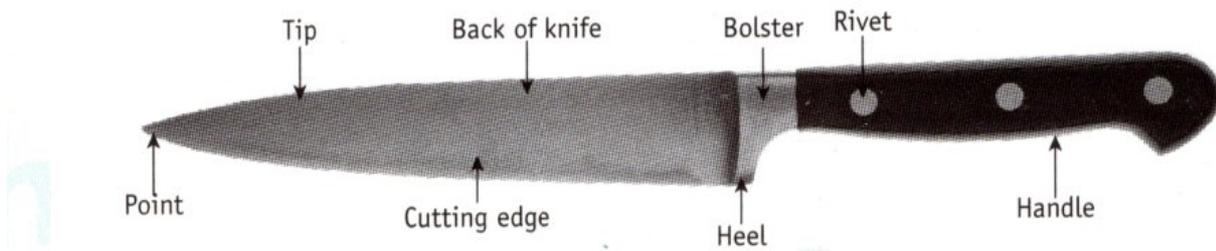


Use Food Preparation Equipment

Knives

Parts of a knife



Knife-handling techniques

- * Grip: Hold the handle of a chef's knife tightly with fingers curled and up against the heel of the knife. Having a firm but relaxed grip on the handle of the knife will allow for a more efficient cutting motion and will reduce the chances of the knife slipping, thereby preventing accidents.
- * Fingers of the free hand: These should be curled and used to hold the food in position. The curled fingers should be held at a right angle to the cutting surface, with the blade resting against the food and close to the knuckles of the hand. Move the free hand back as you cut, to ensure your fingers are free from the blade.
- * The blade: To use a chef's knife efficiently, the whole blade should be utilised. The tip of the knife is best used for fine work or cutting small items, the centre of the blade should be used for slicing, and the heel is for working on harder, larger items of food that require greater force.

Types of knives and their characteristics and use

- * Chef's knife: This knife is used for the majority of work in the kitchen. It's used for slicing, chopping and dicing food and is approximately 20-25cm in length.
- * Paring knife: Used for fine work and for cutting and peeling vegetables and approximately 7cm in length.
- * Turning knife: Has a curved blade and is commonly used for turning vegetables such as carrots or potatoes and to create garnishes. Turning vegetables are approximately 5cm in length.
- * Boning knife: Has a thin, flexible blade, making it suitable for removing bones from meat and poultry. The blade of a boning knife is narrow and approximately 12cm in length.

- * Filleting knife: Has a long, flexible blade and is predominantly used for filleting and skinning fish or filleting chicken. The blade of a filleting knife is narrow and approximately 25cm in length.

Knives can be sharpened on a stone that is lubricated with water or oil.

Suitable cutting surfaces

- * Yielding surface: Such as wood or high-density polyurethane plastic is a suitable surface. Most establishments use a colour-coded system or polyurethane chopping boards to reduce the risk of cross-contamination.
- * Unyielding surface: Such as glass, ceramic or marble will damage and dull the blade of the knife and may be slippery, which could lead to injury.

Safe work practices when using knives

- * Always ensure a knife is sharp.
- * Always cut away from yourself and curl the fingers of your free hand under to avoid cutting fingers.
- * When cleaning knives, never leave them in a sink of water or areas where they may be hidden from view.
- * Always clean and dry the blade of a knife with the cutting edge away from the palm of the hand.
- * Knives should be stored in an appropriate receptacle such as a knife block, magnetic knife rack, a knife roll or a drawer with slots to protect the blade.

Equipment for Food Preparation and Cookery

Examples of equipment

Equipment used in food preparation can be classified into 3 areas: Utensils, mechanical, and fixed equipment.

* Utensils come in many shapes and sizes and have many different purposes.

Measuring	Cutting and Slicing	Other	
<ul style="list-style-type: none"> * Scales * Measuring cups * Measuring spoons * Measuring jugs * Scoops 	<ul style="list-style-type: none"> * Vegetable peelers * Parisienne scoops * Bean slicers * Graters * Testers * Microplane * Channel cutters * Cheese slicers * Knives * Mandolins 	<ul style="list-style-type: none"> * Wooden spoons * Tongs * Slotted spoons * Ladles * Whisks * Palette knives * Meat mallets * Mixing bowls * Saucepans and frying pans 	<ul style="list-style-type: none"> * Colanders * Sifters * Chopping boards * Piping nozzles and bags * Thermometers

Mechanical equipment is operated by power, has moving parts and can be used for a variety of purposes. It's usually portable and designed to help a chef complete food preparation tasks more efficiently.

Fixed equipment is large and fixed in place. It's mainly used for cooking and storing foods, rather than preparation.

Mechanical		Fixed	
<ul style="list-style-type: none"> * Counter fryers * Juicers * Peelers * Food processors * Blenders * Hand mixers 	<ul style="list-style-type: none"> * Sandwich press * Electric knives * Salamanders * Mincers * Food mixers * Slicers 	<ul style="list-style-type: none"> * Ovens * Stove tops * Griddles * Salamanders * Deep-fryers * Bain-maries 	<ul style="list-style-type: none"> * Combi-ovens * Bratt pans * Sinks * Dishwashers * Refrigerators

Food

Types of food

The types of food chosen to prepare dishes in a commercial kitchen must be of good quality and as fresh as possible. Types of foods can be broken up into the coteries outlined on the following page (Page 4).

Type of Food	Description
Dairy products	Milk, cheese, cream, ice-cream, yoghurt, butter and custard.
Doughs	Breads, pizza doughs, flatbread, pita, naan, roti, lavash bread, Lebanese bread.
Dry goods	Wheat, maize, rye, pulses, barley, oats, seeds, pasta, rice, noodles, nuts, spices, herbs.
Fruit	Citrus, stone, hard, soft, tropical, melons and berries.
Meat	Lamb/mutton, pork, beef, veal, furred game and offal.
Pastry	Puff pastry, filo pastry and shortcrust pastry.
Poultry	Chicken, turkey, duck, goose, pheasant and other game birds.
Seafood	Fish, prawns, lobster, squid, oysters, pippies, Balmain bugs, crabs, scallops, abalone, sea urchins and mussels.
Vegetables	Leaf, root, fungi, stem, bulb, shoot, flower, tuber, rhizome, legumes, pulses and fruit.
General food items	Batters, coatings, condiments and flavourings, garnishes, oils and sauces.

Stock selection from stores

It's essential to follow stock rotation principles after purchasing and storing food items. The most commonly used rotation system is First In, First Out (FIFO). Data codes and rotation labels are also common stock rotation methods. FIFO requires food handlers to store new purchases behind older purchases to ensure ingredients are being used efficiently and effectively. Using FIFO principles will ensure food is used by its best-before date and before new items are purchased. Each establishment will have their own stock rotation policy, such as the use of bin cards or stock rotation labels, and it's essential that these procedures are followed.

Preparation

Safe and hygienic practices for food preparation

Food safety and hygiene are paramount when preparing food for public consumption in a commercial kitchen. When preparing food, there are some simple yet essential procedures that must be followed.

- * Hand washing: Correct and regular hand-washing procedures are the first defence against the spread of bacteria and other contaminants.
- * Personal hygiene practices: Food handlers should have high levels of personal hygiene.

- * Safe work practices: Food handlers should take precautions to ensure they are working safely as possible in the kitchen. Wearing correct footwear and uniform and other PPE is a safety requirement

Mise en place

‘Mise en place’ is a French term meaning ‘everything in its place’.

Tasks include:-

- * Ordering ingredients.
- * Correct selection of recipe.
- * Selection of required ingredients.
- * Weighing and measuring.
- * Selection and preparation of equipment.
- * Preparation of ingredients.

Work instructions

This is mentioned below.

Standard recipes

Standard recipe cards set out the name of the recipe, a list of ingredients, quantities required, equipment needed, cooking methods and temperatures, preparation times, garnishing, presentation and the number of portions. The method of preparation will also be included and often the standard recipe card will include costings and a photograph of the presentation of a dish.

The use of a standard recipe card makes sure all staff are aware of how each dish is prepared, what it should like and the size of the portion. It will also help maintain the quality of the product, control the costs of food items and minimise waste. Preparing dishes to a standard recipe will provide consistency in service and regular customers will know what to expect when they order a dish, thus increasing customer satisfaction.

Time and task management

Efficient and effective time management will have a positive effect on a hospitality establishment, including high staff morale, satisfied customers and increased profit.

Features of effective workflow

A workflow is the precise steps of a task, involving logical sequences, organisations, time constraints and cooperation.

- * Logical sequence: Tasks need to be organised using a step-by-step approach and logical order based on common sense.
- * Organisation: Every person in the kitchen has responsibility for their selection, with the head chef taking overall responsibility. Workers need to be organised and able to rely on each other.
- * Time constraints: Tasks must be done by a specific time or within a certain timeframe. Kitchen staff must meet their time constraints to avoid delays and food wastage.
- * Cooperation: All kitchen staff must cooperate and work together as a team to get tasks done.

Effects of poor workflow on the customer, colleagues and the business:-

- * Lead to a disorganised kitchen.
- * Have a negative impact on colleagues, customers and the workplace.
- * Mean colleagues are required to re-do tasks that were inadequately completed by others, which in turn can affect teamwork and lower staff morale.
- * Mean customers may be dissatisfied if they have to wait longer than expected for their meals, or if meals are of a low quality due to poor workflow.
- * Affect the workplace due to loss of business as a result of dissatisfied customers.
- * Cost workplaces and organisations money through waste of food and time.

Preparation of a range of ingredients

Ingredients	Preparation and Use
Dairy products	<ul style="list-style-type: none"> * Check the use-by or best-before date. * Milk should have a pleasant aroma and flavour, and a consistency and colour typical of the type of milk. * Cheese skin or rind should have no mildew or mould.
Dry goods	<ul style="list-style-type: none"> * Check the use-by date for freshness. * Products should be free from any mould, insect or weevil infestations. * Should be dry, free of moisture and undamaged.
Fruit	<ul style="list-style-type: none"> * Should have no bruising, blemishes, decay or insect damage, be of good colour, size and shape and have a fresh appearance. * Frozen fruit should be frozen in pieces.
Vegetables	<ul style="list-style-type: none"> * Should be clean, have no soil on them, and be a good colour, crisp and have no bruises, cuts, blemishes or signs of insect damage. * Frozen vegetables should be frozen separately.
General food items	<ul style="list-style-type: none"> * Should be within their use-by date, where applicable and high quality. * All packaging should be intact and undamaged.
Meat	<ul style="list-style-type: none"> * Beef flesh should be bright red with excessive fat or gristle. * Lamb flesh should be firm and dull red with a fine grain. * Veal flesh should be pale pink and firm with little fat. * Offal shouldn't have an unusual smell or colour and moist.
Seafood	<ul style="list-style-type: none"> * Fish fillets should be firm and translucent in colour with no bruising or discoloration. * Whole fish should have bright, clear and full eyes. * For frozen fish, packaging and food should feel completely frozen and show no sign of thawing.
Poultry	<ul style="list-style-type: none"> * Pork flesh should be pale pink and firm with a small rind and white fat that isn't excessive. * Poultry should have a white skin that isn't sticky and firm flesh.

Weighing and measuring of dry and wet ingredients

When weighing and measuring dry ingredients, the food handler needs to follow the standard recipe carefully and measure or weigh the dry ingredients accurately. Equipment that should be used to weigh and measure dry ingredients includes scales (electronic or manual) and measuring cups and spoons. Dry ingredients will always be measured in metric weights (kilograms, grams etc.) and by volume in cups, tablespoons and teaspoons.

Wet or liquid ingredients should be measured by volume (in litres and millilitres), using a measuring jug or liquid. To achieve the most accurate measurement when using a measuring jug it's best if the jug is on a flat surface and at an eye level.

Calculating and determine qualities and portions

Standard recipe cards will contain the quantities and portions that are commonly used when preparing a certain dish. However, there may be a time when a standard recipe needs to be increased or decreased. This is a process of multiplying or dividing quantities and should be undertaken with care. It's also important to note that a change in quantities can have an effect on the final product. Recipes are carefully crafted and the most successful recipes depend on accurate measuring and weighing.

Washing, peeling and trimming a range of food items

Preparing fruits and vegetables, meats, poultry and seafood are common tasks within a commercial kitchen. When preparing fruits and vegetables they must always be washed first to remove the trace elements of the chemicals and soil that may be on them. When trimming meats and poultry the food handler may be required to remove excess fat and sinew. Whole fish may need to be scaled, gutted and cleaned prior to filleting.

Precision cuts

Name of Cut	Size	Shape	Use
Brunoise	3mm	Very fine dice	A garnish for:- * Soup * Dips * Canapés.
Chiffonade	Very fine	Shredded	* Base for dishes * Ingredient in sandwiches
Concasse	Seeds and skin are removed and then it's roughly chopped, usually diced.		* Sauces or soups * Salsa * Bruschetta
Jardiniere	4mm x 4mm x 20mm	Small baton	A garnish for:- * Soup * Salads * Appetisers.
Julienne	3mm x 3mm x 40mm	Matchstick	* Stir-fry vegetables * Garnishes
Macedoine	8mm	Dice	* Soups * Potato salad * Fruit salad
Mirepoix	Roughly cut		* Stocks, soups and sauces
Paysanne	1mm-2mm x 15mm (thin cuts)	Variety of shapes:- * Squares * Triangles * Circles	* Garnish for soups

Portioning and standards cuts of meat, poultry and seafood

This is mentioned below.

Meat

Standard cuts of meat that are used in food preparation include rump, fillet, blade and sirloin. Equipment includes knives, meat mallets, chopping boards, mincers and meat slicers. Meat should be portioned according to the standard recipe card for each dish and weighed using scales to ensure portion sizes are correct, for example, portioning a whole Scotch fillet into 200g steaks. Storage for meats should be below 4 degrees Celsius for fresh meat that is going to be used within 2 days.

Poultry

Poultry includes chicken, turkey, game fowl and duck. Common cuts of poultry include breast, wing, thigh, leg and tenderloin. Equipment includes knives and poultry shears to cut through the bone easily. The type of poultry used should be chosen to best suit the recipe and the items should be trimmed and prepared to create minimum wastage. Storage for poultry should be below 4 degrees Celsius for fresh poultry that is going to be used within 2 days and any other portions can be frozen.

Seafood

Fish and other seafood should be bought as fresh as possible and only when needed. It's important when weighing and portioning seafood to take into account the weight of bones and shells, particularly when buying whole fish, shellfish or molluscs. Fish can be filleted, made into cutlets or darnes (steaks) or served whole. Shellfish are often served whole or as a part of a dish. Equipment include knives, fish scalers, oyster knife and kitchen scissors. Seafood create a lot of wastage. Re-using bones, heads and prawn shells in stock is a good way to reduce wastage. It's best to store seafood between 1-3 degrees Celsius until needed.

Environmentally friendly work practices and waste minimisation

Environmentally Friendly Work Practices	Waste Minimisation
<ul style="list-style-type: none"> * Responsible use of resources, water and energy is essential. * Kitchen waste can be managed by ensuring that recyclables are stored from non-recyclables by providing different and clearly marked receptacles in the kitchen. 	<ul style="list-style-type: none"> * Purchase correct quantities of commodities. * Use effective food storage practices in the coolroom, freezer or dry store - First In, First Out (FIFO) is the most commonly used stock rotation system. * Don't precook large amounts of food for an a la carte menu as these items may not be used and will contribute to food waste.