catering industry

Reuse

Reuse leftover ingredients to create dishes which can be placed on the specials menu.

Use signs in hotel rooms to encourage customers to reuse dressing gowns and towels and bedding instead of being changed every day.

Products that can be used for other purposes, e.g. containers to store food, tins to hold colouring pencils, glass bottles for flowers and table decorations.

Reuse old fixtures and furniture, e.g. upcycle to create a shabby-chic or vintage appearance.

The Eden Project in Cornwall reuses collected rainwater to flush the toilets at the establishment.

Recycle

Look for the recycle sign on the packaging and dispose in the correct recycling bin.

Place recycling bins at the provision, encouraging customers to recycle.

Recycle ingredients in compost bins.

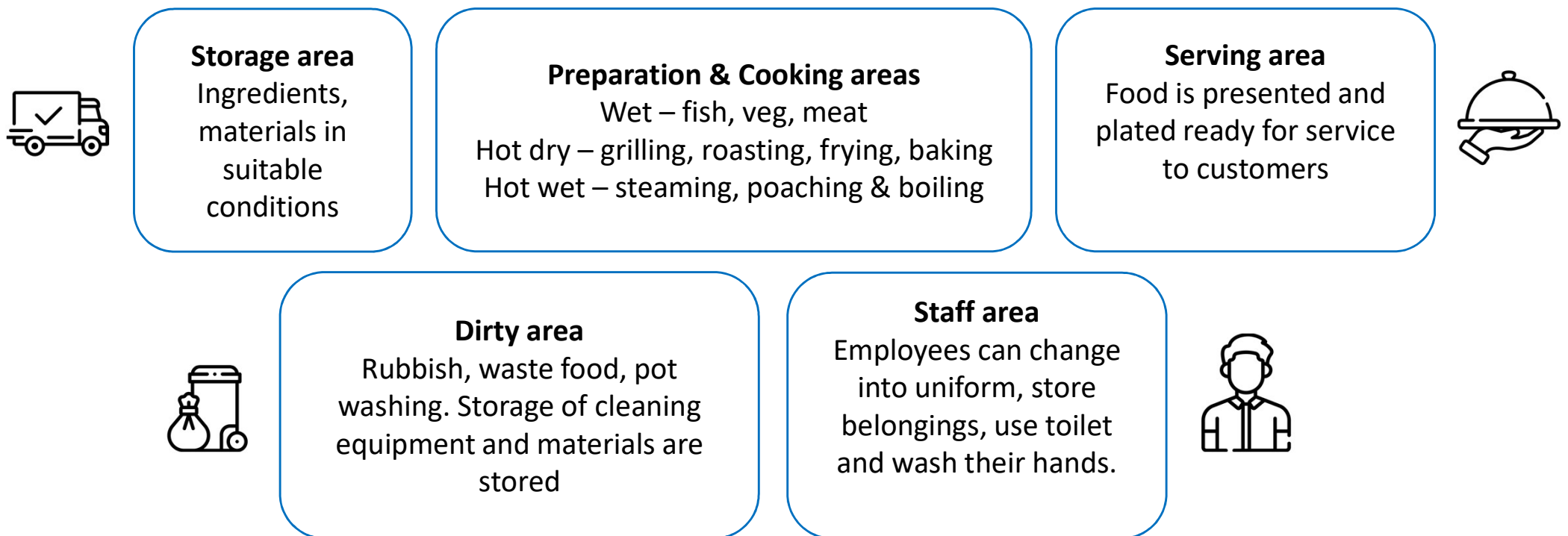
Old bedding and equipment can be given to charities and be reused by others.

Coffee grounds can be given to customers for soil/compost in gardens.

1.2.1 The operation of the back of house in a restaurant

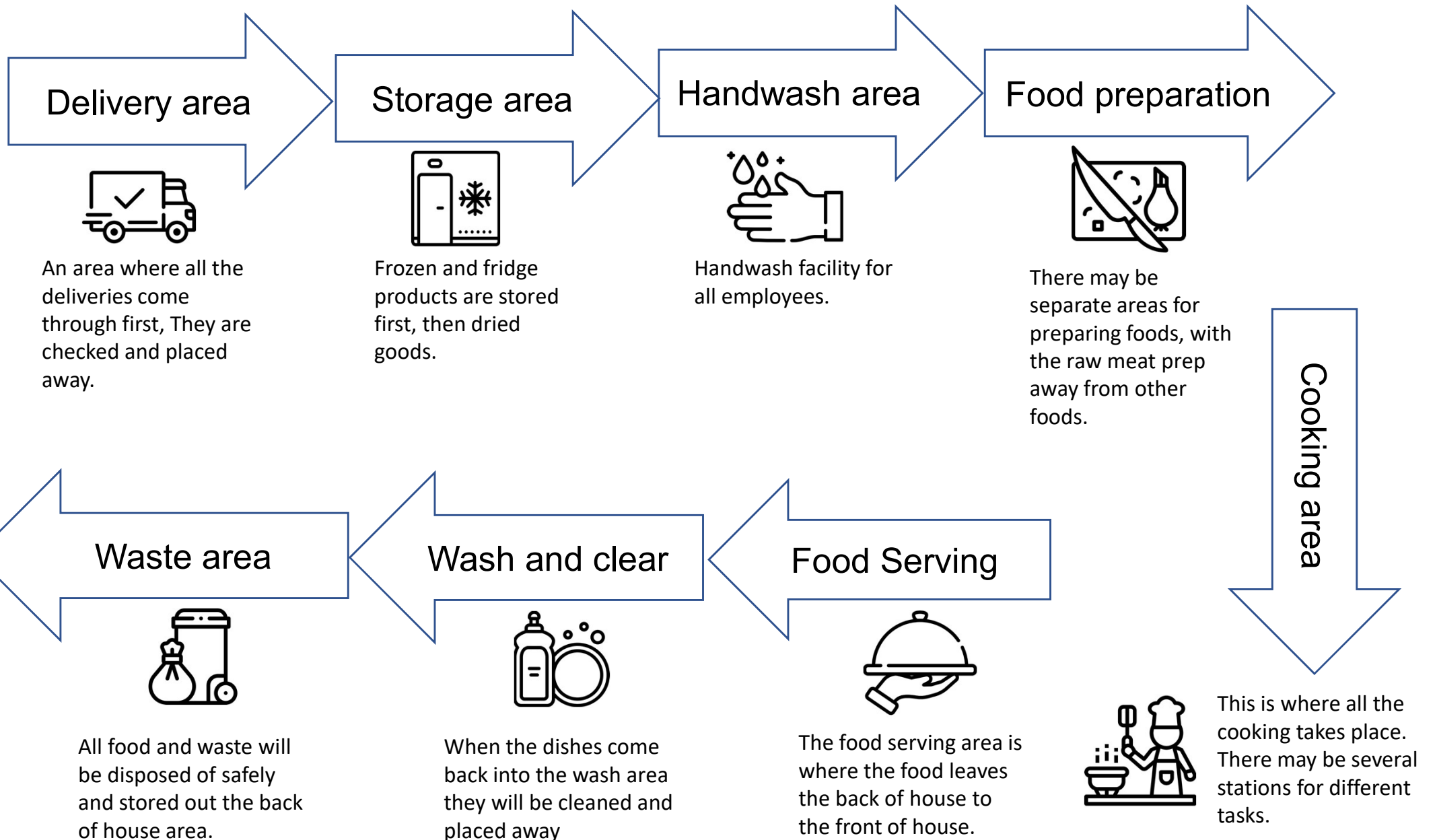
Operational activities in the kitchen

Kitchens are divided into separate areas where these activities take place



Workflow in the kitchen should follow a logical process by using different areas so that the clean stages in food production never come into contact with the “dirty” stages.

1.2.1 The operation of the back of house in a restaurant - Kitchen workflow



Small equipment and utensils



Grater



Chopping boards



Electric whisk



Balloon Whisk



Measuring jug



Colander



Measuring spoons



Masher



Tin opener

Weighing scales

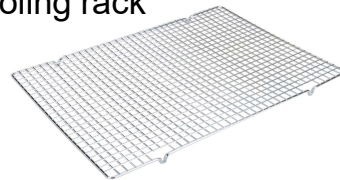


Sieve



Rolling pin

Cooling rack



Fish slice



Vegetable peeler



Frying pan

Baking tray



White mixing spoon



Sharp vegetable knife



Glass mixing bowl



Saucepan



Pallet knife



Spatula



Large Kitchen Equipment



Floor standing mixer



Walk in fridge or freezer



Large conventional oven



Deep fat fryer



Hot plate



Plate warmer



Industrial Steamer Oven

Large Equipment



Pass through dish washer



Standing bain marie



Hot water urn



Glass washer



Display fridge



Coffee machine

Small Equipment



Blender



Tabletop mixer



Mincer



Food processor

Rice cooker



Hand blender



Steamer



Vacuum seal



Coffee grinder



Microwave

Ice cream maker



Sous vide



Materials

Materials that are frequently used in a catering kitchen, restaurant or hotel:

detergents – to remove dirt and grease

disinfectant – to destroy bacteria

first aid kit

handwash and paper towels or hand driers

kitchen cloths

kitchen paper, foil, cling film, parchment paper, bin liners

mops, dustpan and brushes, brooms, aprons

oven gloves

sanitiser

tea towels

First aid box

Plasters

Thermometer

Safety pins

Instant cold pack

Scissors

Elastic bandages

Triangular bandage

Adhesive tape

Gloves

Emergency blanket

Tweezers

Antiseptic wipes

Stock control

- **Stock** refers to all materials, ingredients and equipment that are used in the kitchen.
- Businesses need to stay in profit and therefore need good stock control. A stock controller keeps accurate records of what is **purchased**, what is **used** and what needs to be **ordered**.
- An online stock controlling system can be more accurate therefore saving the business money
- **Stock rotation** – FIFO First In First Out



Documentation

Stock control system

Large provisions use a digital system with stock control software which automatically scans the stock used and re-orders when required. The FIFO (first in, first out) system should be used by every provision in order to use stock efficiently.

Ordering

A point of sale (PoS) system can be used for ordering products and paying for them. There are a variety of ordering systems available; some popular ones are mobile PoS where the server can take an order or payment on a digital device, card readers, touch screens, smartphones, and tablets.

Delivery notes

A delivery note is a document that lists all the products that have been ordered. Every provision will check off the delivery against the delivery note to ensure that all items ordered have been delivered correctly. If the delivery is wrong, the provision will need to contact customer services to rectify issues.

Food safety documents

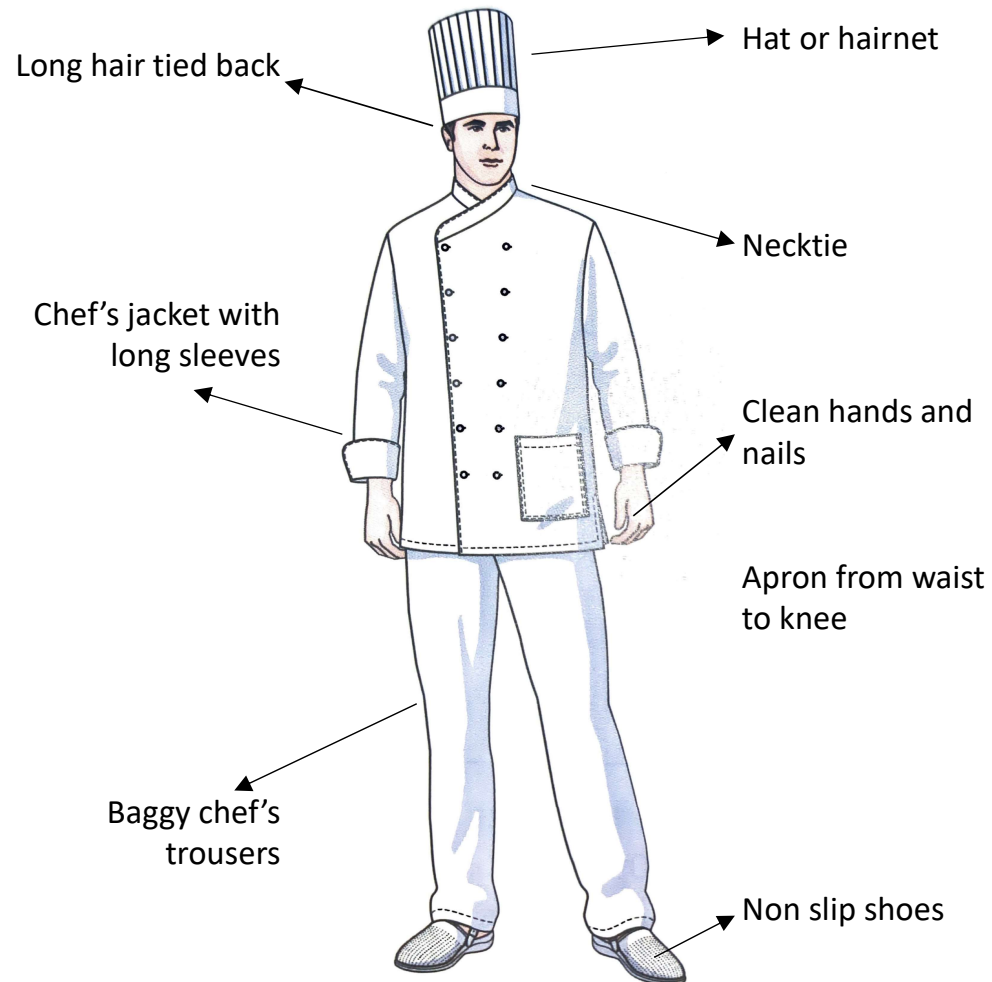
Hazard analysis and critical control point (HACCP) and risk assessments documentation are a legal requirement for all catering provisions - more information on these can be found in Chapter 3. All employees' food hygiene certificates, as well as stock rotation and temperature control monitoring documentation, should be recorded and kept.

Health and safety documentation

Risk assessments and accident documentation must be recorded and kept by law - more details can be found in Chapter 3.

Kitchen dress code

Where an item of clothing is for personal protection while doing the job then the employer must provide it free of charge.



A chef should wear:

A jacket with long sleeves, usually double-breasted, made from cotton to stay cool while still protecting the chef from heat, burns and scalds

Trousers, which should be loose fitting for comfort and made from cotton to keep cool; loose fitting trousers can be removed easily if hot liquids are spilled on them

Apron – this is worn around the waist, over the trousers, as added protection

Hat – called a toque, which is worn to prevent hair from falling into food

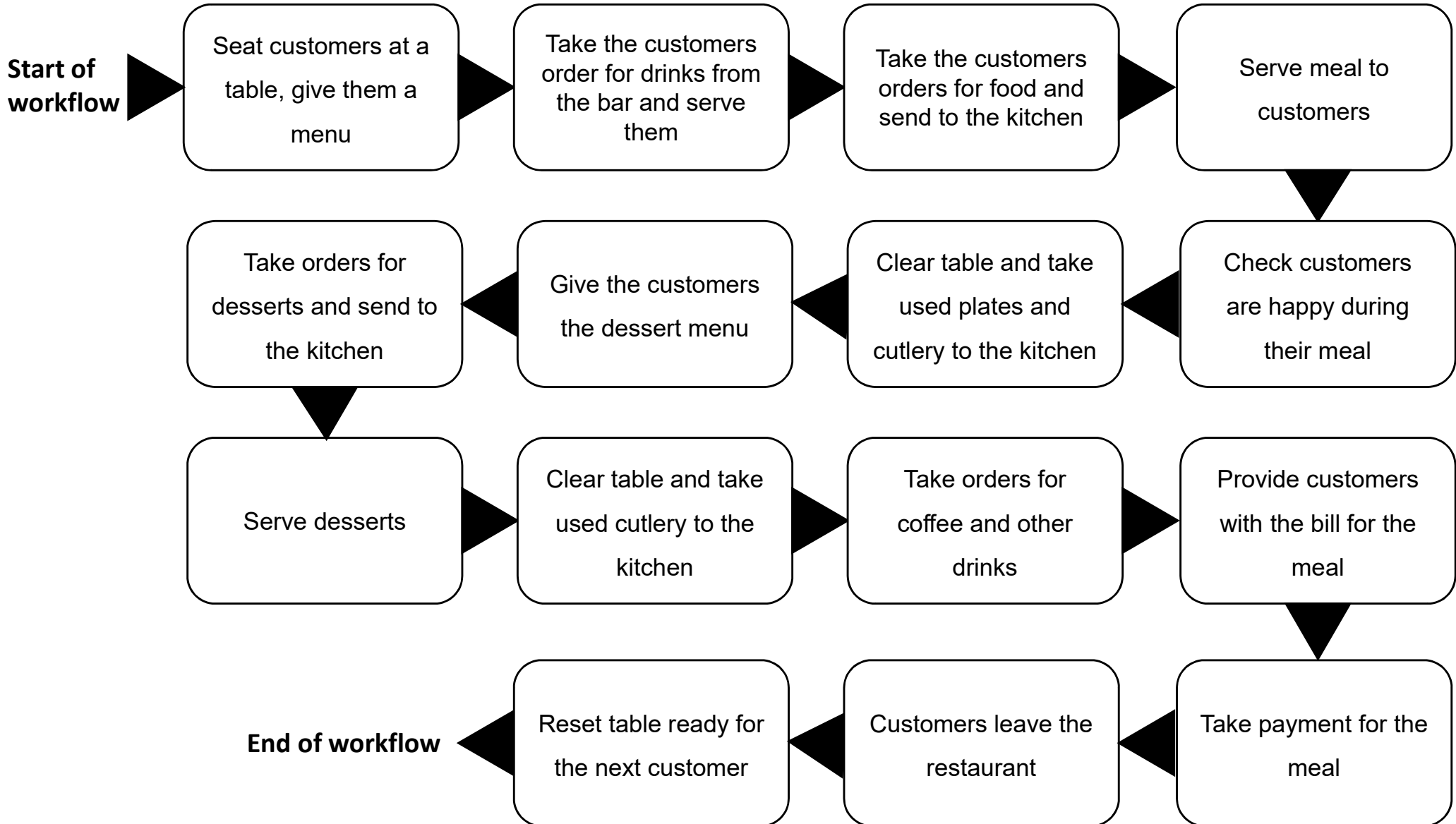
Neckties – these used to be worn to prevent sweat from dripping into food; they are not worn as often now due to improved ventilation in kitchens

Safety shoes – should have steel toe caps in case a knife or hot food is dropped on the feet

Kitchen cloth – tucked in the apron, kept dry for handing hot pans and equipment.

1.2.1 The operation of the front of house in a restaurant

Front of house workflow



Operational areas of front of house

Front of house refers to the areas customers can visit within a provision. Managing a front of house workflow is essential for the customer experience. If front of house workflow not work, the experience for the customer can suffer.

Reception

where customers check in and out, book tables and find out what facilities are offered both in the establishment and in the local area

Lounge

there is usually a social area where guests can relax with a drink or wait for their table

Bar

an area where drinks can be ordered; there are usually bar stools, tables and chairs

Restaurant/dining area

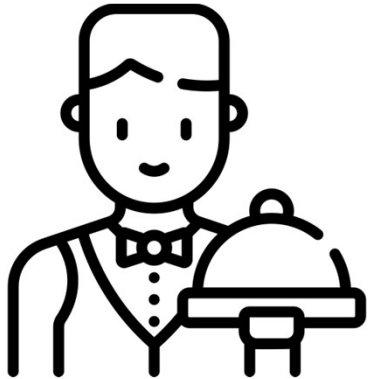
an area where guests can sit and eat a meal

Toilets and cloakroom

where guests can leave coats and use the facilities.

Front of house dress code

Front of house dress code is important as it is the first person a customer will see.



Front of house staff should:

- Have hair tied up to prevent it getting in the food
- Bow tie or tie for smart appearance
- Waistcoat
- Clean, ironed shirt
- Name tag
- Knee length apron
- Smart trousers or skirt
- Sensible shoes, flat and non slip

Front of house dress code

- ✓ Creates an important first impression – positive and professional impression
- ✓ Sets a standard and avoids employees wearing inappropriate clothing
- ✓ Employees feel part of a team
- ✓ Employees have pride in their work and makes them more productive when they feel good about how they look
- ✓ Makes employees stand out from the customers and easy to identify when a customer needs some attention or has a problem that needs to be solved

Rules:

- ✓ Uniform should be changed daily
- ✓ Jewellery must not be worn
- ✓ No heavy make-up, false nails or nail polish
- ✓ Strong scents should not be worn as they might taint the food

1.2.2 Customer requirements in hospitality and catering

Customer trends

Online services – people want instantaneous/fast/user-friendly communications technology

Messaging – businesses use this form of communication to attract and maintain customers

eg. Texts, emails, twitter, facebook, WhatsApp

Social media – customers can find out about and comment on/ review hospitality and catering businesses. Eg. Twitter, facebook, Instagram.

Online review sites – customers are less tolerant of poor service and quick to share bad experiences. Eg. Trip advisor, google maps

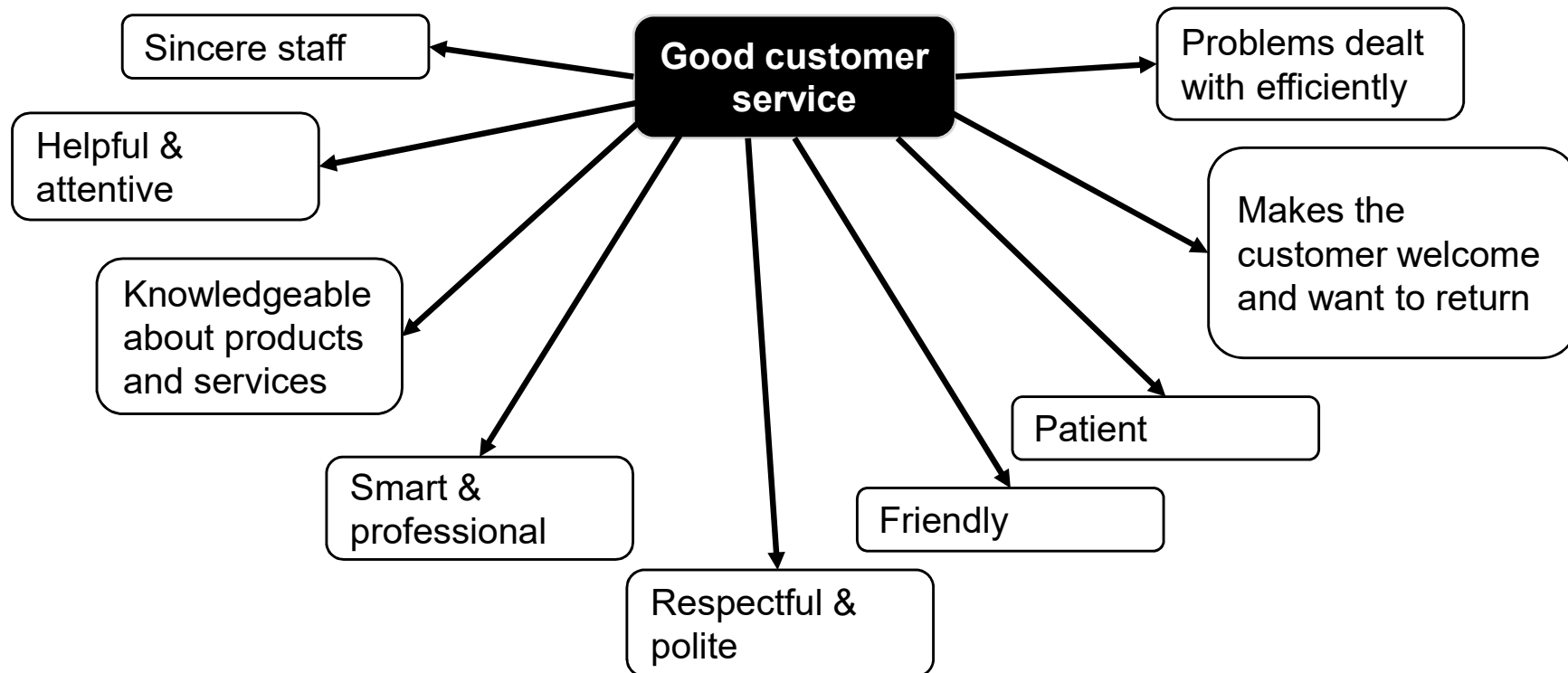
Self service – many customers prefer self service rather than dealing face to face

Environmentally and ethically conscious – customers are increasing choosing to buy goods and services that are environmentally and ethically conscious

Customer service

Customer service is what an establishment does in order to meet the **expectations** of their customers and generate customer satisfaction.

- **So customers return** - People will not return to a place where they were not satisfied with the service. Repeat business means a successful business.
- **Exceeding expectations** - This makes repeat business more likely.
- **Growth of the business** - If customers receive a high standard of service and return, they will spend more money and also tell other people about the business.



Dietary requirements

Specific Lifestyle Needs

Specific lifestyle needs are the choices and beliefs that people have about what they will eat.

Specific lifestyle need	Dietary requirement
Vegetarian	<ul style="list-style-type: none"> • Vegetarians don't eat meat, poultry, fish • Do eat dairy and eggs
Vegan	<ul style="list-style-type: none"> • Do not eat any food with an animal origin.
Religion - Hindu	<ul style="list-style-type: none"> • No beef or beef products • Most Hindus are vegetarian
Religion - Muslim	<ul style="list-style-type: none"> • No pork • Only eat meat that is halal, where animals are slaughtered in a religiously approved way.
Religion - Jewish	<ul style="list-style-type: none"> • No shellfish or pork • Only kosher meat • No dairy foods are eaten with meat in a meal.

Allergies

Which ingredients can cause a problem?

The image displays 12 common allergens arranged in a 4x3 grid. Each allergen is represented by a small illustration and a text label below it. The allergens are: Cereals containing gluten (wheat stalks), Peanuts (peanuts), Nuts (various nuts), Milk (milk carton), Soya (soybeans), Mustard (mustard jar), Lupin (lupin flour jar), Eggs (egg carton), Fish (fish), Crustaceans (crab and lobster), Molluscs (shellfish), Sesame seeds (sesame oil bottle and seeds), Celery (celery stalks), and Sulphur dioxide (beer and wine bottles).

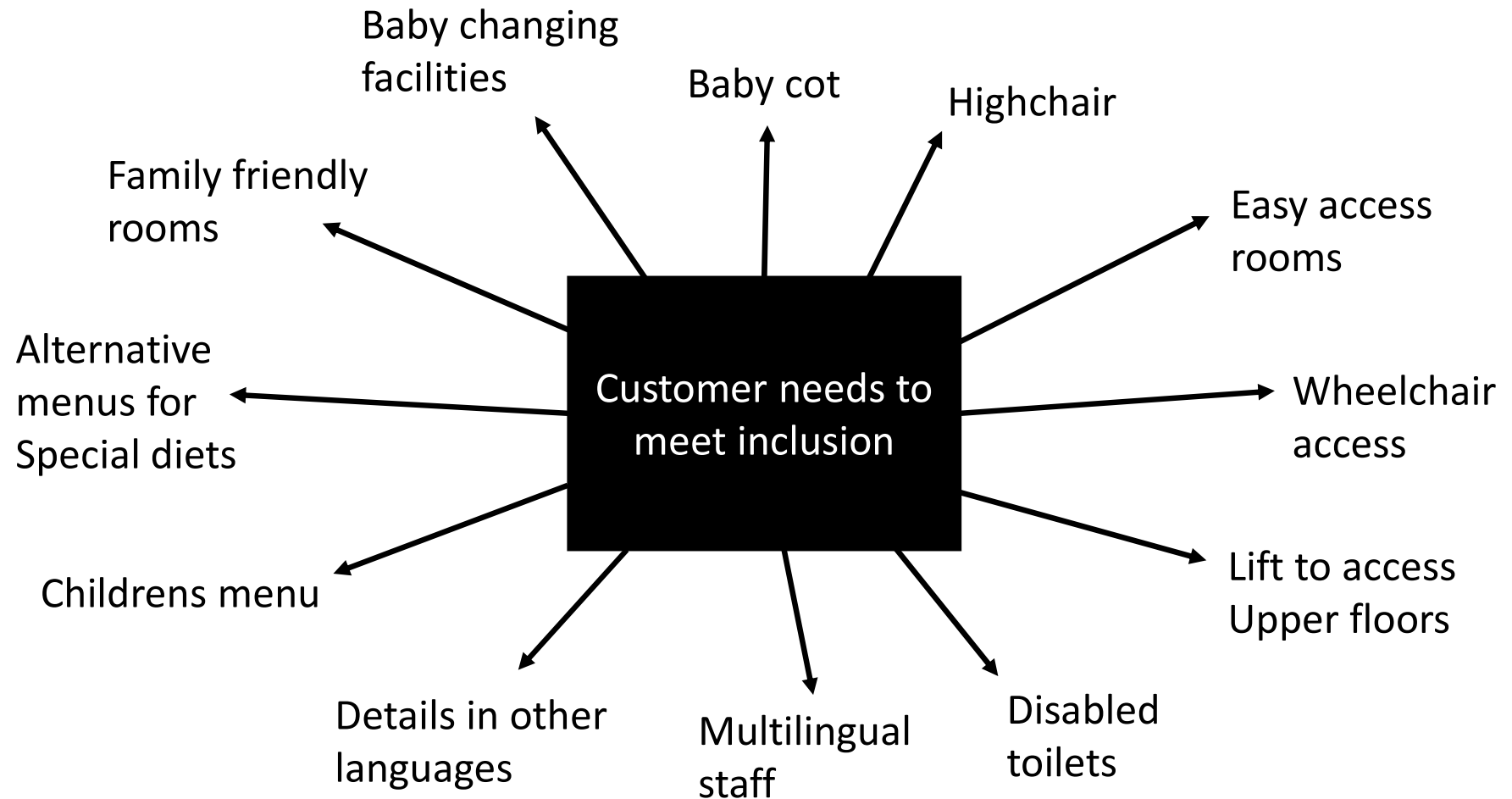
Specific Dietary Needs

In addition to dietary needs based on age and gender, people may also have specific dietary needs due to health conditions.

Specific dietary need	Description	Changes to diet
Coeliac disease	A condition where people have an adverse reaction to gluten, a protein found in wheat, barley, rye, and also oats, which contain a similar substance to gluten.	Gluten-free flour, Almond flour Buckwheat flour, Rice flour, Corn flour
Lactose Intolerance	Caused when the body is unable to digest lactose (a sugar found in milk and dairy products). Lactose intolerance causes stomach upset.	Cows milk must be avoided. Alternatives; soya milk, almond milk, rice milk.
Diabetes (type 2)	Either too little insulin is produced or the body's cells fail to react to the insulin that is produced.	A healthy balanced diet and increased physical activity.
Dental Health	Dental cavities due to dental decay.	Reduce sugar
Bone Health	Osteoporosis is common in old age. Bones become weak, brittle and more likely to break.	Diet rich in calcium and vitamin D
Iron deficiency anaemia	Lack of iron in the body leading to a reduction of red blood cells	Iron rich diet – leafy greens, brown rice, meat, fish, tofu, eggs
Obesity	Someone who is overweight, classified by their BMI	Calorie controlled diet and exercise
Cardio-vascular disease (CVD)	A disease of the heart or blood vessels	Low saturated fat, High fibre Low salt

1.2.2 Customer requirements in hospitality and catering

Customer needs



1.2.2 Customer requirements in hospitality and catering

Types of customer

Type of customer	Description	Requirements
Leisure	Customers who visit the establishments in their leisure time e.g. a meal with friends, a family day out, tourists,	<ul style="list-style-type: none"> Value for money Good facilities Families want child menus, play area, child friendly Tourists want local food, easy to communicate Older people may want more formal service Good customer service Varied choice of menu Dietary needs eg allergies, intolerances, vegetarian catered for without having to ask for special foods Facilities for physically impaired customers
Local Residents	Customers who live in the local area who visit the establishment often eg regular Sunday lunch, or get together	<ul style="list-style-type: none"> Value for money Good standard of customer service so they return Catering for local needs (culture, religion) Consistent dishes served Loyalty schemes Recognised by staff - feel welcome Menu specials Theme nights OAP discount day Child friendly Entertainment Mailing list or email for special offers

Types of customer continued

Type of customer	Description	Requirements
Business/corporate	e.g. business lunches. Use business facilities in establishment for meetings or presentations . Courses and conferences	Dedicated corporate (business) contact at establishment Discounted rates Meeting rooms Water, juice on tables Presentation equipment, projector, tv, Office facilities - printer, phone, fax, internet, stationery Tea and coffee for breaks Lunch or other meals - buffet or restaurant Accommodation if attendees are from a long distance Quick service for lunch meetings

Customers are influenced by

TV
 Magazines
 Health
 Travel abroad
 Technology
 Ratings and reviews

Customer Rights

The right to be protected (against hazardous goods)
 The right to be informed (about quality, quantity, allergies etc)
 The right to have their complaints be heard
 The right to seek redressal (compensation)
 The right to receive satisfactory goods that match their product description



Food Safety Act
1990



Consumer Rights Act
2015

1.2.2 Customer requirements in hospitality and catering

Customers rights and inclusion

Trade Descriptions Act

Makes it illegal to mislead customers by incorrectly describing or making false statements about products, services, facilities or accommodation.

Equality Act

Promotes equal opportunity for all people regardless of age, race, religion, disability, sexual orientation, gender

Consumer Rights Act

Products have to be of a satisfactory quality, fit for purpose and meet the description given.

The Consumer Protection Act

Prohibits the manufacture and supply of unsafe products and misleading prices being put on products and services.

1.3.1 Health and safety in hospitality and catering provision

Abbreviation	Full name
HASAWA	Health and safety at work act 1974
RIDDOR	Reporting of injuries diseases and dangerous occurrences regulations 1995
COSHH	Control of substances hazardous to health regulations 2002
PPER	Personal protective equipment at work regulations 1992
MHOR	Manual handling operations regulations 1993

HASAWA = Health And Safety At Work Act

Requirements of the employer

- ✓ Protect the health, safety and welfare of their employees and other people (e.g. customers and staff)
- ✓ Assess and control the risks that could cause injury or health problems in the workplace
- ✓ Give information to employees about risks in the workplace

Requirements of the employee

- ✓ Work in co-operation with your employer on health and safety issues
- ✓ Attend health and safety training sessions
- ✓ Report any safety or health hazards and problems with equipment, etc., to your employer



RIDDOR = Reporting of Injuries, Diseases and Dangerous Occurrences Regulations

Requirements of the employer

- ✓ The employer must report serious workplace accidents, diseases and certain dangerous incidents to the Health and Safety Executive HSE
- ✓ Employers must keep a record of any injury (particularly one that lasts more than 3 days) disease or dangerous incident

Requirements of the employee

- ✓ If you see or are concerned about a health and safety issue, first tell the person in charge, your employer or your union representative
- ✓ If nothing is done about it, you can report your concerns to the HSE
- ✓ If you are injured at work, there should be an accident book in which to record your injury. Always check the details, sign and date the form.

What has to be reported?

- Death
- Injuries resulting in over 7 days off work fractures amputation of limbs or digits
- loss or a reduction of sight;
- crush injuries
- serious burns (over 10%)
- unconsciousness caused by a head injury or asphyxia;
- any other injury needing admittance to hospital for more than 24 hours.
- Hypothermia

COSHH = Control Of Substances Hazardous to Health Regulations

Requirements of the employer

- ✓ Prevent or reduce employees' exposure to things and substances that are hazardous (unsafe/harmful) to their health
- ✓ Some of these substances can cause short or long-term illness such as cancer, asthma, skin problems and liver damage

Requirements of the employee

- ✓ Attend training sessions
- ✓ Carefully follow instructions for using substances



These substances include:

Cleaning chemicals
Fumes (machinery, cooking processes, vehicles)
Dusts and powders (icing sugar, flour, ground nuts)
Vapours (cleaning chemicals, machinery)
Gases (cookers)
Biological agents (pests and their waste products, moulds, bacteria)

COSHH = Control Of Substances Hazardous to Health Regulations



Long-term health hazard

Problems arising from vapours/fumes/dust can be short term or long term. Some can be carcinogenic (cancer causing) or can cause problems with respiration which can cause damage to organs



Danger to environment

An environmental hazard is chemicals that are toxic to aquatic wildlife.



Corrosive

The corrosive sign means the substance can cause burns or damage to the skin tissue or other material/surfaces



Toxic/danger

A skull and cross bone sign informs of poison or severe toxic effect



Flammable

Flammable substance or materials are likely to self-ignite when exposed to the elements.

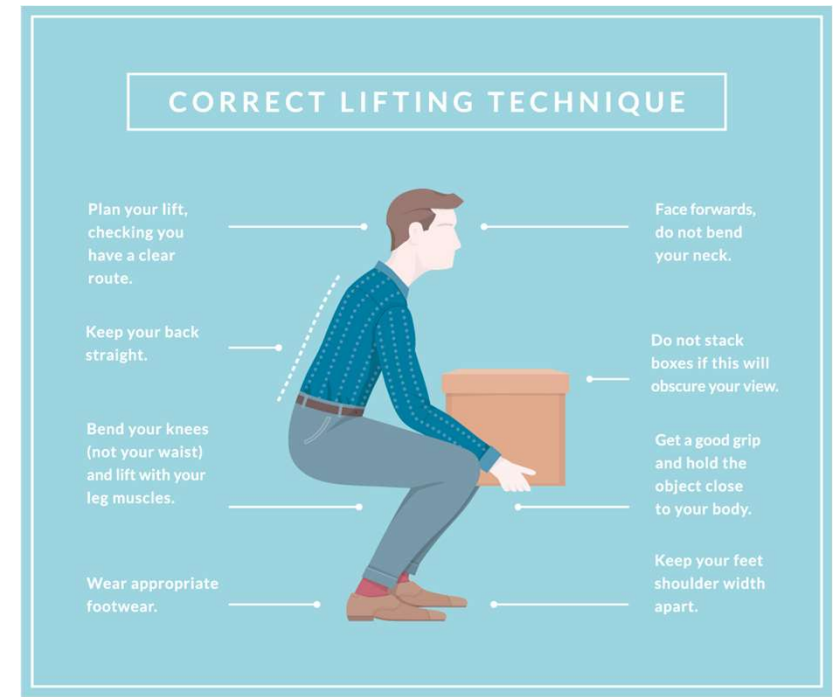
MHOR = Manual Handling Operations Regulations

Requirements of the employer

- ✓ Avoid risky manual handling operations if at all possible
- ✓ Assess any handling operations that cannot be avoided
- ✓ Reduce the risk of injury as far as possible
- ✓ Store heavy equipment so that it is easily accessible

Requirements of the employee

- ✓ Attend training sessions on how to lift and handle loads
- ✓ Be aware of your own strengths and weaknesses
- ✓ Do not take unnecessary risks
- ✓ Assess the load before you attempt to lift or move it
- ✓ Follow the advice on lifting heavy and large objects



Lifting When handling boxes, cartons and trays, there is a correct way to lift:

- always keep your back straight when lifting
- bend your knees and use the strength in your arms
- never reach forward
- keep the item close to your body and make sure you hold the item firmly
- never attempt to carry items that are too heavy – always get help.

PPER = Personal Protective Equipment (PPE) at Work Regulations (PPER)

Requirements of the employer

- ✓ Provide employees with appropriate PPE where it is needed
- ✓ Train employees so they understand the importance of PPE
- ✓ Put signs up to remind employees to wear PPE

Requirements of the employee

- ✓ Attend training sessions on the importance of and how to wear PPE
- ✓ Wear PPE as instructed by your employer (chefs whites, gloves when working with chilled/frozen foods, protective footwear, mask and gloves when using cleaning chemicals, chain mail when using sharp knives in butchery)

PPE can include:

- gloves to protect hands from cleaning materials and metallic-style gloves to be used when cutting meat
- goggles to prevent eyes being splashed with chemicals
- face masks to prevent inhalation of any chemical or powder
- long sleeves to prevent contact with skin on arms
- waterproof aprons to be worn on top of clothing.



Risks and Control Measures

Hazard – something that could cause harm to someone's health or physically injure them

Risk – how likely it is that someone may be harmed or injured by a hazard (high/low)

Risk Assessment – a process that is used to identify and evaluate the level of risk involved in an activity, situation or use of an object

Control Measure – an activity or action that is put in place to prevent or reduce the risk of a hazard causing harm or injury.

Risks and Control Measures for **front of house** employees

Potential hazards and risks to personal health, safety and security

Type of risk	Example of risk/s	Employers should:	Employees should:
Health hazards and risks	Muscle strain and back problems from lifting and carrying heavy items, moving tables, chairs, etc	Provide employees with relevant training Provide equipment for moving objects	Follow the MHER guidance and ask for help/ assistance when needed
Safety risks	Slips, trips and falls	Make sure work areas are well lit, free from obstructions and floors are in a good condition	Wear non-slip shoes Wipe up any spills when they happen
Security risks	Physically and verbally aggressive customers Theft of personal belongings	Employ security staff and enable other staff to contact them quickly Provide staff with a secure place to keep personal belongings	Call for assistance if and when needed when dealing with difficult customers Lock personal belongings in a secure place when working

Risks and Control Measures for **back of house** employees

Potential hazards and risks to personal health, safety and security

Type of risk	Example of risk/s	Employers should:	Employees should:
Health risks	<p>Exposure to cleaning chemicals</p> <p>Repetitive strain conditions (wrists and hands from mixing, chopping and kneading)</p>	<p>Make sure the kitchen is well ventilated and has air conditioning</p> <p>Provide equipment, e.g. mixing, kneading, cutting, slicing machines to reduce repetitive manual actions</p>	<p>Follow COSHH guidance for using and storing chemicals</p> <p>Wear PPE</p> <p>Use equipment that is provided for them</p>
Safety risks	<p>Cuts and abrasions</p> <p>Burns and scalds</p>	<p>Provide employees with PPE equipment/clothing</p> <p>Train employees to use all equipment correctly</p> <p>Train employees in first aid in the case of an injury</p>	<p>Carry and use knives safely</p> <p>Handle electrical equipment with dry hands</p> <p>Use insulated oven cloths to handle hot baking trays and pan handles</p>

Risk Assessment

When you carry out a risk assessment you need to think about how likely it is to happen and what the consequence might be if it did. E.g. A spillage is very likely to happen in a restaurant kitchen.

	probability		Severity
1	Not very likely to happen	1	If it did happen the harm would be minimal and could be dealt with by an untrained person (e.g. might just need a plaster)
2	1 in 4 (25%) chance	2	Might need to visit a professional for advice or treatment (e.g. might need stitches)
3	2 in 4 (50%) chance	3	Would take a few weeks to heal, but not a serious injury.
4	3 in 4 (75%) chance	4	Could cause serious injury or damage, but would eventually be resolved (e.g. broken leg)
5	Very likely to happen	5	The result could be permanent disability, destruction of a building or in extreme cases, death.

Levels of risk

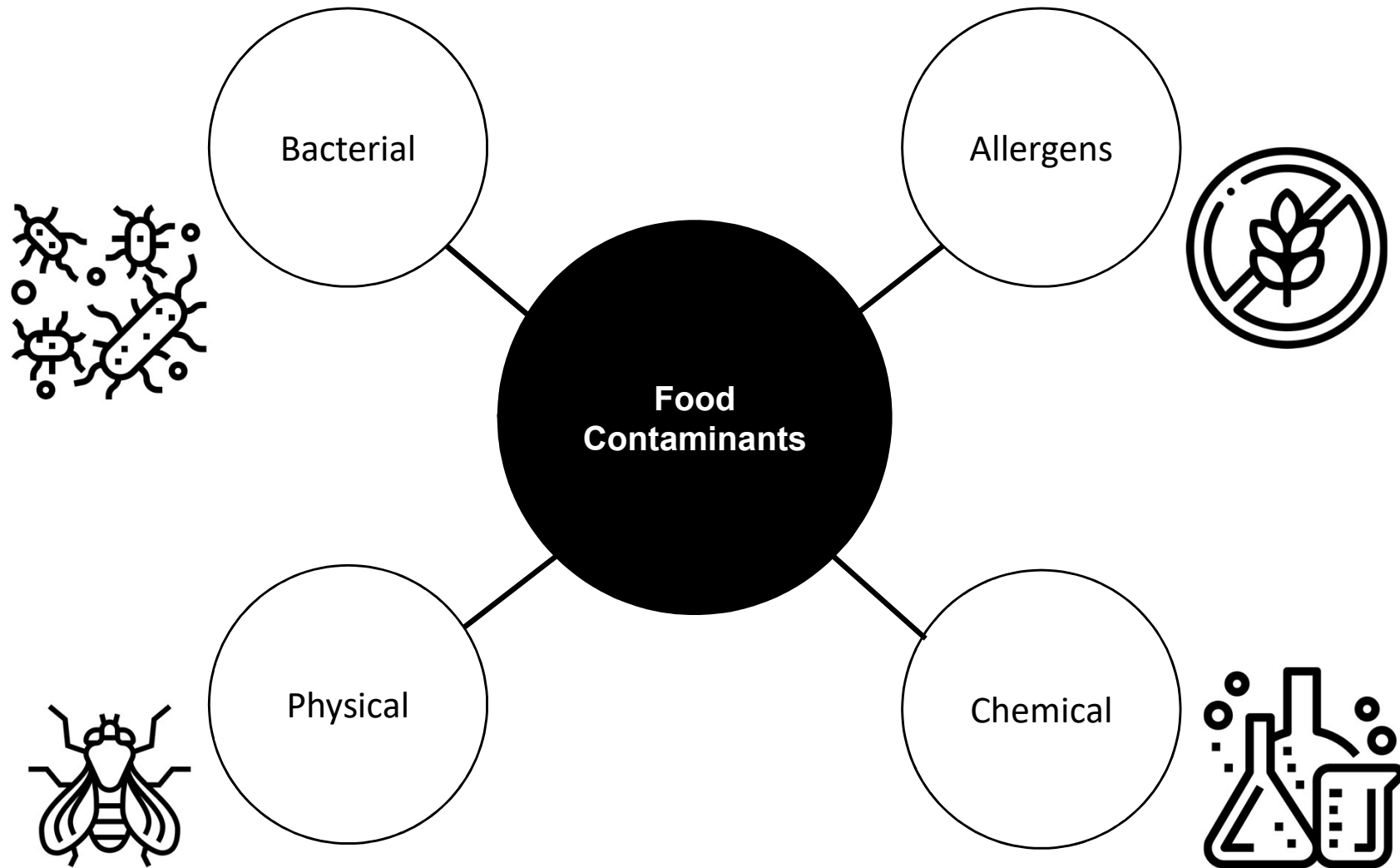
A risk assessment should be carried out to identify risks. It is a way of identifying things that could cause harm to people in the workplace. All workplaces must have the necessary risk assessments in place. In a business there are five steps to risk assessment:

1. Identify the hazard.
2. Decide who might be harmed and how.
3. Evaluate the risks and decide on the controls (precautions).
4. Record the findings and implement them.
5. Review the assessment and update if necessary.

Control measures for employees

Hazard	Control
Stress, fatigue	Employees need to be monitored closely and adequate rest breaks should be allocated
Using equipment	The instruction manual needs to be followed, with training given if needed
Trip hazards	Floors need to be clutter free; exits and entrances need to be clear
Food and drink spillages	Clear up spillages immediately and use warning signs
Using hazardous chemicals	Wear protective clothing where necessary; training should be given on the use of chemicals; chemicals should be stored correctly; COSHH regulations need to be followed
Inadequate clothing worn	The correct PPE should be worn at all times; wear aprons that are done up correctly; shoe laces should be tied up
Using electrical appliances	The equipment should be maintained and cleaned regularly; training should be given if necessary; it should be PAT tested regularly by a qualified electrician
Moving and lifting objects	Wear the correct PPE; training on safe lifting techniques should be given
Fire and explosion	Under the Fire Safety Order 2005, employers must ensure there is a low risk of fire and explosion by: <ul style="list-style-type: none"> • having fire alarms and making sure they are tested regularly • making sure escape routes are clear and adequately signed • having suitable equipment such as fire extinguishers available
Bullying and harassment	Protocols and policies should be in place to ensure that this does not happen; there should be an open culture if anyone needs to report it
Injuries	Kitchens and restaurants can be dangerous places – there should be a first aid kit and a trained first aider
Inadequate lighting	Lighting must be bright enough to work safely in; if a light is broken it should be fixed

1.4.1 Food related causes of ill health



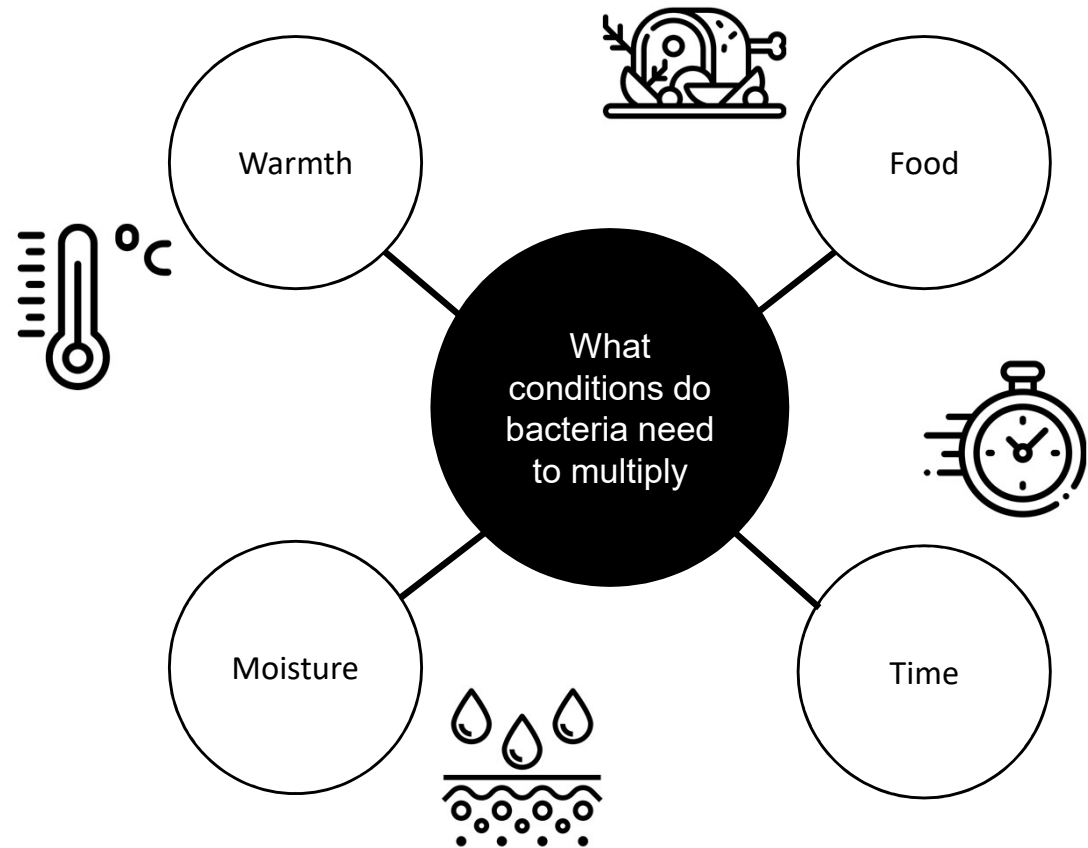
1.4.1 Food related causes of ill health

Bacteria

Some bacteria have to be **INSIDE** your body to make you ill. These are consumed in the food.

Once inside you, the bacteria attack your body causing illness, some such as Salmonella cling to the gut wall preventing absorption of water and nutrients- this type take hours even days to colonise the gut so symptoms may not show for a few days.

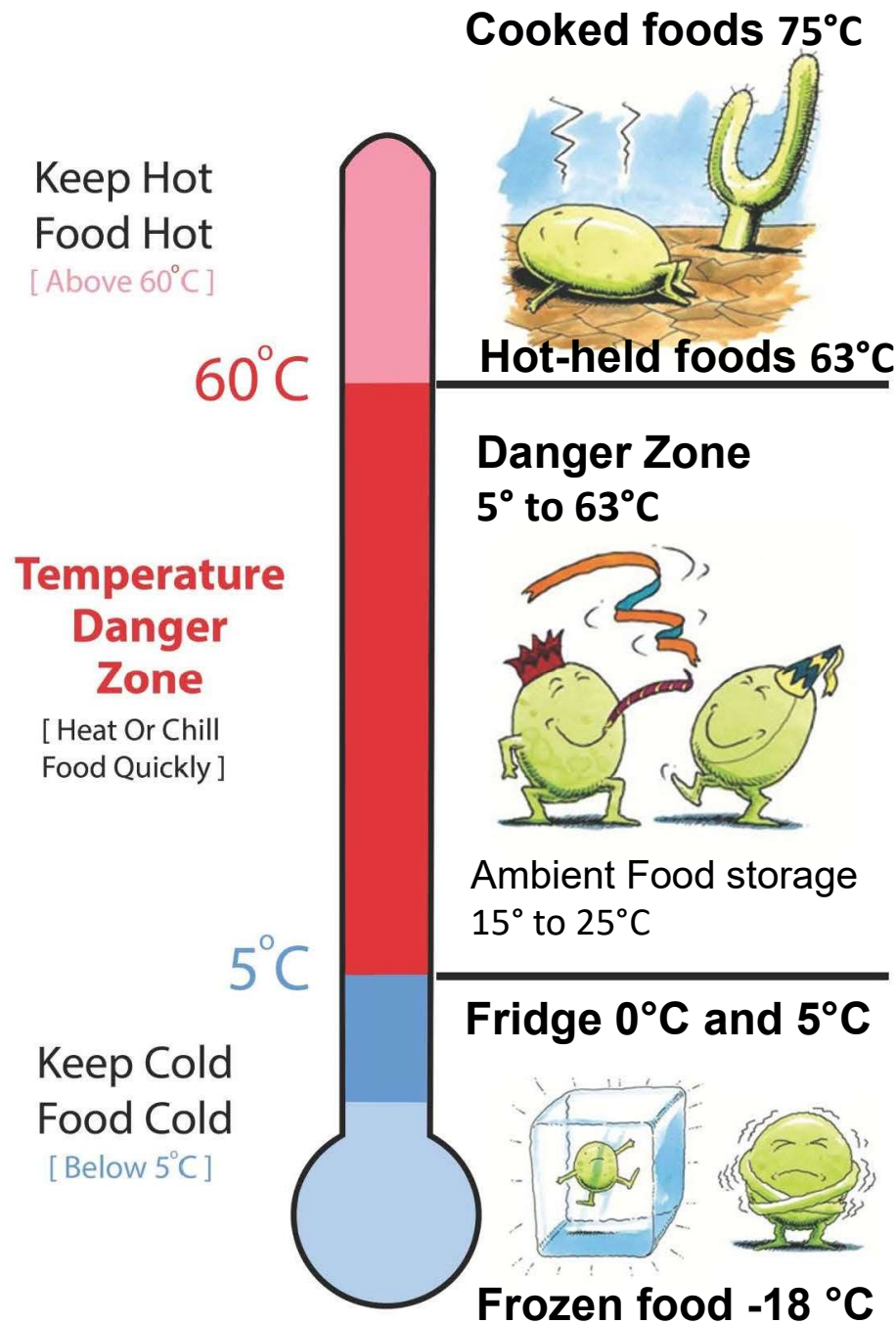
Some produce a **TOXIN** (poison) on the food which makes you ill when you eat it. Toxins act on the body rapidly so this type make you ill within minutes to hours of eating them.



Sources of food poisoning bacteria

- People/sewage
- Raw food
- Insects
- Rodents
- Soil/dust
- Refuse/waste
- Animals/birds
- Contaminated packaging

Pathogenic Bacteria



Food poisoning symptoms

Visible:

- Diarrhoea
- pale in colour
- vomiting
- signs of dehydration
- confusion
- chills/shivering
- bloating/swelling
- Sweating
- fatigue

Non-visible:

- stomach pains
- muscle contractions
- headaches
- feeling sick/nausea
- flu like symptoms
- (dizziness/light-headed)
- loss of appetite
- fatigue
- joint/muscle pains
- Chills
- weakness

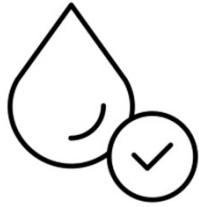


Common types of food poisoning

Type of food poisoning	Foods it is found in
Campylobacter	Poultry, raw meat, unpasteurised milk products, water
Salmonella	Raw meat, unwashed vegetables, eggs undercooked chicken
E. coli	beef, chicken, lamb, unpasteurised milk cheese, spinach, salads, raw veg
Clostridium perfringens	Undercooked meats, large volumes of food, casseroles, gravies

Type of food poisoning	Foods it is found in
Listeria	Raw foods, fridge temperatures, unpasteurised milk, cheese, smoked salmon, pate, raw sprouts
Bacillus cereus	Rice, leftover food, foods at room temperature, sauces and soups
Staphylococcus aureus	Foods made by hand and no additional cooking. Salads, ham, tuna, chicken, cream pastries, sandwiches, dairy products, meat, eggs

1.4.3 Preventative control measures of food-induced ill health



The 4C's for Food Safety

CLEAN

Personal Hygiene

Wash hands

Cover cuts with a blue plaster

Nails clean and short

Tie hair back

No jewellery

Wear a clean apron

Do not handle food if you have an upset stomach

Do not cough or sneeze near food

Kitchen Hygiene

Clean and sanitise surfaces

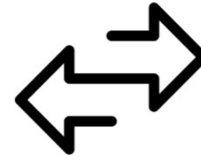
Equipment must be cleaned thoroughly

Cupboards, fridges and freezers must be cleaned regularly

Always use a clean spoon each time you taste food

Lids on

Ensure pest infestations are dealt with immediately



CROSS CONTAMINATION

Equipment used on raw foods **MUST** be cleaned thoroughly before being used on other food.

Clean and sanitise surface between uses.

Wash fruit and vegetables to remove dirt or soil.

Wash hands after touching raw meat and fish.

Use colour coded chopping boards:

Green - Salad and veg

Red - Raw Meat

Yellow - Cooked Meat

Blue - Fish

White - Dairy and bakery

1.4.3 Preventative control measures of food-induced ill health



CHILL

The 4C's for Food Safety

Temperature of the fridge should be between **below 5 °C**.

Never put hot food in the fridge, as it will raise the temperature of the fridge.

Do not overload the fridge, air needs to circulate

Throw away food that is past its use by date.

Always store **raw** meat and fish on the **bottom** shelf

Cooked meat should be on the **top** shelf.

Keep food covered or wrapped to prevent cross- contamination.

Temperature of a freezer should be **-18 °C**.



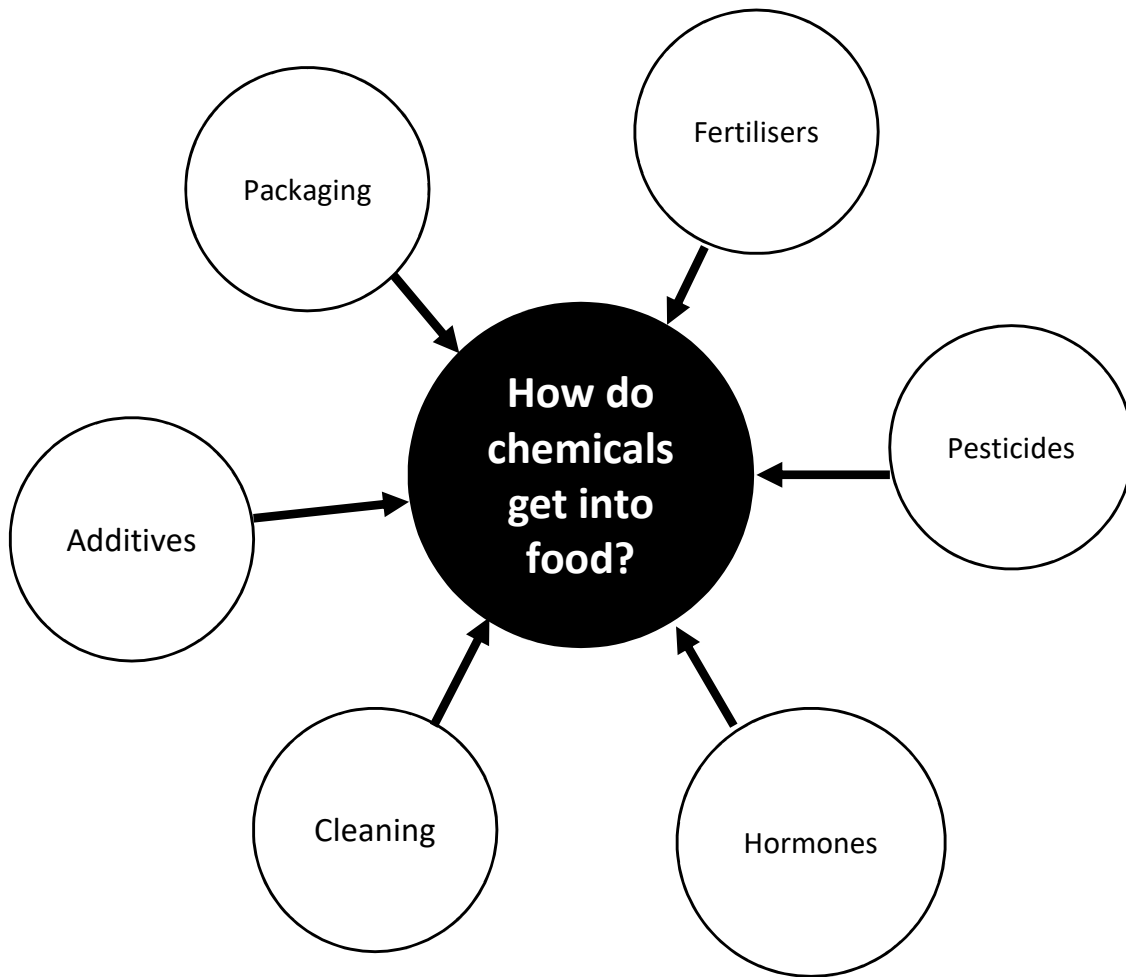
COOK

Use a temperature probe to ensure food is cooked.

To kill bacteria food must reach at least **75°C**.

Food related causes of ill health

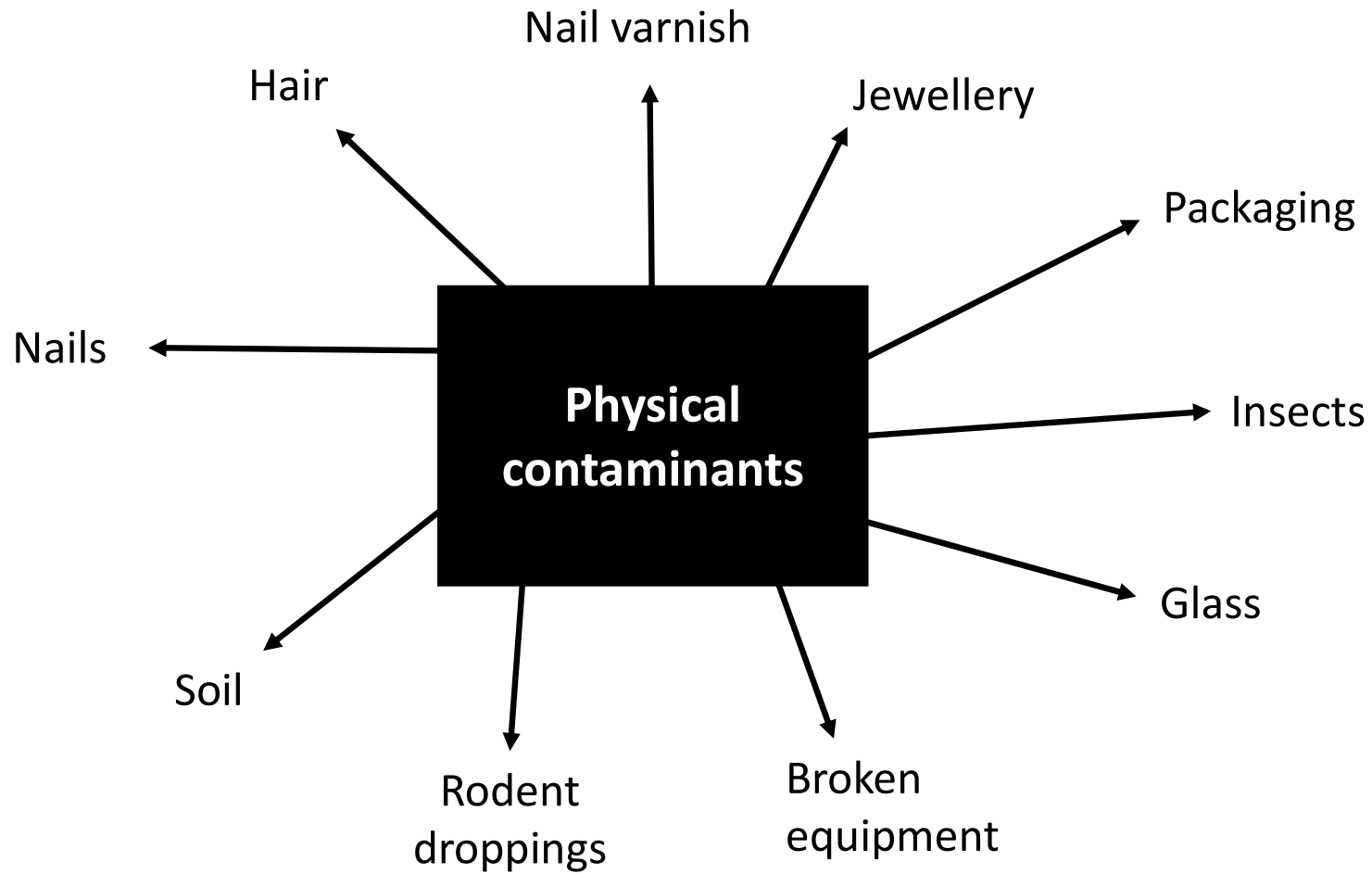
Chemicals



Chemical	Description
Hormones	Animals can be injected with growth hormones and antibiotics to give larger muscle development and higher milk production
Pesticides	Crops are sprayed with herbicides and pesticides to prevent being eaten by insects. Herbicides kill weeds and unwanted plants in crop
Fertilizer	Plants are fertilized to keep the soil fertile and to give a higher yield of crops for the farmer. NOT IN ORGANIC FERTILIZERS.
Packaging	During storage, chemicals can migrate from the packaging into the food if they are stored badly.
Additives	Additives in food can be chemical or natural. Give food characteristics like long shelf-life or colour or flavour. Used to stop crystallization of sugars, to soften foods, etc
Cleaning	Foods and equipment are cleaned with chemicals which may stay on the food afterwards. some industrial cleaning chemicals are harsh on machines

Food related causes of ill health

Physical contaminants



Allergies and intolerances

The difference between intolerances and allergies

Food intolerances are more common than food allergies. The symptoms of food intolerance tend to come on more slowly, often many hours after eating the problem food. Typical symptoms include bloating and stomach cramps.

A food allergy is a rapid and potentially serious response to a food by your immune system. It can trigger classic allergy symptoms such as a rash, wheezing and itching.

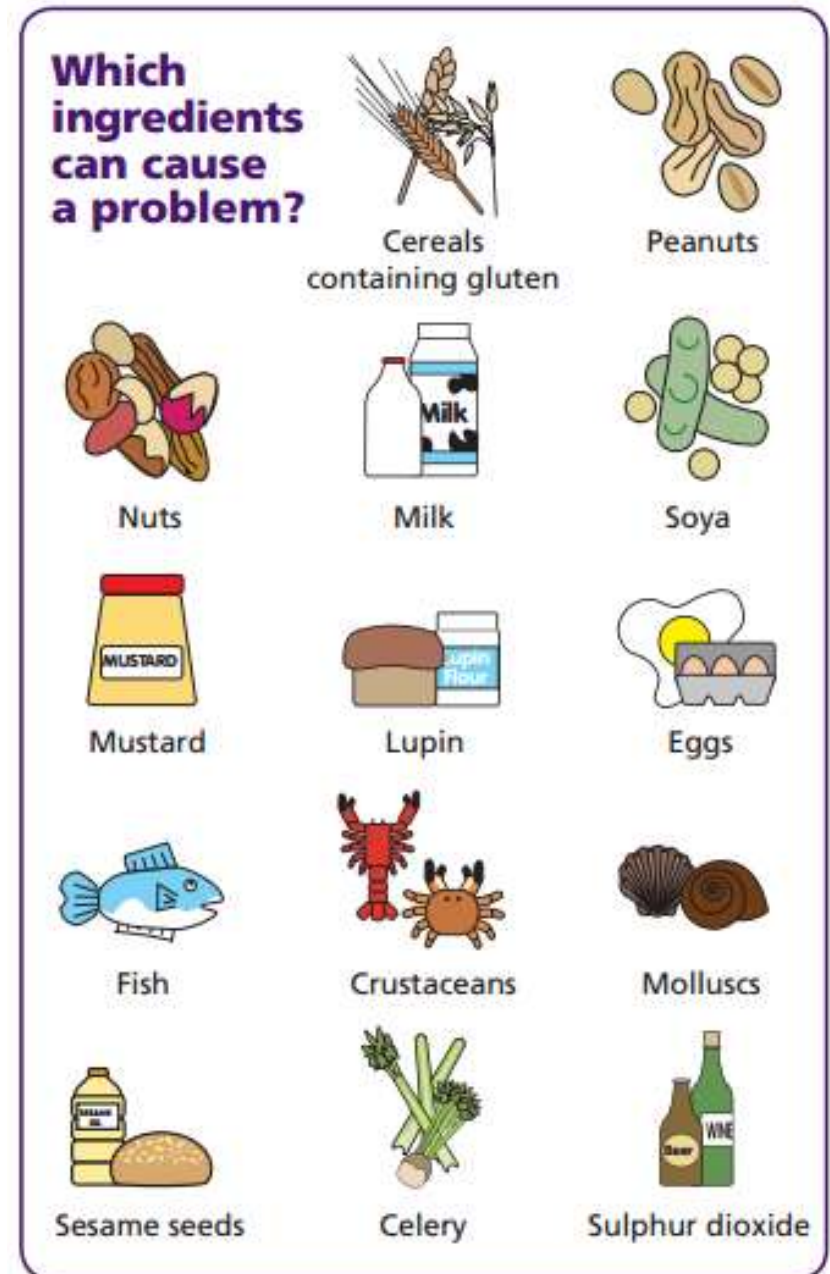
Reasons for food intolerance

Some people react to certain foods and eating them may cause uncomfortable symptoms or, in rare cases, a severe illness.

Food intolerance is more common in children than in adults. Children often grow out of the intolerance before they go to school.

Common intolerances are: lactose, gluten, eggs, fruits

14 major allergens



Symptoms of food allergies

A food allergy usually occurs between a few minutes and a few hours after eating a particular food.

Visible:

anaphylactic shock
bloating
breathing difficulties
diarrhoea
facial swelling
rash
coughing

Non-visible:

constipation
feeling sick / nausea
stomach-ache / cramps
Dry, itchy tongue and throat

Anaphylaxis

Anaphylaxis is most commonly caused by food allergies, but can also be caused by other things, such as insect bites and drug allergies.

Peanuts, milk, eggs and fish are the most common foods to cause anaphylaxis in the UK.

Feeling lightheaded or faint.

Fast, shallow breathing, wheezing

A fast heartbeat

Clammy skin

Confusion and anxiety

Collapsing or losing consciousness

Allergens in hospitality and catering

All menu items must be marked with any of the 14 major allergens they contain

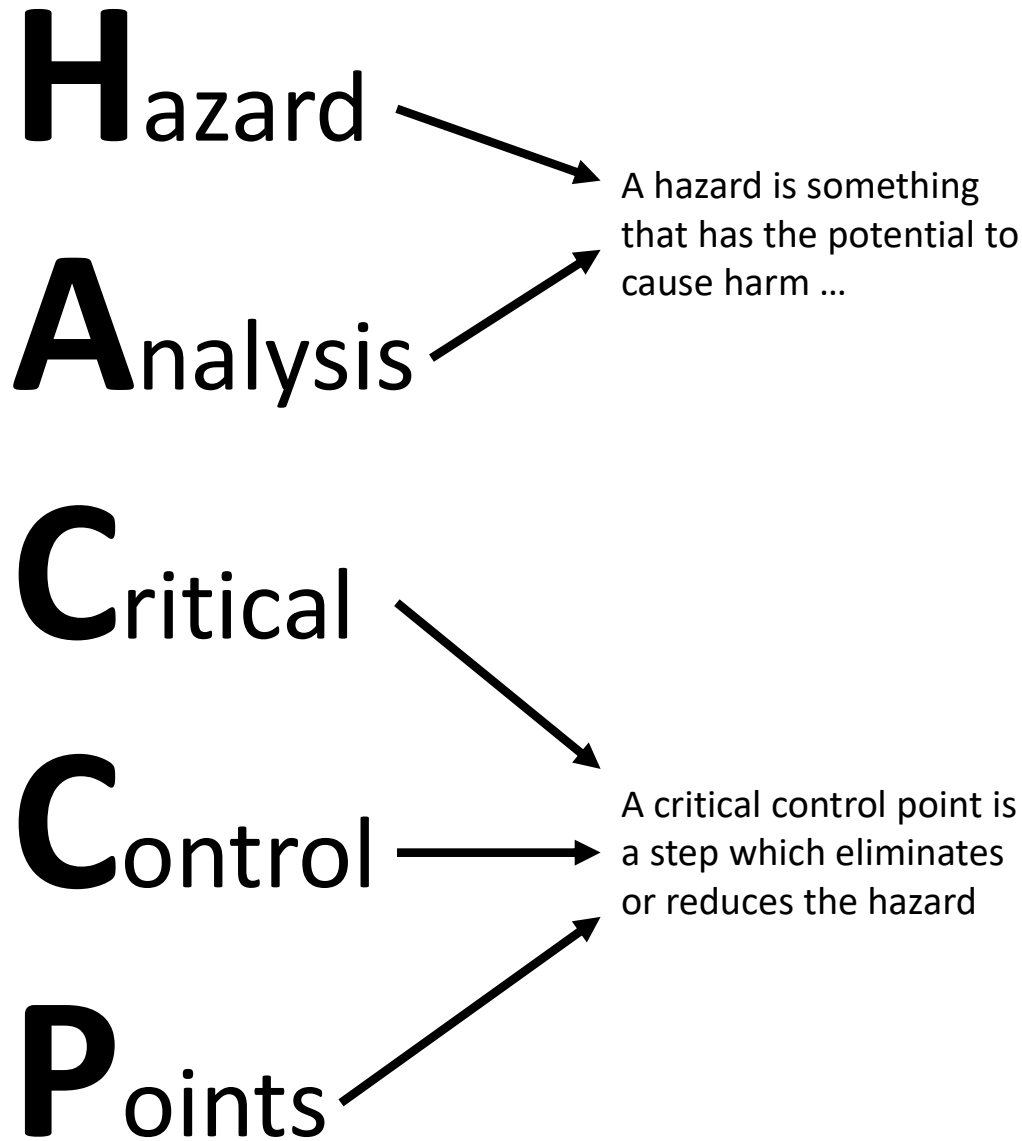
Wait staff should have a good knowledge of which allergens are present

When using pre-prepared ingredients, kitchen staff should check the labels carefully to identify any allergens, e.g. Peanut flour used to thicken the sauce in a takeaway curry or milk present in a minor ingredient in a pre-packed or catered food

Food Intolerances

Intolerance	Description	Menu planning
Lactose intolerance	<p>Avoid milk and milk products</p> <p>Experience nausea, bloating, pain in the abdomen and diarrhoea</p> <p>Eat lactose-reduced products</p> <p>Eat goats cheese, soya milk, feta cheese, rice milk</p> <p>In the UK, Ireland, 5% of the population is affected</p>	<p>When planning dishes, read ingredients carefully.</p> <p>Even foods like margarine can contain milk derivatives which could make the customer ill</p> <p>Soya and vegetable products replace milk in a number of foods, milk, cream, cheese, yoghurt can all be made from soya</p>
Coeliac/gluten intolerance	<p>Intolerant to the protein gluten</p> <p>Causes diarrhoea, anaemia, weight loss</p> <p>Gluten is found in many cereals plants primarily wheat, rye, barley and some oats</p> <p>Avoid pasta, bread, cereals, flour-based foods</p> <p>Gluten-free products are available</p>	<p>People with coeliac disease must avoid foods that contain gluten; for example, bread, cakes and biscuits.</p> <p>Many foods have small amounts of wheat, barley or rye added, so people with coeliac disease must check food labels carefully.</p> <p>Rice, maize and potatoes do not contain gluten so are good sources of starchy carbohydrate, and gluten-free versions of foods, such as bread and pasta, are available.</p>

1.3.2 HACCP system



Type of hazard	Example
Biological	Salmonella in chicken
Chemical	Contamination from cleaning materials, e.g. bleach
Physical	Damaged packaging, glass found in food
Allergenic	14 major allergens

Food companies need to:

- Analyse the hazards to food safety
- Assess the level of risk from each hazard
- Decide the most critical points that require controls
- Implement appropriate controls
- Establish a monitoring system
- Set up procedures to correct problems (corrective action)
- Review the system when operations change

HACCP system

Operation stage	Hazard Analysis	Critical Control Point
1. Purchase	Food may be contaminated: biological, chemical, physical, allergenic	Check suppliers, food production, cleanliness and traceability HACCP documents Make sure allergy information is correct
2. Delivery	Food may not be fresh	Supplier have been visited to check what HACCP they have in place
	Temperature of the delivery may be incorrect Fridge below 5°C Freezer -18°C	Check temperature of delivery on arrival Delivery not accepted if incorrect
	Food packaging is damaged	Visual checks of deliveries, damaged goods to accepted
3. Storage of food	Cold storage temperatures may be too high Fridge below 5°C Freezer -18°C	Fridge and freezer temperatures regularly checked and recorded
	Dry foods may become contaminated by pests	Ingredients stored in a cool, well-ventilated cupboard in a covered, pest-proof container Stored foods regularly checked for signs of pests
	Potatoes may become green and develop a natural poison when stored in the light	Stored foods regularly checked and older stocks used up first Potatoes are stored in a dark room or inside a sack to prevent light getting in
	Cross contamination of food	Store raw meat on the bottom shelf of the fridge away from ready to eat foods

HACCP system

Operation stage	Hazard Analysis	Critical Control Point
4. Food preparation	High risk foods are left in the danger zone for too long	Food is prepared and then stored in the fridge until ready to be cooked
	Cross contamination	Use colour coded chopping boards and knives Clean down surfaces after preparing raw meat/fish
	Physical or bacterial contamination from staff	All staff must hold a food hygiene certificate Make sure equipment and food production areas are clean Staff following uniform policy
5. Cooking	Food is not cooked all the way through	Timer is used to ensure food is cooked for the correct time Temperature probe is used to ensure the internal temperature of the food has reached 75°C
6. Cooling and hot holding	Bacteria grow and cause food poisoning	Cooked food should be kept above 63°C in a hot cabinet Regularly check the temperature of the food Cool food as fast as possible (blast chiller) Don't leave food out at room temperature
7. Reheating	Bacteria could multiply in heat	Food probes must be used to measure core temperature of reheated food has reached 75°C Food is only reheated once
8. Chilled storage	Growth of food poisoning bacteria	Keep high risk food at temperatures below 5°C Rotate stock
	Cross contamination	Store raw meat on the bottom shelf

HACCP system

Operation stage	Hazard Analysis	Critical Control Point
9. Serving	Bacteria could spread from the food handlers to the cooked food	Food served with metal tongs, not hands
	Cross contamination of allergens	Each dish served with different utensils Food with any of the 14 major allergens kept separate

Environmental Health Officer (EHO) – roles and responsibilities

The role of the Environmental Health Officer

The role of the Environmental Health Officer (EHO) is to protect the health and safety of the public. They are appointed by local authorities throughout the UK. In the hospitality and catering industry, they are responsible for enforcing the laws linked to food safety. They inspect all businesses where food is prepared and served to members of the public, advise on safer ways of working and can act as enforcers if food safety laws are broken.

- Conducting inspections
- Investigating complaints
- Making recommendations for improvements
- Issuing food hygiene ratings
- Closing premises
- Giving evidence in court



Hygiene ratings

When an inspection has been carried out, the EHO will give the business a food hygiene rating. The ratings are published on the Food Standards Agency website as well as on stickers displayed at the business. A rating of 5, or very good, represents the highest standard of food hygiene.

EHO inspections

The EHO can carry out an inspection of any hospitality and catering premise at any time during business hours – they do not need to make an appointment. During an inspection, the EHO will check to make sure that:

- the premises are clean
- equipment is safe to use
- pest control measures are in place
- waste is disposed properly
- all food handlers have had food hygiene and safety training
- all food is stored and cooked correctly
- all food has best-before and use-by dates
- there is a HACCP plan to control food hazards and risks.

The EHO is allowed to:

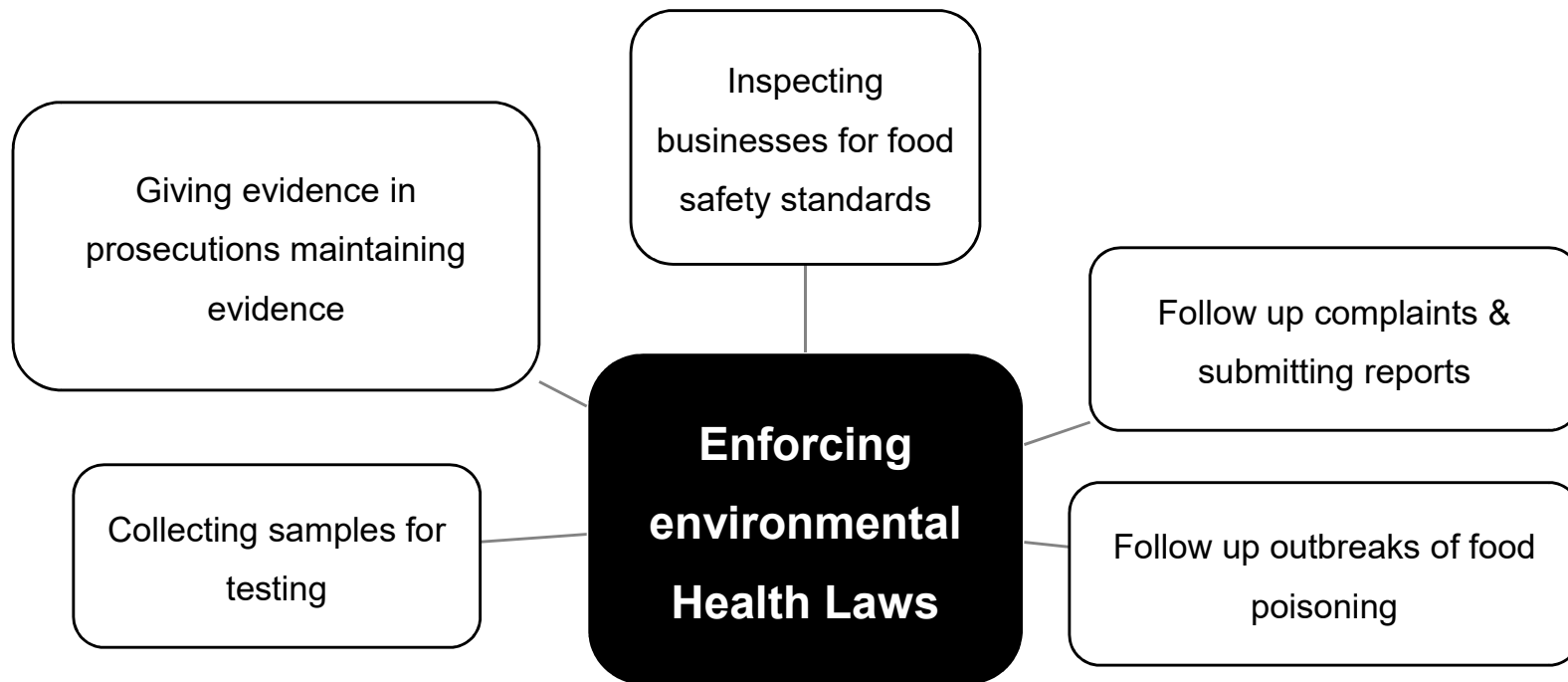
- take photographs of the premises
- take food samples for analysis
- check all record books, including fridge and freezer temperatures, cleaning schedules and staff training
- offer advice on improving food hygiene and safety in the business.

EHO and the law

If the EHO discovers problems with the food safety and hygiene in the premise, they are allowed by law to:

- remove any food that may be hazardous so it can't be sold
- tell the owners to improve hygiene and safety within a set time and then come back and re-inspect
- close the premises if there is a risk to health of the public
- give evidence in a court of law if the owners are prosecuted for breaking food hygiene and safety laws.

EHO roles in the hospitality and catering industry



Legislation enforced by EHOs

The Food Safety Act (General Food Hygiene) Regulations

Ensures food producers **HANDLE** all food hygienically.

The Food Composition Regulations

Specifies what ingredients **CAN** or **CANNOT** be used in the manufacture of foods, e.g. bread, breakfast cereals and use of additives

The Food Safety Act (Temperature Control) Regulations

Temperatures at which to store or hold food.

- Freezers from -18°C to -24°C
- Chillers from 3°C to 8°C
- Fridges from 1°C to 5°C
- Cooked core temperature at 75°C or above
- Hot holding above 63°C

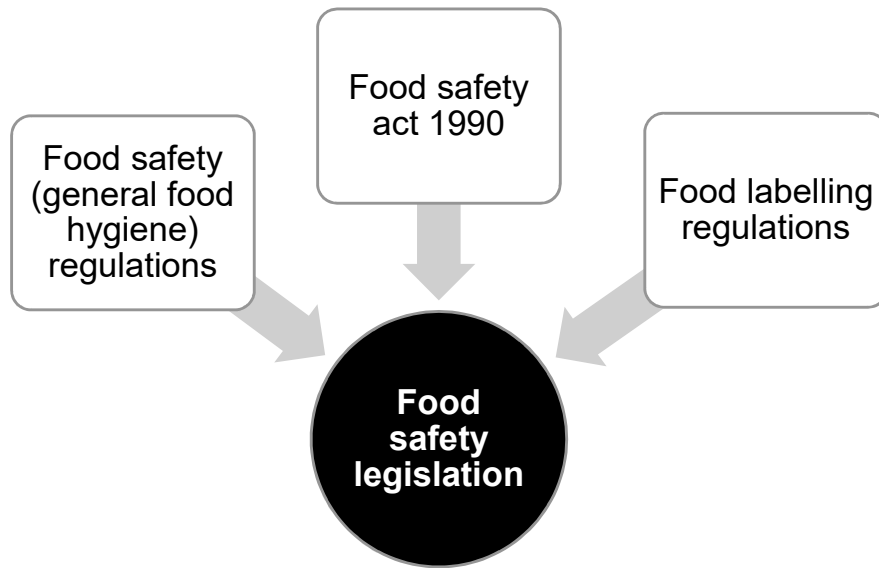
The Food Safety Act

Food safety from the manufacturer or producer to the point of sale. Might involve different companies or premises e.g. suppliers, manufacturers or kitchens, shops or restaurants.

The three main areas EHOs inspect are:

Food premises must:	Food handlers must:	Food hygiene practices
<p>Be well maintained</p> <p>Be regularly checked</p> <p>Have lockers for employees</p> <p>Have hand wash facilities</p> <p>Have clean cloakroom and toilet facilities</p> <p>Have first aid available</p> <p>Have clean storage areas</p> <p>Have temperature controlled fridges and freezers</p> <p>Have equipment that is clean and in good working order</p> <p>Be free from pets and pests</p>	<p>Have regular training in food safety</p> <p>Be dressed in clean 'whites' or other uniform</p> <p>Have hair tied back (and ideally wear a hat)</p> <p>Have short, clean nails – no nail varnish or jewellery</p> <p>Be in good health (no upset stomachs)</p> <p>Have 'good' habits, e.g. no coughing or sneezing over food</p> <p>Wash their hands after handling raw meat, after blowing nose, after going to the toilet, etc</p> <p>Cuts should be covered with a blue plaster</p>	<p>Food deliveries should be checked thoroughly</p> <p>Food should be labelled and stored correctly (in freezers, chillers, fridges and dry stores)</p> <p>Food should be rotated (first in first out)</p> <p>Care should be taken with temperature control in the kitchen (i.e. food kept out of the danger zone of 5-63°C)</p> <p>Food should be prepared quickly and as close to cooking time as possible</p> <p>Hot food should be maintained at above 63°C</p> <p>The core temperature of cooked food needs to be at least 75°C</p> <p>Chilled food should be stored below 5°C</p> <p>Washing up should be done in hot soapy water if there is no dishwasher available</p> <p>Waste should be disposed of safely.</p>

Food safety legislation



Food Safety Act 1990

Food businesses:

Must ensure that the food served or sold is of the nature, substance or quality which consumers would expect, e.g.

Nature – pollock rather than cod

Substance – contains foreign material including glass or packaging

Quality – mouldy bread or stale cake

Ensure that the food is labelled, advertised and presented in a way that is not false or misleading, e.g. photos on menus that do not look like the dishes served to customers.

Food Safety (General Food Hygiene)

Regulations 1995

- Food premises
- Personal hygiene of staff
- Hygienic practices

make sure food is supplied or sold in a hygienic way

identify food safety hazards

know which steps in your activities are critical for food safety

ensure safety controls are in place, maintained and reviewed

Food Labelling Regulations 2006

Pre-packaged foods have information on their labels which can help consumers choose between different foods, brands, or flavours.

Much of the information must be provided by law.

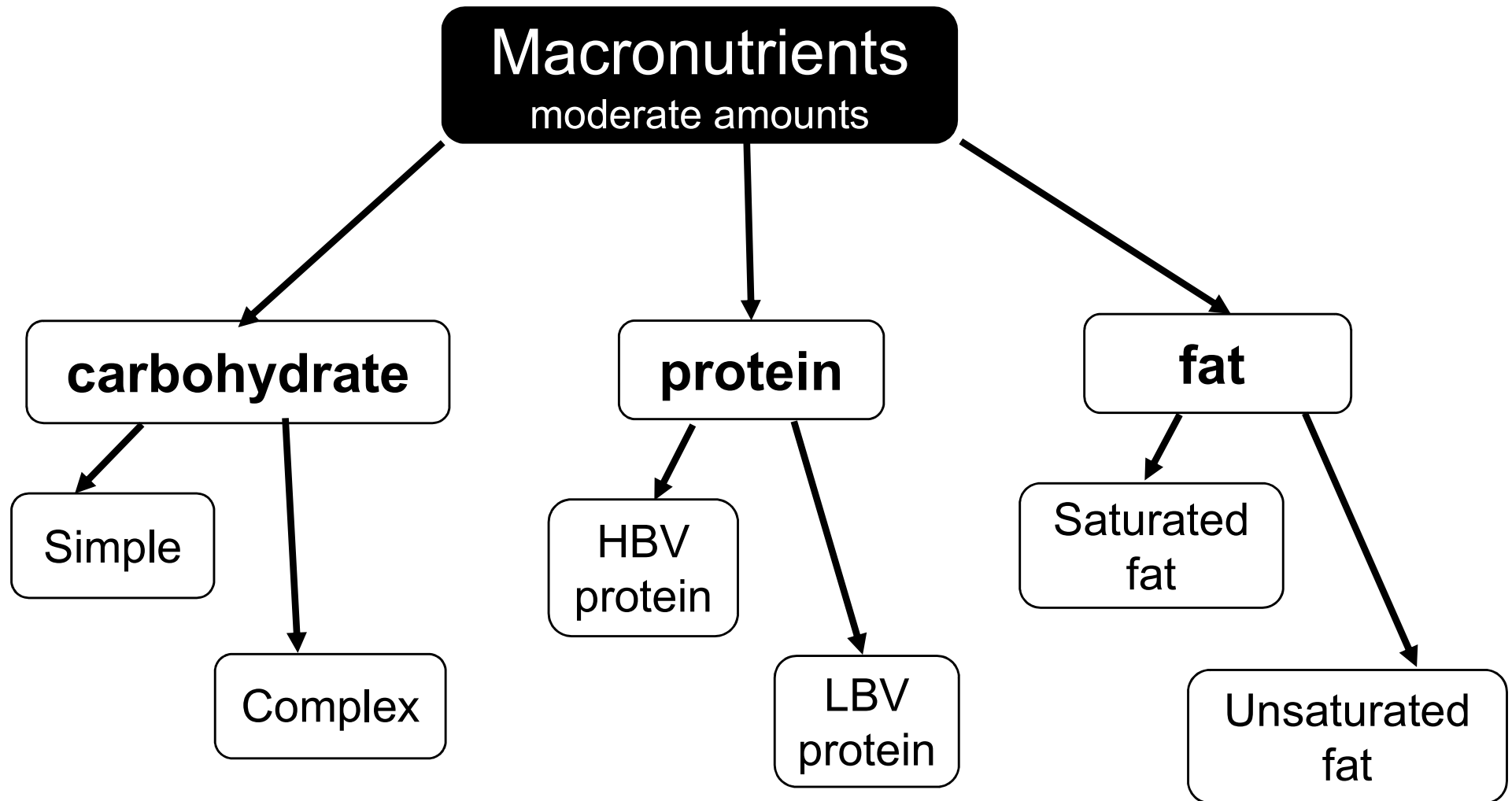
Additional information may also be provided, such as cooking instructions or serving suggestions.

In the UK, foods sold loose are currently exempt from many of the food labelling laws.

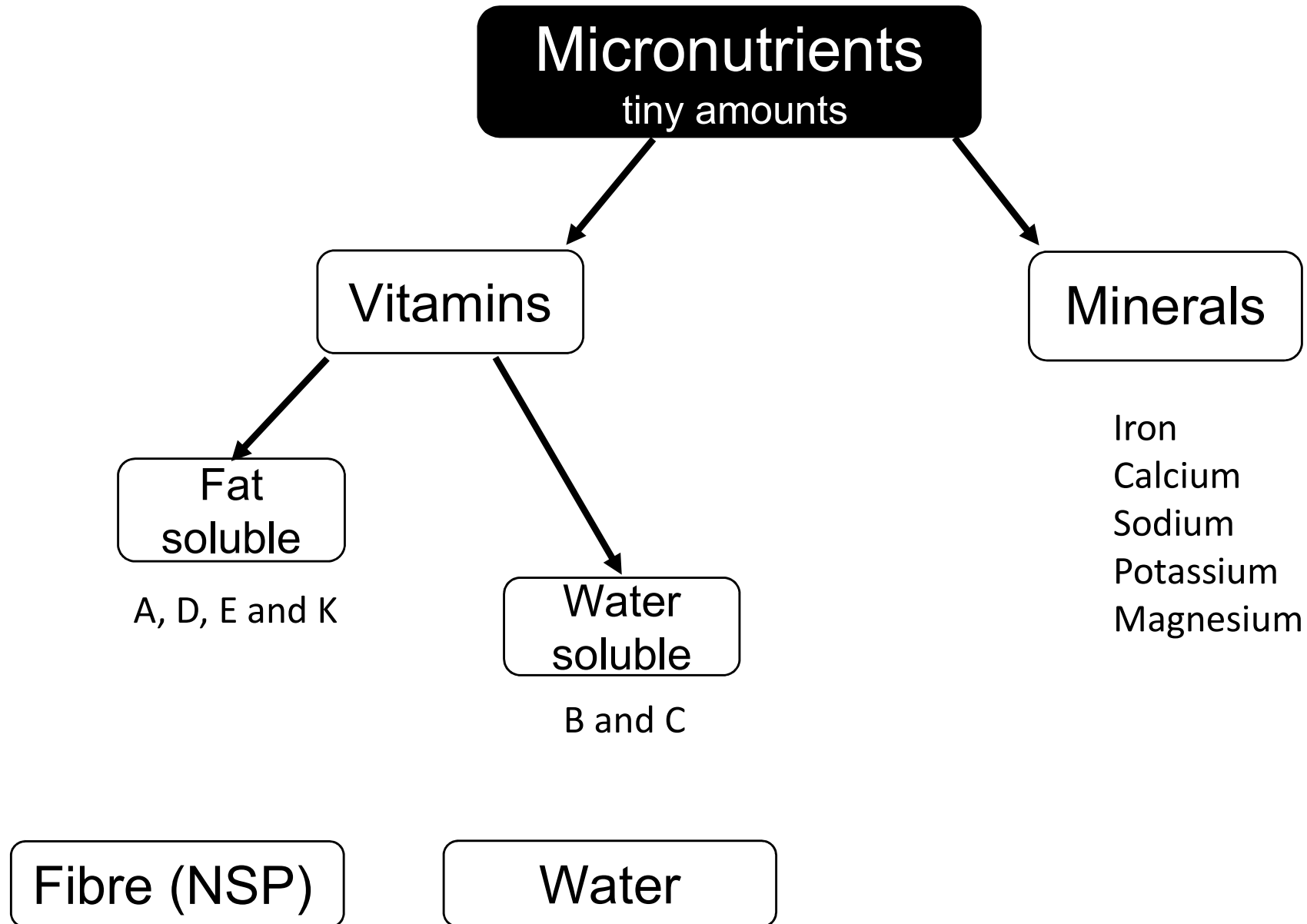
Information that must appear by law on food labels:

Information	Description
the name of the food	It is important that the name of the food must be clearly stated with a description if needed, and not be ambiguous or misleading.
weight or volume	The weight or volume of the food must be shown on the label. By comparing the weight with the price, consumers can make sure that they are getting value for money.
ingredient list	Ingredients are listed in order of weight, according to the amounts that were used to make the food, starting with the largest ingredient and ending with the smallest.
allergen information	Allergens must be listed in bold to highlight them.
genetically modified (GM) ingredients	The presence of genetically modified organisms (GMOs) or ingredients produced from GMOs must be indicated on the label
date mark and storage conditions	The label must say how long foods should be kept and how to store them. Following storage instructions can reduce the risk of food poisoning and help to make sure that it tastes and looks its best when it is eaten.
preparation instructions	Instructions on how to prepare and cook the food must be given on the label, if they are needed. These instructions should make sure that the food tastes its best and that it will be thoroughly heated to a core temperature of 72°C to help minimise the risk of food poisoning.
name and address of manufacturer, packer or seller	Consumers can then contact the manufacturer if they have a complaint about a product or if they wish to know more about it
place of origin	The label must show clearly where the food has come from if it would be misleading not to show it, for example, a tub of 'Greek Yogurt' which was made in France.
lot (or batch) mark	A lot mark is a code which is required by law to appear on the label. It helps to identify batches of food in the event that they need to be recalled by the manufacturer, packer or producer.
nutrition information	Nutritional information must be expressed per 100 g or per 100 ml, and it must be listed in the following specific order: <ul style="list-style-type: none"> • energy – stated in kilojoules (kJ) and kilocalories (kcal) per 100 g or 100 ml • fat • saturates • carbohydrate • sugars • fibre (not required by law) • protein • salt • vitamins and minerals – these must also be expressed as a percentage of the reference intake (RI).

2.1.1 Understanding the importance of nutrition



2.1.1 Understanding the importance of nutrition



A Healthy Balanced Diet

A healthy balance diet provides all the nutrients needed for healthy body functions and normal physical activity.

To help achieve a balanced diet the Government have put together some dietary guidelines. The Eatwell Guide and 8 Tips for Healthy Eating.

8 Tips for Healthy Eating

1. Base meals on starchy foods
2. Eat 5 portions of fruit & vegetables a day
3. Eat 2 portions of fish a week
4. Small amounts of saturated fat and sugar
5. Eat less salt
6. Drink plenty of water
7. Do not skip breakfast
8. Get active

Eatwell Guide

Use the Eatwell Guide to help you get a balance of healthier and more sustainable food. It shows how much of what you eat overall should come from each food group.

Check the label on packaged foods

Each serving (150g) contains

Energy	Fat	Saturates	Sugars	Salt
1046kJ 250kcal	3.0g	1.3g	34g	0.9g
	LOW	LOW	HIGH	MED
13%	4%	7%	38%	15%

of an adult's reference intake

Typical values (as sold) per 100g: 697kJ/ 167kcal

Choose foods lower in fat, salt and sugars

Eat at least 5 portions of a variety of fruit and vegetables every day



Choose wholegrain or higher fibre versions with less added fat, salt and sugar



Water, lower fat milk, sugar-free drinks including tea and coffee all count.
Limit fruit juice and/or smoothies to a total of 150ml a day.



Eat less often and in small amounts

Beans, pulses, fish, eggs, meat and other proteins
Eat more beans and pulses, 2 portions of sustainably sourced fish per week, one of which is oily. Eat less red and processed meat



Dairy and alternatives
Choose lower fat and lower sugar options



Choose unsaturated oils and use in small amounts

Per day 2000kcal 2500kcal = ALL FOOD + ALL DRINKS

Carbohydrates

Carbohydrate provides an important source of **energy** for the body.

Carbohydrate provide energy to move and be active as well as energy for body processes such as breathing, heart beating.

Vitamin B (thiamine and riboflavin) is needed to help release the energy to the body.

All carbohydrates are converted to **glucose** when digested and this is converted to energy.

If the energy is not used up then it is stored as body fat.

Simple Carbohydrates (sugars) Sugar gives a fast release of energy that means your blood sugar levels go up. Some foods contain natural sugars such as milk, fruit & honey.		Complex Carbohydrates (starch) Starchy foods provide a slow release of energy and help our blood sugar levels stay the same so we don't feel tired.
glucose – Fruit, vegetables, honey, sugar beet/cane, corn	sucrose – Sugar beet/cane	starch – Potatoes, wheat, oats, pulses, corn, rice, pasta, bread, cous cous, cereals, beans, lentils, kidney beans, porridge, muesli, non-starchy vegetables
galactose – found in the milk of mammals	maltose – Soya beans, barley, wheat	
fructose – found in fruit Fruit, vegetables	lactose – Milk and milk products	Dietary Fibre (NSP) – found in wholegrain cereals, Fruit, vegetables, seeds and nuts

Excess carbohydrates :

Obesity, Tooth decay, Type 2 diabetes

Carbohydrates deficiency:

Lack of energy, weight loss, severe weakness

Protein

Protein is a macronutrient formed from chains of amino acids which are the building blocks of protein. There are 20 amino acids that come from animals and plants.

What is protein needed for?

Growth of skin, hair, cells, organs, bones and connective tissue. Growth especially in children and pregnancy.

Repair body tissues after illness, injury or surgery.

A **secondary source of energy** for the body.

Maintaining the body (bones and muscles)

Higher biological value (HBV) protein	Lower biological value (LBV) protein
Contain all essential amino acids	Contain some essential amino acids
From animal sources	From plant sources
Meat, fish, eggs, milk, cheese <i>Exception – soya beans</i>	Cereals, nuts, beans, seeds

Protein Complementation – two or more LBV proteins can be eaten together to provide all the essential amino acids, e.g. beans on toast or mixed bean and lentil curry. This is protein complementation, and is important for vegetarians and vegans.

Excess protein in the diet is used as energy. If it is not required for energy then it will be stored as fat.

Protein deficiencies are rare but in developing countries but can lead to stunted growth in children.

Some groups of people have a higher need for protein:

- babies and children – for growth;
- adolescents – for growth spurts;
- pregnant women – for the growing baby;
- People healing from surgery
- An athlete for growth and repair of muscle and tissue

Fat

Our bodies need fats for many essential functions, however in the modern world many people consume over the recommended daily amounts of fat which can cause problems with obesity, heart disease and stroke.

What is fat needed for?

Protect vital organs

Stores fat-soluble vitamins (A, D, E and K)

To maintain body temperate

Ensure a healthy immune system

Maintain healthy skin and hair

Provide energy (fat is very high in energy)

Fat is a source of fatty acids, these are essential mechanisms for cell membranes in the nervous system and the brain

Saturated fat	Unsaturated fat
Solid at room temperature	Liquid at room temperature
More harmful to health, as they raise LDL cholesterol	Considered to be the 'healthier' fats. They can help maintain healthy HDL cholesterol levels
Mainly from animal sources	From plant sources and fish
Butter, lard, ghee Coconut and palm oil Fatty and processed meats, sausages, bacon and cured meats Full fat milk and diary products (cream, ice cream, cheese) Chocolate	Vegetable oils and olive oil Nuts, flax seeds and sesame seeds Avocados and olives Fatty fish (salmon, sardines, mackerel)

Cholesterol - a fatty substance usually produced by the liver – is carried in the blood by proteins. When these proteins and fat combine, they are called lipoproteins. These two main lipoproteins can be good or bad for our health:

Low-density lipoprotein LDL is the bad type of cholesterol that can build up and clog the arteries, causing stroke and heart disease.

High-density lipoprotein HDL the good cholesterol can positively affect the body by helping clear cholesterol out of the arteries or removing excess cholesterol to the liver, where it is broken down and disposed by the body.

Fat-soluble Vitamins

Vitamin	Function	Sources
Vitamin A	<p>Helps with vision in dim light</p> <p>Helps the body grow and develop</p> <p>Strengthens the immune system</p> <p>Skin health</p>	<p>Animal sources (retinol) - liver, milk, oily fish (retinol)</p> <p>Plant sources (beta carotene) - green leafy vegetables, carrots and orange and red coloured fruits (carotenoids)</p> <p>Added to margarine</p>
Vitamin D	<p>Absorption and use of calcium and phosphorus</p> <p>Maintenance and strength of bones and teeth</p> <p>Important in brain function</p> <p>Supports immune and nervous system</p> <p>Supports lung function</p>	<p>Oily fish, eggs and dairy products</p> <p>Fortified breakfast cereals and margarines (vitamin D added by law)</p> <p>Sunlight on the skin</p>
Vitamin E	<p>Healthy skin and eyes</p> <p>Boosts immune system</p> <p>Helps clots from forming in the arteries</p>	<p>Sunflower seeds</p> <p>Almonds, peanuts</p> <p>Avocados, butternut squash, asparagus, pumpkin, mango, dark green vegetables</p> <p>Vegetable oils</p> <p>Oily fish</p>
Vitamin K	<p>Blood clotting and help healing wounds</p> <p>Keeps bones healthy</p>	<p>Leafy green vegetables, kale, spinach, broccoli, asparagus</p> <p>Cheese</p> <p>Liver, bacon</p>

Water-soluble Vitamins

Vitamin	Function	Sources
Vitamin B1 Thiamine	Release of energy from carbohydrates Healthy nervous system Normal growth of children	Wholegrain products, wheat, rice Meat, fish, milk and dairy Marmite Seeds, nuts, beans and lentils. Peas Fresh fruit – bananas and oranges
Vitamin B2 Riboflavin	Energy release from foods / break down protein from food Healthy nervous system Maintain healthy growth and skin	Same as vitamin B1 Mushrooms
Vitamin B3 Niacin	Energy release from foods Helps the body use of protein and fat Helps with lowering fat levels in the blood Healthy nervous system, skin and hair	Same as vitamin B1
Vitamin B9 Folate/Folic acid	Helps body form healthy red blood cells Helps body use protein Important for the development of unborn babies (essential for pregnant women)	Liver and kidney Wholegrain products Pulses and seeds Leafy green vegetables, asparagus Potatoes

Water-soluble Vitamins

Vitamin	Function	Sources
Vitamin B12 Cobalamin	Supports production of energy Protective coating around nerve cells Brain function Production of red blood cells Not enough B12 can cause anaemia	Meat, fish and shellfish Dairy products, cheese, milk, yogurt Eggs
Vitamin C Ascorbic acid	Helps absorb iron from foods Helps the immune system fight and prevent infection Production of collagen that binds connective tissue Antioxidant – protects from pollutants in the environment Helps heal wounds Helps skin health	Citrus fruits, lemon, oranges, limes kiwi, blackcurrants, strawberries, papaya, pineapple, mango Potatoes Salad and green vegetables, e.g. broccoli, kale, spinach Peppers, chillies, cauliflower

Minerals

Vitamin	Function	Sources
Calcium	<p>Strengthens bones and teeth</p> <p>Bones are able to reach peak bone mass – maximum strength</p> <p>Growth of children</p> <p>Promotes nerves and muscles to work properly</p> <p>Vitamin D is needed to help absorb calcium</p>	<p>Dairy foods, milk, cheese, cream, yogurt</p> <p>Green vegetables, kale, spinach, cabbage</p> <p>White bread – calcium is added by law,</p> <p>Soya products, tofu</p> <p>Nuts and seeds</p>
Iron	<p>Supports the production of haemoglobin in red blood cells; this transports oxygen around the body</p> <p>Low iron levels cause anaemia</p> <p>Vitamin C is required to absorb iron</p>	<p>Red meats – liver and kidney</p> <p>Lentils, dried apricots, cocoa, chocolate,</p> <p>Curry spices,</p> <p>Green leafy vegetables, e.g. spinach,</p> <p>Breakfast cereals fortified with iron</p>
Sodium	<p>Regulate the amount of water in the body</p> <p>To assist the body in the use of energy</p> <p>To help control muscles and nerves</p> <p>Too much salt/sodium can increase blood pressure and heart disease</p>	<p>Processed foods – for flavour and as a preservative,</p> <p>Salt added to food in cooking process for flavour,</p> <p>Smoked meats</p> <p>Bacon</p>

Minerals

Vitamin	Function	Sources
Potassium	Helps with growth Helps the heart muscle to work correctly Regulates the balance of fluid in the body Can helps with blood pressure	Red meat, fish, diary products Broccoli, tomatoes, peas, potaoes Lentils, kidney beans, soybeans, nuts Dried apricots, prunes Bananas and kiwis
Magnesium	Healthy immune system Helps with inflammation Turns food into energy Healthy bones Helps with blood sugar levels	Green leafy vegetables, spinach, avocado Nuts, pumpkin seeds, brown rice, whole grain bread, Fish (salmon), meat (beef), dairy Potatoes with skin on Black beans and soybeans

Dietary Fibre (NSP)

Insoluble fibre is not easily broken down by the digestive system. It passes through the body unchanged, keeping the bowels healthy and preventing digestive problems such as constipation and haemorrhoids.

Sources: Oats barley rye most beans and peas fruit root vegetables

Soluble fibre is broken down by bacteria in the bowel to be digested. It can help reduce cholesterol in the blood and guard against coronary heart disease.

Sources: wholegrain cereals, wholemeal bread Bran, nuts, corn, oats, fruit, vegetables (especially the skin)

Functions

Helps prevent constipation.

Helps prevent type 2 diabetes.

Helps reduce the risk of colon cancer.

Lowers the risk of coronary heart disease.

Reduces the temptation to snack between meals.

Helps support a healthy weight.

Slows down absorption of carbohydrates in the blood to help keep blood sugar levels constant.

Deficiency

A deficiency is often caused by eating too many refined foods, e.g. white bread instead of whole meal, or white rice instead of brown rice. It may also be caused by a general lack of fruit and vegetables in the diet. A deficiency can lead to constipation, haemorrhoids, colon cancer and/or diverticulitis.

Water in the diet

Water is the major component of body fluid and has many functions in the body:

- it acts as a lubricant for joints and eyes;
- it is the main component of saliva;
- it helps get rid of waste;
- it helps regulate body temperature.

The body loses water all the time, when we go to the toilet, from sweat and also evaporation from skin. If we do not consume enough water, we become dehydrated.

- Water is provided by food and drinks.
- 20% of water consumed is from food.
- 80% is from drinks.
- Some fluids are less beneficial, coffee and tea can increase water loss, sweetened drinks contain a lot of sugar and fizzy drinks are acidic on the teeth.



Nutrition at different life-stages

Infants (Birth to 2 years)

- All nutrients are essential and important in babies, especially protein as growth and development of the body is very quick at this stage.
- The brain is growing and developing
- Organs and organ systems grow at a rapid rate
- You should try to limit the amount of salt and free sugars in the diet.
- A lot of energy is used for physical activity.
- Wide selection of foods should be introduced from 6 months old containing all food groups on the Eatwell guide.
- Cows milk shouldn't be given until over 12 months old.

Nutrition at different life-stages

Early childhood (3-8 years)

- Growth and weight are steady during the preschool age.
- All children will grow at a similar and steady rate until they reach adolescence.
- The brain is growing and developing during this stage.
- Muscles increase and body fat decreases.
- Stomachs are smaller; children require smaller meals which are full of ^{of} nutrients.
- Children's food should be high in nutrients to promote growth and development.
- Children should consume healthy meals to encourage healthy eating habits.
- Young children are often active; therefore, they should be getting enough calories to provide the nutrients required.
- Children should consume a varied diet which is full of calcium and vitamin D to promote bone health and growth.
- Bone density increases and bone tissue gradually replaces cartilage.
- Processed foods should be avoided as they contain hidden saturated fats, salt, and sugar.
- A lot of energy is used for physical activity.

Nutrition at different life-stages

Adolescence (9-18 years)

- During puberty, young people will go through a big growth spurt; therefore, they will need extra food as they require more energy for growth.
- Protein is an essential macronutrient for bone and organ growth.
- The reproductive system will reach sexual maturity.
- Puberty starts - females usually start this before males. Females will need to increase their iron intake due to loss of iron during their menstrual cycle.
- Females need to make sure they eat enough food containing vitamin C and iron to prevent anaemia.
- High vitamin C intake is needed to help with the absorption of iron from foods.
- Teenagers can grow rapidly at this stage.
- Vitamins and minerals are vital for the correct development of bones and organs
- Males will start to develop muscle mass and will therefore require the right amount of protein each day.
- Processed foods should be avoided as they contain hidden saturated fats, salt, and sugar.
- A lot of energy is used for physical activity.

Nutrition at different life-stages

Early adulthood (19-45 years)

- The skeleton continues to take up minerals until peak bone mass is reached about 30 years of age.
- Adults should eat the recommended amount of nutrients to keep their immune system strong and prevent infection.
- Protein is required for repair and growth during this stage.
- The Eatwell Guide should be followed for a balanced diet.
- Pregnant and breastfeeding individuals need to increase folate, vitamins, and calories to help with foetus development and growth.
- Individuals who are breastfeeding will require more nutrients for the development of the baby.
- Women continue to menstruate until the menopause (approx late 40s to early 50s)
- Weight gain can occur if the energy intake of the diet is unbalanced and insufficient physical activity is taken.

Nutrition at different life-stages

Middle adulthood (46-64 years)

- Some females will go through perimenopause before transitioning into menopause.
- Perimenopause is when the ovaries produce less oestrogen.
- A female will go through the menopause later in this life stage - this is where the ovaries stop producing eggs.
- Both perimenopause and menopause can last up to 10 years; therefore, a female should increase calcium, magnesium and vitamins K and D to maintain bone health.
- Females going through the menopause should not consume too much phosphorous as it can accelerate the loss of some minerals needed for bone health.
- Dietary fibre should be eaten frequently during middle adulthood to aid the digestive system.
- Fats should be unsaturated and saturated fats should be consumed as little as possible as this could lead to obesity, heart disease or stroke.
- Weight gain can occur if the energy intake of the diet is unbalanced and insufficient physical activity is taken.
- Metabolic rate gradually slows down.
- The body needs to be maintained to keep it free from disease, strong and active.

Nutrition at different life-stages

Later adulthood (65+ years)

- Absorption of nutrients may decline during this stage as the digestive system becomes less efficient.
- Calorie intake decreases for those over 75 years old; this is because many older adults are less active at this age. The metabolic rate also slows down.
- The amount of fat needed decreases during this stage.
- Protein is needed to repair wounds and cells.
- Vitamin D should be consumed in the diet, and older people should get plenty of sunlight.
- Plenty of fruit and vegetables should be in the diet.
- Fatty foods and foods which are high in sugar should be limited as this can cause weight gain, and increase the risk of heart disease and type 2 diabetes.
- Chewing foods may become more difficult due to dentures or other health problems, which means softer foods are more desirable for some older adults.
- Dietary fibre is important as the digestive system may slow down
- Blood pressure may increase, only small amounts of salt/sodium should be consumed
- Eyesight may weaken – Vitamin A, C and E can help to prevent eye conditions
- The skeleton gradually starts to lose minerals and become weakened. This can develop osteoporosis. Calcium and vitamin D can help to maintain bone strength.

Unsatisfactory nutritional intake

Nutrient	Deficiency	Excess
Carbohydrates	<p>The short term effects of a lack of carbohydrates are weight loss and lethargy.</p> <p>carbohydrate deficiency is rare, PEM – protein energy malnutrition in infants with stunted growth or thin arms and legs, and large distended abdomens.</p>	<p>When too much carbohydrate is consumed and not used for energy over an extended period of time, it is stored as fat.</p> <p>Too much sugar can lead to tooth decay.</p> <p>Excess carbohydrate could lead to type 2 diabetes.</p>
Protein	<p>Vegetarians and vegans need to make sure they eat a variety of foods to get all the essential amino acids.</p> <p>Protein deficiency is rare, PEM – protein energy malnutrition in infants with stunted growth or thin arms and legs, and large distended abdomens</p>	<p>Most excess protein is broken down and used as energy supply.</p> <p>Could cause damage to kidneys if very extreme.</p> <p>Acids accumulate in joints - Gout.</p>
Fat	<p>Hard to consume insufficient fat in a modern diet, extremes e.g. body builders, eating disorders.</p> <p>Hair falling out, brittle nails and dry skin.</p> <p>Brittle nails.</p> <p>Vitamin deficiencies ADEK.</p>	<p>Coronary heart disease.</p> <p>Obesity.</p> <p>Strokes.</p> <p>High cholesterol blocks arteries.</p>
Fibre	<p>Constipation leading to long term impaction in the bowel, diverticulitis needs surgery.</p> <p>Increased risk of bowel cancer</p>	<p>Short term effects such as discomfort in the stomach.</p> <p>Excess flatulence.</p> <p>Some people with IBS cant tolerate too much fibre.</p>

Specific Dietary Needs

In addition to dietary needs based on age and gender, people may also have specific dietary needs due to health conditions.

Specific dietary need	Description	Changes to diet
Coeliac disease	A condition where people have an adverse reaction to gluten, a protein found in wheat, barley, rye, and also oats, which contain a similar substance to gluten.	Gluten-free flour, Almond flour Buckwheat flour, Rice flour, Corn flour
Diabetes (type 2)	Either too little insulin is produced or the body's cells fail to react to the insulin that is produced.	A healthy balanced diet and increased physical activity.
Dental Health	Dental cavities due to dental decay.	Reduce sugar
Bone Health	Osteoporosis is common in old age. Bones become weak, brittle and more likely to break.	Diet rich in calcium and vitamin D
Iron deficiency anaemia	Lack of iron in the body leading to a reduction of red blood cells	Iron rich diet – leafy greens, brown rice, meat, fish, tofu, eggs
Obesity	Someone who is overweight, classified by their BMI	Calorie controlled diet and exercise
Cardio-vascular disease (CVD)	A disease of the heart or blood vessels	Low saturated fat, High fibre Low salt
Lactose Intolerance	Caused when the body is unable to digest lactose (a sugar found in milk and dairy products). Lactose intolerance causes stomach upset.	Cows milk must be avoided. Alternatives; soya milk, almond milk, rice milk.

Allergens

Which ingredients can cause a problem?

Cereals containing gluten

Peanuts

Nuts

Milk

Soya

Mustard

Lupin

Eggs

Fish

Crustaceans

Molluscs

Sesame seeds

Celery

Sulphur dioxide

Specific Lifestyle Needs

Specific lifestyle needs are the choices and beliefs that people have about what they will eat.

Specific lifestyle need	Dietary requirement
Vegetarian	<ul style="list-style-type: none"> • Vegetarians don't eat meat, poultry, fish • Do eat dairy and eggs
Vegan	<ul style="list-style-type: none"> • Do not eat any food with an animal origin.
Pescatarians	<ul style="list-style-type: none"> • Do not eat meat • Do eat fish, dairy and eggs
Religion - Hindu	<ul style="list-style-type: none"> • No beef or beef products • Most Hindus are vegetarian
Religion - Muslim	<ul style="list-style-type: none"> • No pork • Only eat meat that is halal, where animals are slaughtered in a religiously approved way.
Religion - Jewish	<ul style="list-style-type: none"> • No shellfish or pork • Only kosher meat • No dairy foods are eaten with meat in a meal.

2.1.2 How cooking methods can impact on nutritional value

How cooking impacts macronutrients

Protein

- Protein is denatured which makes it easier for the body to use.
- Too much heat can over-cook protein and make it hard to digest

Fat

- Cooking foods in fat increases the energy density to the dish. This can occur with frying, roasting and stir frying. The type of fat and the amount of fat used to cook in important.
- When fat is heated it melts.
- Fat adds vitamins A, D, E and K

Carbohydrates

- Starch granules soften which makes them easier to digest
- Sugars turn to syrup and may caramelize if heating continues, which changes their flavour and colour and reduces the energy value.

2.1.2 How cooking methods can impact on nutritional value

How cooking impacts micronutrients

Water soluble vitamins (B and C)

- As they are water soluble they dissolve in water
- When cooking water is poured away vitamins are lost
- Cooking water can be used for stock to retain the vitamins
- Damaged by heat, the longer they are cooked the more damage
- The higher the temperature the more damage
- Quick cooking minimises loss of vitamin B and C
- Low temperatures will help to prevent destruction of vitamin B and C

Fat soluble vitamins (A, D, E and K)

- Fat helps the body to absorb fat soluble vitamins
- If fat melts away from the food fat soluble vitamins are lost
- Vitamin A remains stable when cooked

Minerals

- Calcium dissolves in water
- Sodium dissolves in water

2.1.2 How cooking methods can impact on nutritional value

Boiling

- Vitamin C is water-soluble and is sensitive to heat; therefore, this vitamin can leach out of vegetables into the water. Vegetables may lose up to 50% of their vitamin C when boiled
- B vitamins are sensitive to heat and up to 60% of thiamine, niacin, and other types of vitamin B can be lost in the liquid whilst boiling.
- If the liquid is used to make a stock or a gravy, then 70-90% of the vitamins could be retained in the juice.
- Minerals tend to survive better than vitamins when boiled.
- Studies have found that boiling food in less water for less time can reduce the amount of vitamins lost. When boiled in less water, leafy green vegetables retained 60% of vitamin C and 65% of folate.
- Root vegetables will retain 90-95% of minerals and around 70% of vitamin C and folate when they are boiled in less water.
- Using less water to boil can help retain 85% of thiamine, 90% of vitamin A and 95% of riboflavin, niacin and B6.
- Boiling fish has shown to preserve omega-3 fatty acids.

2.1.2 How cooking methods can impact on nutritional value

Frying

- Frying can involve shallow or deep frying foods. Shallow frying uses smaller quantities of oil than deep fat frying.
- Deep fat frying oily fish can damage the important omega-3 needed in a diet. Frying fish such as tuna can damage omega-3 by 70-85%.
- Frying can preserve some vitamins C and B.
- Frying potatoes can convert the fibre into resistant starch.
- Frying has minimum impact on the minerals and protein in food.
- Thiamine is retained well when frying potatoes. However, antioxidants and unsaturated fatty acids are lost during the frying method.
- Water-soluble vitamins are retained better in frying than boiling.
- The International Journal of Food Science and Nutrition states that vitamin C and B1 is maintained in fried potatoes.
- Deep frying retains more vitamin C than shallow frying.
- Deep fat frying causes a loss of vitamin A.

2.1.2 How cooking methods can impact on nutritional value

Grilling

- Vitamins C and B are retained; however, the higher heat and longer grilling time can decrease retention by 40%.
- Fat can be reduced with grilling as the fat drips off the meat.
Up to 40% of fat-soluble vitamins can be lost when the fat runs off the meat.
- Minerals are retained.

Poaching

- This is a water-based method of cooking and has similar effects on nutrients as boiling.
- Vitamins C and B leach out into water.
- Up to 50% of vitamin C is lost during this cooking method.
- Up to 60% of vitamin B is lost in poaching.
- No fat is added during this method so it is a healthy cooking option.
- It is a delicate cooking method for fish.
- Poaching in a stock means the stock can be re-used.
- The juices from poached fruit can be retained and used again.

Poaching keeps moisture in the food.

2.1.2 How cooking methods can impact on nutritional value

Baking

- This is a process of cooking by dry heat.
- Due to the heat, up to 60% of vitamin B can be lost.
- Thiamine and vitamin C are the vitamins most affected by the heat during this process.
- Baking vegetables with skins on can reduce the amount of nutrients lost.

Stir-frying

- A small amount of oil is used during this method of cooking; therefore, it is a healthier way of cooking food.
- The cooking time is kept to a minimum.
- It helps to prevent the loss of vitamin B.
- Oil helps with the absorption of antioxidants.
- The absorption of beta carotene can be up to six times greater in stir-fried vegetables than in raw vegetables.
- Vitamin C can decrease 24% or more during this cooking method.

2.1.2 How cooking methods can impact on nutritional value

Roasting

- Due to the long cooking times, vitamin B can decrease by 40% or more.
Iron and thiamine are lost in the fats/liquid.
- Vitamin loss can increase up to 60% with longer length of cooking.
- Making a gravy/sauce from the liquid will retain the nutrients lost during roasting.

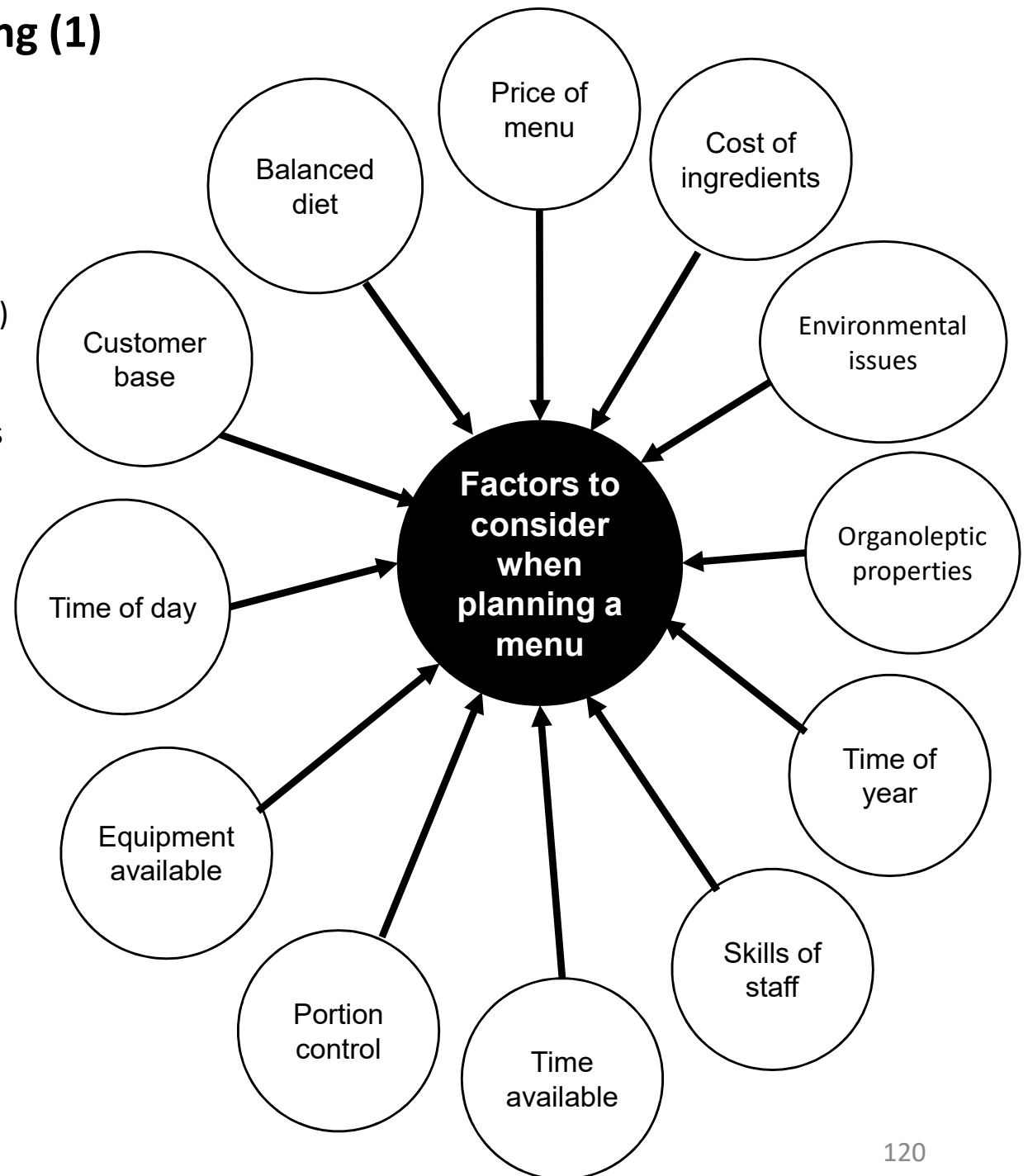
Steaming

- As the food is steamed and doesn't touch water, vitamins C and B do not seep out into the water.
- Minerals are maintained in this method.
This is one of the best cooking methods to preserve nutrients.
- As little as 9-15% of vitamin C can be lost in this method of cooking.

2.2.1 Factors affecting menu planning (1)

You need to be aware of the following factors when planning menus:

- **cost** (ingredients as well as business costs)
- **portion control** (value for money without waste)
- **balanced diets**/current national advice
- **time of day** (breakfast, lunch, and dinner menus as well as small plates and snacks)
- **clients/customers** (a menu with prices that will suit the people who visit your establishment).



2.2.1 Factors affecting menu planning (2)

Customer

Who is the customer?

What age are they?

What nutritional requirements to they have?

Special dietary requirements

Budget

Time of day that the customer is eating ie. breakfast, lunch or dinner

Type of provision

Planning a menu depends on the size and type of provision. For example a small coffee shop would not require large industrial equipment. The customers visiting a coffee shop would also not want to wait very long for their food. They would also expect to be able to buy light lunch time dishes, not fancy fine dining dishes that take a long time to produce.

Cost

Cost of ingredients

A profit needs to be made

Customers budget

Type of provision

Competitive prices

Portion control

2.2.1 Factors affecting menu planning (3)

Skills of the chef

The skills of the chef must be suited to the type of provision and the menu offered.

A Michelin starred restaurant will require a chef who has complex skills in preparation, cooking and presentation of dishes.

A café will require a chef who has a range of medium and complex skills to produce a suitable menu.

A large restaurant will normally have a full kitchen brigade while a smaller establishment may only have a single chef with one or two assistants.

Time available

The type of provision will influence the amount of time a customer may be willing to wait for their dish to be prepared.

Can the chef prepare, cook, and present more than one dish at the same time?

Can some items be made in advance?

Average waiting time for a meal

5-6 mins fast food outlet

23 mins Restaurant

40 mins Fine dining

Equipment available

You need to know and understand the type of equipment needed to produce a menu. The choice of dishes will be influenced by the equipment available to the chef.

This includes kitchen equipment such as:

- hobs, ovens, and microwaves
- fridge, freezer and/or blast chiller
- specialist equipment, for example a sous vide or pizza oven
- hand-held equipment, for example electric whisks or hand-blenders
- other electric equipment, for example food processors.

2.2.1 Factors affecting menu planning(4)

Time of year

The time of year can affect menu choices.

- Light and cold dishes such as salads are better suited to the summer months.
- Hearty dishes such as stews are more suited to the winter.
- Special dishes linked to holidays such as Christmas and Valentine's Day may also be included.
- The availability of seasonal produce can also affect menu choices as certain commodities, for example strawberries, are less expensive when in season.

Environmental issues

The chef will need to think about environmental issues when planning a menu.

- Can the chef reduce the amount of ingredients bought as well as reducing food waste?
- Can the chef reuse ingredients to create new dishes for example stale bread made into bread-and-butter pudding?
- Can the kitchen recycle waste wherever possible?

Running the kitchen sustainably will save money.

Organoleptic properties

Organoleptic properties are the sensory features of a dish (appearance, aroma, flavour, and texture).

The chef will need to think about how the dish will look and taste.

Is there a range of colours?

Do the flavours go well together?

Are there a variety of textures?

The organoleptic properties will need to suit the customer and the type of provision.

There must be choice of dishes on the menu that cover a range of foods

Consideration	Description
Variety of ingredients	<ul style="list-style-type: none"> • Try not to repeat the ingredients from one course to another. • E.g. tomato soup followed by pasta in tomato sauce.
Variety of colours	<ul style="list-style-type: none"> • Use colourful vegetables, salads, garnishes and decorations to lift the colour of food on the plate. • White green, cream and brown are “dead colours” too much of these will make the food look dull and unappetising.
Variety of flavours	<ul style="list-style-type: none"> • Do not repeat strong flavours from one course to another. • A menu should not have all one sort of flavour such as cream sauces as some people prefer a tomato based sauce or something spicier. • Try not to over season food so customers can taste the natural flavours of the food.
Variety of textures	<ul style="list-style-type: none"> • Contrasting textures are important to give variety and interest to a meal. • E.g. croutons with soup, ice cream with wafers. • Try to include foods that are soft and foods which need to be chewed, bitten or crunched. • Cooking changes the texture of some foods like rice pasta, vegetables and meats.
Variety of shapes	<ul style="list-style-type: none"> • Try to include as many different shapes as possible to provide interest. Or theme to one particular shape. • E.g. with a buffet: sausage rolls, chicken twizzles, tuna baskets, mini quiches, cream cheese stars, cream horns, meringues. • Chefs often stack food to look attractive on a plate and add shape to a plate where there is none. • Shaped plates can also add interest to plain foods.

2.2.2 How to plan production

- **Before you start** make sure you have each of your recipes written out in clear simple step by step instructions
- **Identify your mise en place** for each dish and accompaniments and complete this section first.
- Write a **rough plan** on another sheet of paper of the order that you need to make your dishes in
- Writing up the time plan – **start with the process**; this needs to include every stage of the making process for both of your dishes and accompaniments. It needs to be detailed enough for someone else to make your dishes and include the quantities of ingredients needed.
- Include details about the serving of your dishes.
- Once the process section is complete, add the **timings**. Who long will it take you to complete each stage? This needs to start at 9.00 and end at 12.00 (3 hours)
- Finally the **special points**. This needs to include:
 - The 4 C's
 - **Chill** - Temperatures of storage
 - **Cook** - Core cooking temperature
 - **Clean** - Personal hygiene, kitchen hygiene
 - Ways to prevent **cross-contamination**
 - Types of risk, food safety or personal safety
 - Washing up regularly
 - **Contingencies / Quality control** – what could go wrong and how could you fix it?

2.2.2 How to plan production - Glossary

Commodity list with quantities

A production plan needs to include list of all the ingredients needed and their quantities.

An ingredients list can be a stand-alone list or included in the production plan.

Equipment list

you need to note all the equipment you will need to prepare and cook the dish. The equipment list could be included as an additional column on the production plan or as a stand-alone list.

Health, safety, hygiene, and storage

An additional column on the product plan adds all the health, safety and hygiene points you need to consider. Such personal hygiene points would include wearing an apron, washing your hands and removing your jewellery. Food should be stored in the fridge between 2°C and 5°C and in the freezer below -18°C. Different chopping boards should be used for different foods, and raw meat should be prepared separately in the kitchen.

Mise en place preparation before cooking

Equipment should be prepared before weighing and measuring ingredients. Ingredients should be stored correctly, ready to be used. If preparing a fish to be cooked, it should be washed, cut, deboned, and filleted. The production plan should be read very carefully, and the stages should be understood. The oven must also be turned on to the correct temperature.

Quality points

Quality points should be checked before preparing, cooking and serving. All equipment should be checked for damage and cleanliness, and fruit and vegetables should be fresh, bright, and not bruised. When using fish, the 'use by' date should always be checked, and the fish should smell fresh, have bright eyes, and should be firm and shiny (not slimy). Meat should also be checked to make sure it is not past its 'use by' date; it should smell fresh and feel firm. Meat needs to be the right colour and shouldn't be too fatty.

Hot holding and serving

Food should be kept at 63°C for a maximum of two hours only. The correct equipment needs to be used to hot hold foods, the food should be served simultaneously, and the temperature of food needs to be checked using a food probe.

2.2.2 How to plan production - Glossary

Cooling

You should ensure that cooked foods are cooled rapidly at room temperature and placed in the fridge within one to two hours. Alternatively, a blast chiller can be used to decrease the temperature quickly.

Cooking

When cooking food, follow the recommended time, use a food probe to check the correct temperatures, follow all food hygiene standards, clear up as you go along and check the flavouring of dishes before serving.

Timing

The timing of each step is critical to make sure dishes are served to the customer simultaneously, and at the correct temperature. Planning for each stage of preparing and cooking will help with the organisation and overall success of the dishes.

Contingencies

A contingency plan is in place in case something goes wrong and should be considered in each stage of the production plan. For example, over-whipping the cream. In this case, you should have spare ingredients to replace the cream. If you cut yourself, you should know who the first aider is and where the first aid box is situated. If there is a fire, you should know what to do in a small kitchen fire, and you should be able to locate a fire blanket and the closest fire alarm.

Sequencing/dove-tailing

This is an essential process of planning; it is the order of the production. Sequencing or dove-tailing needs to be considered to ensure all dish parts are ready simultaneously. When designing the menu for your brief, you will need to consider the correct order of preparing and cooking the dishes.

For example, making ice cream after other dishes will mean it won't be ready in time, as it takes longer to set and freeze.

2.2.2 How to plan production – examples of special points

Safety	Hygiene	Temperature & Dates	Cooking	Contingencies
Use oven gloves	Check all equipment is clean before using	Fridge 1-4° C	Pre-heat oven	If dish is not cooked return to oven & cook furthermins.
Hold knife point downwards	Use correct coloured knives/boards	Freezer -18 °C	Cooking time – in minutes	If pastry is too dry add more water
Do not put knives in sink	Meat - Red board Raw Fish - Blue board	Hot Holding above 63°C	Oven Temperature e.g. Gas 6 /200°C	If meat does not reach 75°C return to cook further.....mins.
Avoid cluttered work surfaces	Salad and fruit - Green board	Avoid Danger zone 5° – 63°C	Grease & line tin to prevent sticking	If sponge does not spring back return to cook furthermins.
Open lids away from you to prevent scalding	Bakery & Dairy - White Cooked	Boiling Point 100°C	Cakes should be golden brown	If there is yolk in egg whites save for another dish and use fresh eggs
Don't overheat oil -know your temperatures	Store raw and cooked food separately	Core Temperature above 75°C	Bread & cakes should be well risen	Use lemon to avoid enzymic browning
Pan handles facing inwards	Wash hands using anti-bacterial soap.	Don't put hot foods in the fridge	Bread should sound hollow when cooked	Check quality of all ingredients/visual check Have extra ingredients in case something goes wrong
Put a damp cloth under boards	Cover food before placing in fridge	Pre-heat oven	Consistency of food - check recipe	If the sauce is too thick add more liquid If the sauce is too thin continue to simmer
Sharpen knives before use	Sanitise worktops to kill bacteria.	Cover and Chill in fridge 1° – 4°C	Use bones for stocks	Look through the glass panel in oven before opening door.
Store knives safely.	Wash up in hot, clean soapy water to kill bacteria	Use a temperature probe correctly	Use a cooling rack to cool effectively	Always check seasoning and adjust accordingly

2.2.2 How to plan production - examples of special points

Safety	Hygiene	Temperature & Dates	Cooking	Contingencies
Ensure frozen food is completely defrosted	Rinse in clear water and air dry	Wrap in cling film before chilling.	Use lids to conserve energy	Test oil temperature before deep frying- use bread or thermometer
Clean cooker to remove all food scraps.	Remove all jewellery	Check use by & best before dates.	Baking bind to prevent centre rising	Ensure food e.g. vegetables are the same size to ensure even cooking
Use electrical equipment safely. No wet hands	Always use a blue plaster for cuts	Store high risk food in the fridge	Turn off oven, rings when not in use	If you burn something you need to start again with fresh ingredients
Bridge & claw techniques when using knives	Remove nail varnish Hair correctly tied back	Always apply FIFO rule	Using a timer for accurate cooking	Ensure water is boiling before adding food or cooking time will be incorrect
Mop up any spills immediately	Put only cold food in the fridge or freezer	Never refreeze food	Use correct size ring to conserve energy	Sauce – stir to avoid lumps using a wooden spoon

2.3.1 How to prepare and make dishes

Cooking Methods are categorised as follows:

Basic	Medium	Complex
grilling	griddling	poaching
skimming	pickling	tempering
toasting	reduction - simmering	blind baking
chilling	roasting	emulsifying
freezing	sautéing	caramelising
basting	setting	deep frying
cooling	steaming	
boiling	stir frying	
dehydrating	braising	
	deglazing	
	baking	
	blanching	

2.3.1 How to prepare and make dishes

Preparation techniques are categorised as follows:

Basic	Medium	Complex
blending	creaming	crimping
beating	folding	laminating (pastry)
grating	kneading	melting using bain-marie
juicing	measuring	pipng
marinating	mixing	shaping
mashing	puréeing	unmoulding
melting	rub-in	whisking(aeration)
proving	rolling	pipng
sieving	skinning	
tenderising	weighing	
zesting	toasting	
proving		
shredding		

2.3.1 How to prepare and make dishes

Knife Techniques are categorised as follows:

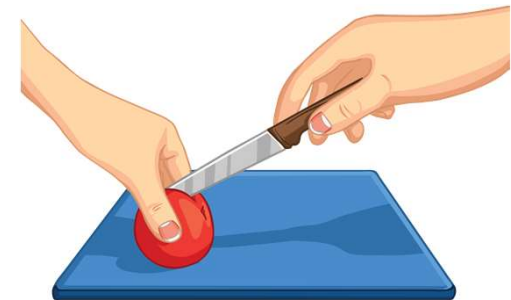
Basic	Medium	Complex
chopping	bâton	mincing
peeling	chiffonade	julienne
trimming	spatchcock	deboning
	dicing	filleting
	slicing	brunoise
	deseeding	segmenting

Holding the Knife Correctly



Claw Grip

Used when cutting longer fruits and vegetables.
Keep your fingers tucked under!



Bridge Hold

Used when cutting smaller fruits and vegetables to hold the food and protect your fingers.

2.3.1 Glossary Preparation Techniques

Blending is mixing foods to make one final product, eg blending soups, custards, pancakes, sauces.

Beating is a technique that combines ingredients and adds air using an electric whisk, wooden spoon, food mixer or processor.

Grating is shredding food into small shreds using a food grater or food processor with a grater cutter.

Hydrating is adding liquid to hydrate foods. Water, milk, and sauces can hydrate foods and add flavour. Foods can be hydrated by soaking them in alcohol or stock.

Juicing is squeezing or using a machine to extract juice from fruit or vegetables.

Melting is usually melting fats and sugars together over a low heat.

Sieving is separating and breaking up lumps of dry ingredients using a sieve.

Sieving also aerates; tiny air particles get trapped.

Tenderising is beating or slow cooking to make foods (often meats) softer.

Shredding is cutting foods into thin slices using a grater, food processor or knife.

Meats can be shredded using two forks.

Proving is when the dough rests and rises one last time before baking.

Mashing is crushing foods using a mashing tool, ricer, or fork.

Marinating is soaking foods in liquid or rubbing seasoning on them and allowing the foods to soak up the flavours.

Zesting is scraping off the outer part of citrus fruits and using it as flavouring.

Creaming is a technique used for mixing sugar and fats.

Dehydrating is removing moisture from foods either by using the oven on a low heat or by using a dehydrator.

Folding is gently and carefully folding over delicate ingredients into heavier ingredients (e.g. whisked egg whites into creamed sugar and butter).

Kneading is massaging dough and stretching the gluten to help with the fermentation process.

Measuring is using measuring cups and jugs to weigh and measure ingredients.

Mixing is combining ingredients either by hand or by using a food processor.

Pureeing is mashing cooked foods and pressing them into a smooth creamy paste.

2.3.1 Glossary Preparation Techniques

Rubbing is using your fingertips to combine fats with flour to make a breadcrumb consistency or rubbing spices/herbs into meats.

Rolling is using a rolling pin to flatten a dough mixture.

Skinning removes the skin from fish and meat and from the delicate outer skin of tomatoes.

Toasting is tossing nuts/seeds in a pan.

Weighing can be done using kitchen scales to weigh ingredients.

Crimping adds a patterned edge to pastry, biscuits, pasta, cakes, and dumplings. Crimping can be a decorative finish to a food product.

Laminating (pastry) is folding in butter, sandwiching, and then folding the pastry many times to create thin layers. When pastry is baked, the water and butter create steam, which produces a light, flaky pastry.

Shaping foods can be achieved by moulding with your hands (e.g. meatballs/fishcakes/bread) or by using cutters, spoons, or moulds. It is worth researching different ways of shaping foods to get ideas on different shaping.

Whisking (aeration) is a method of adding little pockets of air to food by using an electric whisk or a balloon whisk. Good examples of foods that require whisking are meringue, mousse, bread, cakes, and Japanese pancakes and cheesecakes.

Piping uses a piping bag and nozzle to create a decorative finish to creams, pastries, egg whites and mashed, smooth foods. Many different finishes can be made from piping techniques, and you should be given the opportunity throughout the course to practise these styles.

Melting chocolate using bain-marie uses a heatproof bowl placed over a saucepan containing simmering water. The water must not touch the bowl as it will cause the chocolate to seize, creating a grainy solid result. The melted chocolate can be used for runouts, shards, moulds and for drizzling over plates and foods for a decorative finish.

Unmoulding is taking a food product out of a mould or baking tin, such as jelly, a fluted pie, mousse, and panna cotta.

2.3.1 Glossary Knife Techniques

Chopping is cutting foods into approximately 12mm, bite-sized chunks.

Peeling is removing the outer skin layer from fruit and vegetables.

Trimming can be cutting the fat from meat.

Baton is a knife skill that cuts food into stick cuts about 6-8mm in thickness and width.

Dicing is cutting foods into medium to small cubes. They should be uniformed, measuring 20mm. This cut is used for soups and fruits like watermelon.

Slicing is using the claw or bridge method to slice in equal sizes.

Spatchcock is a technique that removes the chicken's backbone and flattens it out.

Chiffonade is a slicing technique which thinly cuts strips of leafy vegetables or herbs. This is accomplished by rolling the leaves tightly and finely chopping them into ribbons.

Deseeding is removing seeds from fruits or vegetables.

Julienne is used to slice vegetables lengthways 3mm in thickness and in width.

Brunoise is a cut that starts with julienning the vegetables, lining up the sticks together and cutting them into tiny cubes.

Mincing is smaller, finely cut brunoise; most herbs and garlic are minced.

Segmenting is separating the peel and pith from the fruit.

Filleting is the process of preparing a whole fish for cooking and eating; this may include gutting it first, then removing the head, fillet, and bones.

Deboning is separating meat from the bone and removing cuts of meat from the whole bird.

2.3.1 Glossary Cooking Techniques

Grilling can be done under the grill or over the barbeque. Grilling uses dry radiant heat, which tends to cook foods quickly.

Chilling reduces the temperature of foods either in the fridge or by using a blast chiller. Chilling foods can slow down the growth of bacteria. Fridge temperature should be between 2°C and 5°C.

Freezing should be done at -18°C in a freezer to preserve foods or make them temporarily turn into a solid form.

Basting is moistening meats from fat and stock to add flavour and moisture.

Cooling is reducing the temperature of a dish to below 8°C.

Dehydrating takes out moisture either by using low heat in the oven or by using a dehydrator. Common foods that are dehydrated are jerky and fruits.

Skimming is removing the top layer of liquid; it is often known as "scum" on the surface of soups, stocks, and other liquids.

Boiling is cooking foods in liquid heated to the boiling point, which is 100°C

Toasting is browning foods and giving them colour and locking in flavours.

Pickling is preserving or extending the shelf life of food by submerging it in brine or vinegar. Any food can be pickled. Foods that are often pickled include onions, gherkins, and eggs.

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Sautéing is cooking foods with a small amount of oil and tossing them whilst cooking in a shallow pan over a medium to high heat. Sauté is a French term meaning "to fry quickly in a little hot fat".

Braising uses both wet and dry heats. The food is usually browned first and then simmered in liquid, e.g. wine, stock, and beer.

Griddling is using dry heat over a solid cooking plate with cast iron (or an electric option can be used). This is used for making things such as pancakes and Welsh cakes.

Stir frying is frying quickly on a high heat in a lightly oiled wok or pan.

Deglazing takes place after cooking in a pan or roasting tin. The food is removed, and liquid is added, e.g. alcohol, stock, or water, using a utensil to scrape the bottom residue off the base of the pan to create a sauce or gravy.

Baking is a method of dry cooking which is normally done in an oven.

2.3.1 Glossary Cooking Techniques

Setting allows a food item to firm and set; this is usually cold food placed in a fridge or freezer. Products such as cheesecake, panna cotta, pâté and gelatine products need to be set.

Steaming uses an electric steamer or pan with water and baskets stacked above; the steam circulates and gently cooks the food.

Roasting is a dry heat cooking method, usually in an oven or open flame with oil. This is used for roasting many foods, including meats, vegetables, and nuts. Roasting caramelises and browns the food, creating fantastic flavours and aroma.

Frying is a cooking method where foods are cooked in shallow oil or fat in a frying pan.

Reduction is reducing the liquid by simmering and allowing the water to evaporate. This process is used for many sauces and produces an intense, thick, flavoursome concentrated sauce.

Blind baking is a way of baking a pastry pie or flan case/shell without the filling. Blind baking can prevent a soggy bottom, and it can be used for a filling that doesn't require baking such as cream with fruit.

Deep frying is the process of cooking foods by submerging them into fat and cooking on a high heat. An excellent example of this cooking method is at a chip shop where foods are deep fat fried. Deep fat frying can give foods a crunch, crisp texture. Most foods can be battered and deep fat fried.

Tempering gives chocolate a glossy finish. The best way to achieve this finish is to use a bain-marie. However, eggs and sauces can also be tempered - this is done by slowly increasing the temperature of the food. For example, when making a custard, whisk eggs and hot cream slowly to prevent the eggs from scrambling. Adding creams and other dairy products to sauces requires tempering to prevent the dairy from curdling when it encounters heat.

Emulsifying combines two ingredients that wouldn't usually mix such as oil and a water-based liquid like vinegar. Emulsification requires adding small amounts slowly, and energetically whisking until combined. This method can be created by hand or by using an electric whisk or food processor. Emulsification can create sauces and foods such as vinaigrettes, hollandaise sauce, mayonnaise, bearnaise bouillabaisse, and ganache.

Poaching uses moist heat and cooks foods gently in liquid just below the boiling point to infuse flavours. Liquids such as water, wine, creams, milk, and stock can be used to poach meats, eggs, fish, vegetables, and fruits.

Caramelising food is when sugar reacts to high heat. Foods higher in sugar will caramelize well in dry heat. Sugars such as honey, sweet glaze and brown sugar can help with caramelisation if the food has low sugar content. You can also combine sugar with heat to create caramel sauce, spun sugar, or praline.

Blanching is a technique where food is scalded in boiling water and is then dunked straight away into ice water to prevent it from overcooking and losing texture, flavour, and colour.

2.4.1 Reviewing of dishes

Area to consider	What it includes
Dish selection and rejection	<p>Did your dishes meet the requirements of the brief? Customers needs / the provisions needs / seasonal and local produce / suitable costing for the customer and provision</p> <p>Did the nutrients provided by the dish meet the needs of the customer?</p> <p>Did your dishes show a range of basic, medium and complex skills? Could you have included anymore complex skills?</p>
Dish production	<p>Were you confident with the preparation and cooking skills that you performed during the assessment?</p> <p>Did you have any problems during the preparation or cooking of the dishes?</p> <p>Did you use a range of equipment?</p> <p><i>For each of these questions explain your strengths and make recommendations on how to improve on weaknesses.</i></p>
Health and safety	<p>Did you store the ingredients correctly?</p> <p>Did you clear up regularly?</p> <p>Did you use the correct chopping boards for different foods?</p> <p>Did you use a temperature probe to check cooked dishes?</p> <p>Did you work safely with knives, heat, equipment?</p> <p>Did you work with the safety of other people in mind?</p> <p><i>For each of these questions explain your strengths and make recommendations on how to improve on weaknesses.</i></p>
Hygiene	<p>Were you dressed hygienically to work in the kitchen?</p> <p>When did you wash your hands?</p> <p>Did you cover any sores / cuts on your hands?</p> <p>Did you cough or sneeze over the food?</p> <p>Did you use a clean spoon each time that you taste tested food?</p> <p><i>For each of these questions explain your strengths and make recommendations on how to improve on weaknesses.</i></p>

2.4.1 Reviewing of dishes

Area to consider	What it includes
Organoleptic qualities of your dishes	<p>Appearance – What did your dishes look like? How did you control portion sizes? What dishes did you use to present your food on? What colours did your food have? What garnishes did you use? What presentation techniques did you use? Was the presentation neat? Where the dishes wiped down before service? What improvements could have been made to the presentation?</p> <p>Taste – Use sensory descriptors to describe the flavour of each of your dishes. Did you taste test your food as you were cooking? Did you alter the taste in any way? What improvements could have been made to the taste?</p> <p>Texture - Use sensory descriptors to describe the texture of each of your dishes. What was good about the texture? What improvements could have been made to the taste?</p>
Waste	<p>Were you left with any waste food? What did you do with the waste food? What could you have done with the waste food? What did you do with the food packaging? What could you do with the food packaging to be more environmentally friendly? <i>For each of these questions explain your strengths and make recommendations on how to improve on weaknesses.</i></p>

2.4.2 Reviewing own performance

Area to consider	What it includes
Decision making	<p>Do you feel that you made the correct choice of dishes? Would you change anything about them now that you have completed the assessment?</p> <p>Had you made the correct decisions on which equipment to use? Could you have used any other equipment?</p> <p>Had you made the correct decisions on which cooking methods to use?</p> <p>Could you have used any alternative cooking methods?</p> <p><i>For each of these questions explain your strengths and make recommendations on how to improve on weaknesses.</i></p>
Organisation	<p>Time – Did you use your time well?</p> <p>Were you able to serve each of your dishes at the correct temperature?</p> <p>Workspace, equipment and ingredients</p> <p>How did you organise your ingredients? How effective was this?</p> <p>How did you organise your equipment? How effective was this?</p> <p>How did you keep your workspace organised? How effective was this?</p> <p>Clearing up</p> <p>Did you clean your work area regularly during the assessment?</p> <p>How did your cleaning help you to prevent cross contamination?</p> <p><i>For each of these questions explain your strengths and make recommendations on how to improve on weaknesses.</i></p>

2.4.2 Reviewing own performance

Area to consider	What it includes
Planning	<p>What were the advantages of your chosen dishes? How did they meet the needs of the specific customer/provision and the requirements of the brief?</p> <p>What were the disadvantages of your chosen dishes? Did any aspect of your dishes not fulfil the brief? What could you have changed to improve these disadvantages?</p>
Time management	<p>How effective was your time plan? Had you made the correct decisions about how long the dishes were going to take to make? Did anything take more or less time than you had expected? Was your time plan in a logical order? Would you change the order if you were to make it again? Did your quality points ensure that you made a high quality dish? Did your contingencies help you to deal with any issues that arose?</p> <p><i>For each of these questions explain your strengths and make recommendations on how to improve on weaknesses.</i></p>