space planning
Planning is one of the most important tasks for this busy space in a family home. Often both partners within the household work and share kitchen duties at breakfast and dinner time. Older children make their own snacks after school or extended family share in the food preparation. Therefore it is important to ensure the kitchen plan is practical and safe so that people can move around and access appliances and cabinetry without injury or stress.

Professional kitchen designers are trained to design kitchens to accommodate the work centres and traffic flow. But here are some tips for you to consider when thinking about how you want your kitchen space to function.

Work triangle - the three main functions of the kitchen are storage of food, preparation/cooking of food and cleaning up. The normal sequence is foodstuffs coming into the kitchen and being stored in the refrigerator and pantry. Food preparation normally takes place on the bench near the sink, and is then cooked in the oven/microwave/cooktop and served. Clean-up takes place at the sink and dishes stacked into the dishwasher, and left over food goes back to the refrigerator.

Guideline measurements between the work centres (work triangle)
Refrigerator to sink 1500 to 2000mm
Sink to cooktop/oven 1500 to 1750mm
Cooking to refrigerator 1500 to 2500mm
Ideal totals to avoid fatigue 4500 to 6250mm
and allow ease of access

multi-functional spaces
Other considerations for a multi-use kitchen may include dining space, hide-away laundry, office desk/computer for homework, television or music, socialising with bar and stools for drinks/snacks. This kitchen below has the cooking centre and bench space for food preparation to the left, refrigerator and pantry to the right for food storage, and the sink and clean-up centre positioned in a separate island which also doubles up as a socialising/dining area with bar stools for guests to interact with people working in the kitchen.
kitchen layouts

one wall kitchen
This layout is ideal for small spaces and apartments and is usually economical. It can be concealed behind cabinetry so that it looks more like a large wall of floor to ceiling doors. One of the limitations is that there is usually a shortage of bench space which is required either side of the sink, hob and beside refrigerator/oven/microwave.

The picture shows a ‘flat pack’ kitchen, which is popular in small studio apartments or motels.

galley kitchen
This style is positioned between two walls, sometimes called a corridor kitchen as people walk right through the middle of it to access other spaces. A good work triangle can be achieved and it usually provides good bench space. As people walk through the space it is important to allow 1500 to 1800mm clearance space between the opposing benches/appliances so people can pass and avoid clashing, e.g. dishwasher and oven doors being opened at same time.

L-shaped kitchen; L-shaped with island
This is an efficient plan that provides a good work triangle and adequate bench space. If an island is incorporated you will need to allow 1200mm clearance between island and fitted bench for pullout drawers and opening appliance doors. Generally kitchen planning is to ensure the cabinetry can be accessed by the people working in the kitchen, the bench space and shelves can accommodate the supplies and equipment and the layout of kitchen meets the needs of the people living in the residence.
U-shaped kitchen

This layout is often compact and works well as it allows good bench space and storage space. There is no through traffic in the work area, but does have two corners that are always more difficult to access - pull-out baskets within the cupboards are a good solution for corners.

An area for food storage and preparation is often positioned near the refrigerator and pantry where incoming groceries are unpacked and then stored away. Vegetable baskets may be used for potatoes, onions etc that do not need chilling. A work area for making snacks, mixing drinks or preparing non-cooked breakfasts may be positioned near the refrigerator and pantry for ease of access to the stored foodstuffs.

services

electricity

It is important to plan where light switches and power-points will be positioned for safety and convenience. Air switches are a good option for wet areas e.g. waste disposal unit. Always ensure the appliance installation guidelines are followed as they vary from brand to brand. High levels of overall lighting are needed for hygiene and safety within the kitchen, and around cooking appliances extra task lights should be installed.

Accent lighting under cupboards for instance highlights design features. Ventilation is required to remove cooking odours, grease, smoke and steam; either a rangehood above the cooking area or downdraft alongside hobs or in an island unit is usually installed to take care of this task.

gas

Gas hobs are particularly popular with cooks, and gas can be connected to the house from a street supply in many areas today. Alternatively a large gas bottle can be stored outside and piped to the kitchen, or a smaller gas bottle can be stored in a cupboard close by the cooking or heating equipment.
plumbing

A direct water supply is needed to the sink and dishwasher, and some other smaller appliances such as icemaker, water cooler or coffee machine. Mains pressure enables supply of equal water pressure of hot and cold water and is therefore suitable for single-lever taps and faucets. Dishwashers, food-waste disposal units and washing machines need to be connected to the waste water system.

safety tips

- Do not position an oven or cooktop near a door, or a gas hob under a window - ensure curtains cannot catch fire, blinds are safer.
- Do not have electric powerpoints too close to the tap or source of water - use air-switches for added safety near water supply.
- Never overload electric powerpoints with too many appliances - always check appliance technical specifications for wattage levels.
- Store knives and utensils with sharp blades or points in a block or rack, and out of reach of young children.
- Select ovens and cooktops with childproof controls which are located out of their reach - also turn pot handles inwards when cooking.
- Ceramic cooktops should have a light that shows when the elements are on so that nothing combustible is placed on top when hot.
- Rounded corners on benchtops and islands are less hurtful to head and hips than sharp corners and hard edges.
- Install a smoke detector in close proximity to the kitchen (not in the kitchen) and keep a fire extinguisher accessible in the event of fire.
- Store regularly used items within easy reach and less often used items in higher cupboards - use sturdy kitchen steps to reach high shelves.
- Electrical cords should be kept neat and not dangling over the edge of bench or cooktop where young children can pull on them.
- Protruding knobs and handles can cause injury if bumped into, the “D” shape handles are smoother and also easy to grip.
dimensions

Good levels of lighting are important for safety - in this kitchen there is additional task lighting over the cooking centre. The height to install a microwave should be roughly 1250mm from floor, and the height of a top shelf below 1800mm. The bench is usually 900 to 950mm high with a depth of 600 to 650mm to accommodate appliances such as built in oven or dishwasher.

materials and finishes

All surfaces in the kitchen need to be water-resistant, hygienic and easy to clean, as well as durable and hardwearing, especially the flooring and benchtop materials that get the most use.

flooring

This should be quiet to walk on, slip resistant and resilient as it is subject to a hard life and spills. Timber is a popular choice but must be sealed to prevent liquids seeping into the boards. Cork tiles provides comfort under foot and are quiet to walk on as well as hard-wearing, but again must be well sealed to avoid water penetration into the cork or joins. Natural stone, terracotta, ceramic tiles and polished concrete are other options but are not forgiving if glassware is dropped and can be noisy and hard to walk on. Vinyl is a cost effective and practical option.

benchtops

This surface needs to be heat resistant, non-porous and hard wearing. High pressure laminate meets the requirements for resistance to heat and abrasion, and available in hundreds of patterns and colours. It is the most extensively used option.

Benchtops can be coloured to Resene colours using Resene ArmourCat acid catalysed finish - professional spray application is required.

Timber worktops give a country look to a kitchen and are usually made of wood strips laminated together with glue to give them more stability. Stainless steel is a very durable material, heat resistant and hygienic as it has no joins if integrated with the sink and therefore bacteria cannot build up.

Solid surface benchtops are also seamless and made from acrylic-type materials that are stain resistant and offer design flexibility. Terrazzo is made with chips of granite, marble or glass set into resin or concrete. Natural stone such as granite is also a popular choice and extremely hardwearing, although is one of the more expensive materials. Granite bonded with quartz granules is available in thinner slabs, which are reinforced with fibreglass backing.
There are several edge details offered in most benchtop materials - square edge, bullnose (rounded) edge, sharknose (undercut) and arris which is square with slightly rounded edges.

cabinetry
Cabinet materials should also be easy to maintain and not show fingermarks. Low pressure laminates are used extensively for cabinet construction - it is dense fibre board which has been factory coated with a melamine surface over the decorative paper which gives the colour and pattern/finish.

The other option is to paint or lacquer cupboard doors and drawer fronts. If painting, use Resene Enamacryl for a glossy hardwearing finish or select another Resene waterborne enamel. The hardest wearing Resene kitchen finish for cabinetry is Resene ArmourCat, which requires professional application. Paint offers the largest range of colours which can be teamed up to match or contrast with benchtop materials. Natural timber gives a warm feel to cabinetry - either solid timber or timber veneer. Glass sandblasted or coloured on the back, is another option for cupboard doors and is usually set into a metal or timber frame.

walls and ceilings
These surfaces need to be resilient to withstand steam and easy to wipe clean. The wall areas behind the cooktop, sink and where cooking appliances are used need to be especially durable - coloured glass splashbacks, glazed tiles or stainless steel are all options that are resistant to heat and ignition.

Painted walls and ceilings are the most popular finish, Resene SpaceCote Low Sheen Kitchen & Bathroom waterborne enamel provides a durable and easy to clean finish, with a multitude of colours to select from or use Resene SpaceCote Low Sheen if darker or brighter colours are planned.

In this kitchen the warmth of the timber cabinets works well with the cooler teal walls in this kitchen. The copper rangehood also adds a warm lustre.
style

Crockery and accessories set the theme and style of a kitchen, whether it be farmhouse or country style, modern and sleek, or bright and casual. And everyone has had boiled eggs and toast fingers...

Styling is when you stamp your individuality on the kitchen, normally in conjunction with the theme of the rest of the house. Traditional styles come from past generations whereas contemporary reflects current society and lifestyle, and eclectic usually means mixing styles from various periods of time.

Both of these kitchens have timber cabinetry but are totally different in style. The one on the left is a cluttered country style, busy and homely. The one on the right is more streamlined with a black granite bench, and glass cupboard doors with metal frames on the back wall. The styling of accessories is the French wall baskets for the country kitchen, and modern rubber kitchen utensils for the streamlined kitchen.

The pale green wall colours in this kitchen provide a cool and calm feel within the space, but certainly not cold. Variations of colour intensity, the introduction of different gloss levels with glass and metal, as well as the texture and warmth of the timber, all work together in harmony. Try greens such as Resene Wasabi, Resene Spirulina and Resene Coriander.
achromatic
This is an achromatic colour scheme - black, white and grey (silver) only have been used, no colour. High tech, almost like a restaurant kitchen style with lots of stainless steel, black rubber flooring and commercial equipment. The result is sleek and futuristic, but can feel a little cold.

Try colours from the Resene metallic range, Resene Nero and Resene Alabaster.

white

White has always been a popular choice for areas where cleanliness and hygiene are important, as shown in these kitchens. The one on the left shows white glossy cabinets with long drawer pulls that gives a strong horizontal line to the space. The splashback is coloured glass. The kitchen in the middle has white walls and ceilings teamed with lots of stainless steel, and the kitchen on the right is a fold-out unit which can be concealed behind the white cupboard doors when closed up. Try colours such as Resene Alabaster or popular off-whites such as Resene Sea Fog or Resene Quarter Spanish White.

Storage is important in any space. The pullout drawer is a great way to use difficult to access corner space and the floor to ceiling shelves may be hidden away in a scullery but it is easy to find what item you are looking for with open style shelves.

red

Red is often referred to as the colour to increase the appetite, but may be overbearing for some people in such a busy area. However there are always red kitchen appliances and accessories to add a bit of zest. Glossy red cabinets look good with lots of glass and stainless steel. The kitchen to the left has a strip of red wall tiles as a backdrop to an open style kitchen benchtop in a warehouse apartment.
Try colours such as **Resene Dynamite**, **Resene Pohutukawa** or **Resene Fahrenheit** and offset with neutrals such as **Resene Tea**.

Neutral colour schemes are probably one of the most widely selected for kitchen spaces as they are calming and uncomplicated in an area where there is usually lots of activity and equipment. Pale timbers, beige and taupe paint colours, cream benchtops, grey and charcoal finishes.

Choose colours from the Resene whites & neutrals collection. Neutrals are easy to work and live with and can be jazzed up by accessorising with fresh flowers, funky coloured appliances, coloured tea towels, etc.

**Evolution**

It is absolutely amazing how far we have come in regard to choice of materials and appliances since these old kitchens were built - dating back to the 1940s on the left when there were only two or three appliances - sink, cooker and cooler - the kitchen was sited on the south side of the house before refrigeration so perishable food kept cool in the larder or safe.

In the 1970s the kitchen was opened up to the dining/living room because we could vent out cooking odours with rangehoods and dispose of food waste in trash compactors etc. Supermarkets introduced pre-packaged convenience foods and new time-saving appliances were designed such as dishwashers, microwaves, food processors, coffee pots and sandwich makers.

Now most kitchens have a larger number of appliances to accommodate including breadmakers, espresso machines, icemakers, water purifiers, recycling centres and so the list goes on. The other influence on kitchen designs is the fusion of food cultures, international travel and televised cooking shows.
future
So where to from here?

Here are some examples of futuristic kitchen equipment with computerised programming and multifunctional appliances. Versatile living areas will replace the spatial boundaries of the past... and more timesaving devices will drive technology.

compiled by
• Colourwaves - Jill Carroll