

CHAPTER 2

Let's get cooking

ACCESS PRIOR KNOWLEDGE

- 1** List and detail the sections of a recipe.
- 2** Suggest three different types of other useful information found in a recipe.
Explain why this information is useful.
- 3** In food preparation, cutting is often the first task. Identify the best piece of equipment for cutting a tomato – a paring knife, a cook's knife or a serrated knife. State what task or process you would complete with the other knives that you did not choose.
- 4** Describe how you can ensure you have accurate measurements when making a cake.
Demonstrate this to a partner.
- 5** Identify and explain two cooking methods that are completed when using the oven or stove top.
Name one food item that you could cook using these methods.
- 6** List the best types of materials for bowls when you are cooking or heating in a microwave.
State two food items that you could cook or heat in the microwave.

2.1 The first steps in food preparation

Cooking food is a science, and understanding the way food behaves when you prepare, stir, **bake**, freeze or

bake To cook in an oven with currents of hot air surrounding the food.

design plan The plan you will follow to make the food product.

resource Something you use to achieve what you want to do. For example, in food preparation this could be money, time, available food and your skills.

process it in other ways will help you not only to enjoy and have success in food preparation, but also to be able to make changes to suit different **design plans** and **resource** options.

We eat food every day. However, often we do not think about what we are eating, how it has been prepared and where it has come from.

2.1 LET'S COLLABORATE

In pairs, develop a list of the foods that you have eaten today. Place a tick next to the foods that you had to prepare. Place a cross next to the foods that required no preparation at all. Circle the foods that involved a preparation process at home, in a factory or in the canteen. Compare your answers with those of your partner.

In the preparation of a lot of the food you consume, a series of steps or processes has been followed to achieve a consistent result. Most of the food you eat must first be cut up and perhaps have other ingredients added and cooked before it is eaten. All these processes use many different types of tools and equipment.



Figure 2.1 Ready-made food is designed to make your life easier, but you still have to read the instructions in order to get the best results.

Reading a recipe

Recipe books have been around since the fourth century, although it is only much more recently that the quantities of food ingredients began to be included. Processed food such as instant noodles will have a recipe or a set of instructions printed on the packet. These directions may be simple or require more knowledge to achieve a successful final product.

The preparation of a lot of the food you consume would have followed a series of steps involving carefully calculated and measured amounts of different foods to give the best results.

key foods The main food groups – cereals; fruits and vegetables; meat, poultry and seafood; nuts and legumes; dairy and dairy products, eggs; fats and oils.

There are many different **key foods** and ingredients, and a wide variety of cooking and preparation techniques. Each key food has a distinct set of

sensory, physical and **chemical properties**. These properties of food change when they are prepared or cooked. The ways in which a food changes when prepared or processed will depend on the **functional properties** of ingredients.

A recipe is an excellent example of *procedural or instructional text*. It provides an aim or goal, materials to be used and the steps that need to be taken to complete the process. Steps contain verbs setting out the action and text words about how, when, where and for how long.

sensory properties

The characteristics or properties of food that are detected by the five senses: smell, touch, taste, hearing and sight.

physical properties The individual characteristics of food, such as size, shape and colour.

chemical properties

Include all natural chemical parts of food, such as nutrients, acids, alkalis and enzymes; in processed food, they include additives.

functional properties

What the ingredients of food actually do when the food is prepared and/or cooked – for example, an egg will set when it is heated, so this makes it useful to thicken sauces.



Laksa



SERVES 2

Method

Heat a little oil in a frying pan over medium heat. Add 2 tablespoons of laksa paste and cook until fragrant. Pour in 1 cup of coconut milk and 1 ¼ cups of water. Simmer for 2 minutes. Add 100 g vermicelli noodles, 8 sliced green beans, 8 snow peas and ½ carrot, sliced thinly. Simmer on low for 5 minutes. Ladle laksa into two bowls to serve and garnish with one spring onion sliced diagonally, a handful of bean sprouts, fresh coriander and Vietnamese mint.



RECIPE

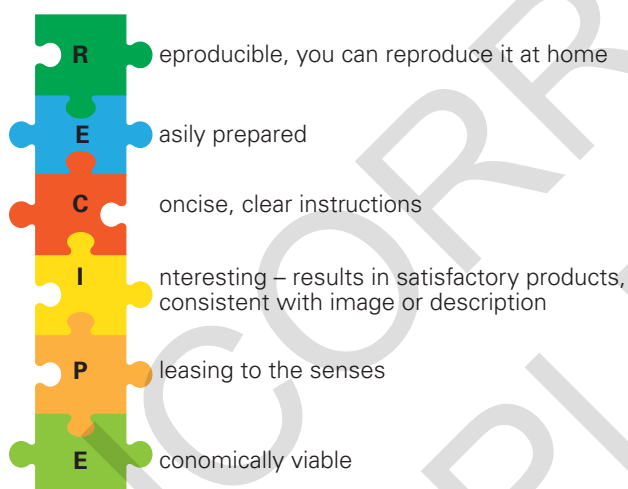


Figure 2.2 A good recipe is written in procedural text and has all these features.

2.2 LET'S COLLABORATE

- 1 In pairs, compare the laksa recipe above with the Fruit in a Cone recipe on p.42. Select three features of a good recipe and discuss whether each recipe meets these requirements. Use examples from the recipes to justify your decisions.
- 2 The laksa recipe is not presented in a user-friendly way; nor is it written in the correct format. Rewrite the recipe, ensuring you include each of the sections found in a recipe.

2.3 ACTIVITY

A cultural experience

Laksa is a Malaysian recipe.

- 1 Name a piece of equipment that would be used in the process of producing this recipe.
- 2 When eating laksa, an Asian soup spoon and chopsticks are used. Practise eating your laksa with chopsticks.
- 3 Investigate two other traditional Malaysian dishes. When looking for these recipes, think about why someone allergic to nuts must be extremely carefully when eating this culture's cuisine.

Fruit in a cone

recipe title

Main tools and equipment

tools and equipment needed

Chopping board, knife, mixing bowl, wooden spoon, measuring spoons

Production skills

Slicing, dicing

making skills used

Cooking processes

Toasting

cooking methods used

Ingredients

SERVES 1

number of servings or quantity made



Preparation time: 20 minutes

cooking time









Serving and presentation time: 5 minutes



Total time: 25 minutes

list of ingredients and quantities required

			
¼ kiwi fruit	6 raspberries	6 blackberries	6 blueberries
			
2 tablespoons berry yoghurt	1 waffle cone	1 teaspoon slivered almonds	

Get creative. How will you present this summer treat?

Method

step-by-step instructions

- 1 Collect and prepare the fruit.
- 2 Combine the fruit and yoghurt if this is how you are going to present your summer treat.
- 3 Spoon the fruit and yoghurt into a waffle ice-cream cone.
- 4 Place slivered almonds in a frying pan over a low heat. Stir with a wooden spoon until they turn a light golden-brown. Keep a close eye on them at all times, taking care not to let them burn.
- 5 Sprinkle fruit mixture with almonds. Serve immediately.

method of pre-preparation of ingredients

method

serving and preparation

Figure 2.3 A recipe contains several parts to help it to achieve its outcome.

Each recipe tells a different story

What do the different parts of a recipe tell you?

Recipe title

Gives you a clue as to what the end product will be.



2.4 LET'S COLLABORATE

'Banana flower salad': Explain what you think the end food product might look like if this were the recipe title.

Ingredients list

This is a list of the food items or ingredients required to make this food item and the amount or quantity of each ingredient. In some recipes, the preparation technique for each food item is included in the ingredients list. For example, '½ onion, diced'. As you become more experienced, the food items can be varied to suit different tastes, likes, dislikes, health requirements (low fat, low salt) or allergies (no nuts). Varying a recipe often requires knowledge of the science of food.



2.5 ACTIVITY

Ingredients

- 1 Identify the recipe you might be preparing with these ingredients:
250 g chicken thigh, diced
¼ teaspoon cumin
¼ teaspoon chilli powder
¼ teaspoon paprika
50 ml yoghurt
- 2 Be creative and list five other ingredients that could be included in this recipe.
- 3 Prepare the recipe and serve it on a bed of rice.
- 4 Conduct a sensory analysis – comment on the taste, texture, appearance and aroma.
- 5 Explain the aroma as you were cooking off the spice ingredients.

Method of preparation

This section gives you instructions on the processes used to prepare the ingredients, and the tools and equipment required. It also includes advice on cooking times and temperatures if the food is to be cooked. Sometimes the temperature is descriptive, such as hot, or in degrees Celsius (i.e. 200°C). The advice may also include clues to look for when an item is cooked – for example, 'fry until golden brown'.



2.6 LET'S COLLABORATE

If you were told in the method of preparation section of the recipe to steam and you did this in a bamboo steamer, what might you be making?

Other details

A recipe also includes quantities or portion serves and assembly instructions – for example, putting a pie together. Many recipes in books and magazines and on packets include a photograph to give the consumer an idea of what the food should look like when finished, and serving suggestions. Note that recipes do not always give details of the correct equipment to use, so you often have to make this decision yourself.

Be a food photographer. Prepare the Fruit in a Cone recipe on p.42. Present the food as it might be seen in a food magazine. Take a photo. Compare your photo to a photo in a food magazine. Evaluate your presentation and photography skills. Explain how you could improve these skills for future food shots.

Below is a recipe for a Greek tzatziki (yoghurt and cucumber dip). This can be served with fresh vegetables such as radish, celery or carrot sticks. It can also be used to serve with the Five Foldover (p.56) or Spicy Tortilla Triangles (p.62).

How else could you use the Tzatziki Dip on p.44? Investigate others ways in which tzatziki is used in Greek cuisine.

Tzatziki (yoghurt and cucumber dip)

Main tools and equipment

Knife, chopping board, non-slip mat, small bowl, spoon, measuring spoons

Production skills

Measuring, dicing, chopping, mixing

Ingredients

		
1/3 Lebanese cucumber, diced	3 tablespoons (1/4 cup) Greek natural yoghurt	1 clove garlic, crushed and finely chopped
		
1 teaspoon mint, chopped	1/2 teaspoon lemon juice	Salt and pepper

Method

- 1 Dice cucumber into 0.5 cm cubes, leaving the skin on.
- 2 Stir the yoghurt and garlic together.
- 3 Combine the yoghurt mixture with the cucumber and mint, stirring in thoroughly.
- 4 Add the lemon juice.
- 5 Season with salt and pepper to taste.
- 6 Cover and store in the refrigerator until ready for use.

SERVES 2



Preparation time: 10 minutes



Serving and presentation time: 5 minutes



Total time: 15 minutes





2.7 ACTIVITY

Breaking down the basics

Referring to the tzatziki recipe, complete the following:

- 1 Identify which ingredients are combined first:
 - a cucumber and mint
 - b yoghurt and garlic
 - c yoghurt, cucumber and mint
 - d lemon juice, salt and pepper.
- 2 List the ingredients you add to the first mixture of combined ingredients.
- 3 Identify which of these ingredients is not needed for this recipe:
 - a lemon juice
 - b pepper
 - c sugar
 - d cream
 - e salt.
- 4 List the preparation technique suggested for the garlic and cucumber.
- 5 Name the ingredients you think provide the flavour in this dish. Suggest one other ingredient that could be used to flavour this dish.
- 6 This recipe makes enough tzatziki to serve two people. To serve four people, you would need to do which of the following:
 - a halve the measurements
 - b double the measurements
 - c investigate a recipe that serves four.
- 7 As the recipe makes enough tzatziki to serve two people, how much yoghurt would you use to serve only one person:
 - a 1 tablespoon
 - b $\frac{1}{2}$ cup
 - c 6 tablespoons
 - d $1\frac{1}{2}$ tablespoons?
- 8 List all the terms that are instructions about processes used to prepare the food. One example is 'dice'; try to write down at least five extra terms. Provide a definition for each of these terms.
- 9 Explain why you think the recipe suggests the salad should be stored in the refrigerator until required.

2.2 Following an order of work

A clear sequence or order of work is necessary to produce a quality product, along with accurate use of tools and careful presentation.

Changes can be made with knowledge of ingredients and functional properties of food. In new food product

development, you can work with a basic recipe and make changes to suit different requirements – for example, to increase the fruit content in a muffin or produce a low-fat muffin. Basic recipes can be adapted to make quite different products. For example, bread dough can be made into a loaf, pizza base, rolls of all sizes and shapes, and sweet bread.



2.8 ACTIVITY

Divide and separate

Sometimes a recipe is not divided into ingredients and method sections. The ingredients and method might be included together in one recipe, as in the Chinese Fried Rice recipe below. Read the recipe, then answer the questions that follow:

Chinese fried rice



CHINA

Heat 1 teaspoon of oil in a frying pan and fry the beaten egg until it is set. Lift the cooked egg out, roll it up and slice into thin strips. Add another 3 teaspoons of oil and fry $\frac{1}{2}$ diced onion until it is soft and then add 1 clove of crushed garlic and fry for 30 seconds. Add 50 g prawn meat or shrimp and stir until it is cooked. Add $\frac{1}{4}$ cup frozen peas and cook for 2 minutes. Add $\frac{1}{2}$ cup of bean shoots. Cook for 1 to 2 minutes. Add 2 cups of cold cooked rice and 2 teaspoons soy sauce, stir gently and cook for one minute. Divide the mixture into 2 serves and place on warm serving plates.



- 1 Rewrite the recipe in a format that is more easily followed. Put the ingredients in a separate list and then logically sequence the steps in the method. Follow the sequential format from the Fruit in a Cone recipe on p.42.
- 2 Identify three problems you can see with the recipe, such as preparation and equipment instructions that should be provided to make it clearer. Compare your suggestions with those of other students.
- 3 Slicing, dicing and beating are three preparation techniques. Select one and describe the process in your own words.
- 4 Find out what 'garnish' means. Suggest other possible garnishes for this dish.
- 5 List all the equipment that is used to measure the ingredients.
- 6 Suggest two alternative ingredients that could be used in this recipe. Justify your choices.
- 7 Describe the preparation and cooking times that will be needed for these alternative ingredients.
- 8 Explain why a wok was chosen as the cooking equipment used to prepare this recipe.
- 9 Discuss the importance of using a high heat when cooking with a wok.

REFLECT ON LEARNING

- 1 Explain why it is important to have a well-written and clearly presented recipe.
- 2 Write down three types of information that you get from an ingredients list in a recipe.
- 3 Describe two important types of information provided in the method section of a recipe.
- 4 List two other types of information that may appear in a recipe.
- 5 It is possible to modify a recipe. Suggest what information you would need to do this.
- 6 Describe a situation where you might want or need to modify a recipe.

2.3 Measuring accurately

An important aspect of preparing food and following a recipe is knowing how to measure ingredients and the correct equipment to use. In most recipes, a level of accuracy is essential for a good edible outcome. For example, when you watch a TV program on making a stir-fry, the chef appears to be randomly throwing ingredients in with a splash of sauce and a sprinkling of salt and chilli powder, but this is based on years of experience. An excess of chilli powder would make the dish inedible, as would a tablespoon of soy sauce instead of one teaspoon. Cooking is a science: correct proportions are essential for the right chemical reactions to occur.



Historically, recipes seldom listed quantities and technique was rarely mentioned. Recipe books were really only for the wealthy.



2.9 ACTIVITY

Calculating measurements

- 1 A recipe requires $\frac{3}{4}$ cup of flour, yet there is no $\frac{3}{4}$ cup in the set. List your options.
- 2 A recipe requires $\frac{2}{3}$ cup of flour. Identify what you will use to measure it.



Figure 2.4 Ensure success by measuring your ingredients using the correct equipment.

Using scales

Some recipes use weight measurements rather than cups, as they are often considered more accurate. Scales may be digital, balance or spring balance.



Banana smoothie



Main tools and equipment

Measuring jug, measuring cup, measuring spoons, glass, blender

Production skills

Measuring, blending




Ingredients

		
¾ cup low-fat milk	½ cup plain yoghurt	1 ripe banana, roughly cut
		
1 tablespoon rolled oats	1 teaspoon honey (5 ml)	1 pinch of nutmeg

Method

- 1 Mix the milk, yoghurt, banana and rolled oats in a blender. Blend until smooth.
- 2 Add the honey and blend until combined.
- 3 Pour into a glass, sprinkle with nutmeg and serve.

SERVES 2

-  Preparation time: 10 minutes
-  Serving and presentation time: 5 minutes
-  Total time: 15 minutes



2.10 ACTIVITY

Let's measure

Make a smoothie or milkshake.

- 1 Measure ¾ cup milk. Calculate how many millilitres this is.
- 2 List what will be used to measure ½ cup yoghurt.
- 3 List what will be used to measure 5 ml honey.
- 4 Investigate other fruits you could use in this smoothie. Name five options.
- 5 Smoothies are seen by many as a healthy drink or food item. Thinking about the ingredients that can be added to a smoothie, explain why this might not always be the case.

Blueberry good banana muffins

Main tools and equipment

Sieve, muffin tin, oven, fork, large bowl, large spoon, measuring spoons, measuring cups

Production skills

Mashing, sifting, mixing, folding, whisking

Cooking processes

Baking

MAKES 6–8 CUPCAKE-SIZED MUFFINS



Preparation time: 15 minutes



Cooking time: 20 minutes



Serving and presentation time: 5 minutes



Total time: 40 minutes

Ingredients

				
1 cup self-raising flour	1/4 teaspoon ground cinnamon	1/4 cup sugar	1/2 cup frozen or fresh blueberries	1 ripe banana, mashed
				
1 egg	2 tablespoons vegetable oil	90 ml milk		

Method

- 1 Prepare cup-size muffin tin. Place cupcake cases or patty pans into a muffin tin.
- 2 Preheat oven to 180°C.
- 3 Sift the flour and cinnamon. Add the sugar.
- 4 Add the berries and banana and gently stir the flour mixture through the fruit.
- 5 In a small bowl, whisk together the egg, vegetable oil and milk.
- 6 Add the liquid ingredients to the flour mixture. Lightly combine. Do not over-mix.
- 7 Spoon the mixture into the cupcake cases, filling each case just over $\frac{2}{3}$ full.
- 8 Bake for 20 minutes, or until golden brown.





2.11 ACTIVITY

Weight vs measurement

- 1 The Blueberry Good Banana Muffins recipe on p.49 includes 1 cup self-raising flour. Test the weight of the flour on scales.
- 2 Investigate the weight of $\frac{1}{4}$ cup sugar.
- 3 Compare the weight of $\frac{1}{4}$ cup white granulated sugar, $\frac{1}{4}$ cup caster sugar and $\frac{1}{4}$ cup self-raising flour. Identify which is the heaviest.
- 4 Check your measuring accuracy. Make the muffins.

REFLECT ON LEARNING

- 1 Describe one rule to remember when measuring dry ingredients to make sure the measurement is accurate.
- 2 List what equipment you will use to measure 100 ml of milk to make sure it is an accurate measurement.
- 3 Suggest when weight measurements are used in food preparation.
- 4 Describe the different types of scales available in your school.

2.4 Using the right equipment

In many food-preparation tasks, hands are the easiest tool to use. Think of all the food-preparation tasks that are completed using your hands. Kneading dough can be done with electrical equipment, but hands will do the task just as well.

A knife is the most common preparation tool. Most of the food you eat will have been cut up first before it is further processed or cooked. A tool as simple as a knife is used to cut the food and more complex equipment like a stove is used for cooking.

To save time, many small appliances are designed to speed up the process of food preparation and cooking. For successful cooking, it is important for you to know the tools and equipment that are used, what they can do and how to use them. Correct tools and equipment will achieve better results, increase safety and reduce preparation time.



Figure 2.5 Have you seen these tools in the kitchen at home? Do you know what the purpose of each item is and how to use it?

Knives

A good knife is made up of several different sections, each with a specific function (see Figure 2.7). Mastering basic knife skills is the single most important aspect when it comes to improving your confidence in the kitchen. A good knife is your most valuable piece of kitchen equipment. It must be treated with care and looked after to ensure that it continues to fulfil all its functions. A good knife that is well looked after should last a lifetime. Chefs and some homes have a vast selection of knives, as manufacturers design different knives for different purposes. The most common knives are the paring knife

serrated A serrated knife has a jagged, saw-like edge; it is usually used for bread but is also good for cutting tomatoes.

and the cook's knife. Most cooks can complete a range of tasks with just these two knives. Many homes also have a **serrated** knife for cutting bread.



Figure 2.6 A serrated knife.

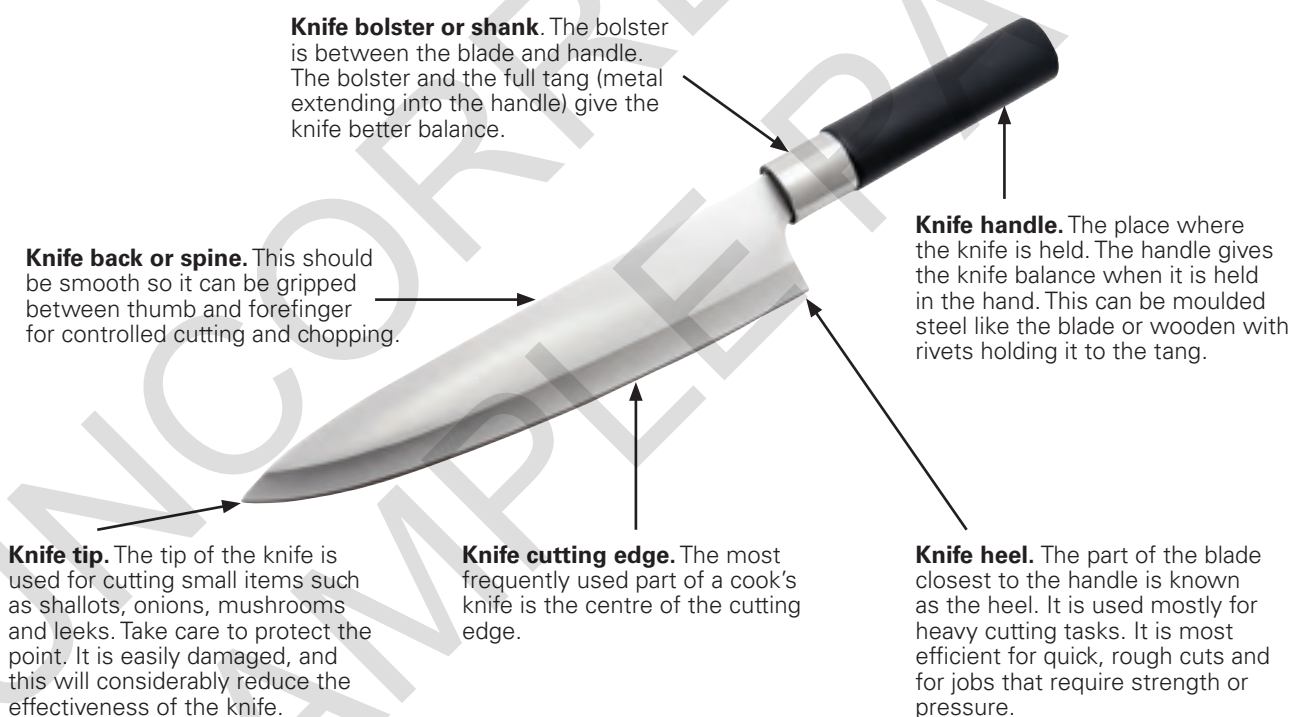


Figure 2.7 A good knife is essential.

2.12 INVESTIGATE IT

Visit the Global Knives website and compare the shape and style of knives used for filleting fish or boning meat, and slicing and dicing vegetables, under 'Range'. Draw a diagram of three different types of knives and state the reasons for their use. Care and sharpening techniques are also included. Develop a list of rules to be followed in order to care for your knives. Develop step-by-step instructions to explain how a knife should be sharpened.

Using a knife

The following steps should be followed when using a knife to cut fruits or vegetables:

- 1 Hold the knife firmly by the handle with the handle resting comfortably in the palm of the hand.
- 2 The thumb and forefinger wrap around the knife in front of the bolster, which is referred to as the *blade grip*, or immediately behind the bolster.
- 3 Food should be placed on a board, held with the fingers and thumbs, with the fingertips tucked in.
- 4 The first step in cutting fruits or vegetables is to stabilise your cutting board. This can be done quickly and easily by placing a flat damp tea towel or rubber non-slip mat smoothly under the board.
- 5 Rounded vegetables should also be anchored to prevent knife slippage, which can result in injury. For example, creating a flat surface by cutting one thin slice off a rounded side of an eggplant, carrot or zucchini will stop it from rolling around on the board.

A paring knife is smaller and can be manipulated more easily. It is used for tasks such as peeling fruit and vegetables. The larger cook's knife is used for cutting larger food items. Choose the correct knife for the job and concentrate when cutting.

Carrying a knife

Never walk around carrying a knife unnecessarily. If you must do so, hold the knife by the handle and point the knife downwards with the tip pointing to the floor, with the blade facing backwards and the knife held close to the body.

Cleaning and caring for a knife

Wash and dry each knife separately, with the sharp edge pointing away from your body. Knives must never be left immersed in water or covered by food scraps.

When a knife is not in use on the bench, place it away from the edge of the bench so that it cannot be knocked onto the floor. The handle should be facing towards you for easy access.

When storing a knife in a drawer, take care to protect the tip and edges of the knife.



Figure 2.8 Take extra care when using knives. NEVER cut towards yourself.



2.13 ACTIVITY

To peel, dice or slice?

- 1 Identify four fruits and four vegetables that can be:
 - a peeled by hand
 - b peeled using a peeler
 - c peeled by knife
 - d not normally peeled.
- 2 Justify the reason why carrots should be peeled.
- 3 Explain this statement: 'Zucchinis do not need to be peeled.'
- 4 Check your work area and list any other tools and equipment that can be used for slicing, cutting or breaking up food. For each tool or piece of equipment, state a food that is processed with it.
- 5 Define the term 'dice'. List 10 food items that you may be expected to dice in a Home Economics class.
- 6 Name one food item or meal for which each piece of equipment suggested in Question 4 would be suitable in food preparation.

Other equipment in the kitchen

A lot of other kitchen equipment is designed specifically for a particular purpose, including storing, preparing, mixing, cooking and serving. Some of this equipment is electrical and some items have more than one purpose, such as a casserole dish for cooking and serving.

Smaller new kitchen tools, also known as gadgets, regularly appear on the market. For example, the new fruit and vegetable slicer (see Figure 2.10) allows the creative cook many different effects for fruit and vegetables: slices, strips, noodles, curls, rings and much more. Have a go at one of these and see whether you can make zucchini 'pasta'.



Figure 2.9 Many items of restaurant kitchen equipment will never be used in a residential kitchen. Can you think of some examples?



Figure 2.10 The new whiz in the kitchen – a gadget that can make spiral fruit and vegetable slices.

2.14 LET'S COLLABORATE

With a partner:

- 1 Divide your page into four columns and classify each piece of equipment listed below under the following headings: Preparing; Mixing; Cooking equipment; Container for cooking.
- 2 Write an 'E' beside the equipment if it is also available as an electrical appliance.
- 3 Check your work area and indicate the tools and equipment to which you have access, and mark it on the list with an 'A'.
- 4 Write down any other equipment that is available in the Home Economics room or at home, and that is not already on the list.
- 5 Investigate any equipment that is unknown and cannot be classified, and write a short summary of its uses.

Preparing	Mixing	Cooking equipment	Container for cooking.
serrated knife	chopping board	spatula	cake cooler or wire rack
griller	beater	bamboo steamer	chinois
manual	oven	barbecue	pastry brush
baking tray	peeler	skewer	saucepan
grater	colander	food processor	mandolin
whisk	kitchen scissors	stove top	tagine
paring knife	deep fryer	apple corer	rolling pin
cook's knife	mixing bowls	electric beater	mortar and pestle
sieve	frying pan	blender	juicer
gratin	baking tins	wok	rice-cooker
wooden spoon	egg slicer	non-slip mat	bamboo rolling mat

- 6 Investigate and compare the nutritional benefit of the following pieces of equipment:
 - a wok compared with a deep fryer
 - a pressure cooker compared with a frying pan.
- 7 Explain how you think the taste and texture of:
 - a potato would alter when using a wok compared with a deep fryer
 - a carrot would alter when boiled compared to when steamed.
- 8 Think about the impact of stir-frying vegetables compared with roasting them. Outline how the taste and texture would be different. Which of these methods is better nutritionally? Explain why this is the case.

2.15 INVESTIGATE IT

The Thermomix is an all-in-one kitchen machine, combining the functions of 10 appliances in one unit. First launched as a food processor, the Thermomix is becoming a popular appliance in both professional kitchens and homes. Visit the Thermomix website and list all of the functions that this machine can perform to save time in the kitchen.



Figure 2.11 Thermomix appliance.

Investigation of suitable tools to use for the Five Foldover

In the preparation of the Five Foldover recipe below, test the following equipment and preparation techniques. Complete the following tasks and rate the tools suggested for the tasks. Write a conclusion about the best option. One pair of students could test each task and report back to the class.

For each of the following tasks, list the disadvantages and advantages of the suggested equipment for completing the task. Select the preferred option and justify your choice. Set up a table like the following one and list the options for the equipment to be used. Make a decision about the preferred equipment to be used and provide a brief explanation about why it is your preferred choice.

Ingredient	Option 1	Option 2	Option 3	Preferred choice and explanation
Cheese				
Cos lettuce				
Carrot	Large holes on grater	Small holes on grater		
Roma tomato				
Cucumber				

Decide on the best option for:

1 shredding Cos lettuce:

- vegetable or paring knife
- kitchen scissors
- food processor or serrated knife
- cook's knife

2 slicing Roma tomato:

- vegetable or paring knife
- food processor or serrated knife
- scissors
- cook's knife

3 cutting cheese into very small pieces:

- cook's knife
- large holes on grater
- medium holes on grater
- food processor

4 slicing bread:

- food processor
- cook's knife
- paring knife
- serrated knife.

shred To cut finely into long, thin strips; a term used for leaf vegetables – for example, to shred lettuce, cabbage or spinach leaves.

slice To cut through with a knife.

Prepare the Five Foldover recipe on p.56 using your preferred option for cutting and grating. Compare your results with those of other students and write a report on your findings.



2.16 ACTIVITY

Creating solutions for healthy eating

You are to produce a tasty healthy snack for lunch or after school suitable for summer or autumn. The snack is called a Five Foldover because it will have five ingredients and be folded inside a flatbread such as pita or a tortilla. Your Five Foldover needs to be served attractively, so think about presentation. Photograph your design solution. Practice your food photography skills if necessary.

Five Foldover


Main tools and equipment

Knife or grater, chopping board, non-slip mat, measuring spoons

Production skills

Measuring, slicing

Ingredients

		
1 lettuce leaf	¼ small carrot	½ tomato
		
⅓ cucumber	30 g tasty cheese	1 pita pocket bread
		
1 teaspoon hummus	1 tablespoon tzatziki	

Method

- 1 Wash and dry the vegetables.
- 2 Prepare the vegetables and cheese according to the technique you have selected using your chosen piece of equipment.
- 3 Split the pita bread and spread with hummus.
- 4 Arrange all the prepared ingredients in the bread, leaving a 2 cm border. Top with tzatziki.
- 5 Fold the bottom of the pita bread up, firmly roll from the side and wrap in plastic wrap. Store correctly if it is not to be eaten immediately.

SERVES 1



Preparation time: 10 minutes



Serving and presentation time: 5 minutes



Total time: 15 minutes





Ice-cream machines allow you to make your own ice-cream quickly and easily.

In the early 2000s, these were one of the most popular small appliances in the home. Do you have an ice-cream machine?

How often is it used in your house? Share your thoughts with the rest of the class.



REFLECT ON LEARNING

- 1 Explain three safety rules that apply when using a knife.
- 2 Describe what part of the knife needs to be used carefully, as it is easily damaged.
- 3 Outline how you can stop a carrot from rolling when you are cutting it.
- 4 List three pieces of equipment that could be used for cutting or chopping food into small pieces.
- 5 Explain the best method to keep your chopping board from slipping when you are cutting.
- 6 Name four pieces of equipment that you could put food in to cook it.

CREATE A SOLUTION

Tonight your parents have to work back late, but this is no excuse for unhealthy eating – you can cook! The only problem is that your kitchen at home is being painted and you are not allowed to go in. The resources you have are limited: you can't access the oven or the microwave. You have managed to find the electric wok, which your dad loves to use. This has been set up in the laundry. Design a healthy meal option that you can prepare for yourself and your brother for dinner using only this piece of equipment for cooking.

2.17 LET'S COLLABORATE

An electric frying pan and Thermomix are examples of small electrical appliances. List as many electrical appliances that are used in the home to prepare food as you can. Compare your list with those compiled by the rest of the class.



Cooking

The skill in cooking does not only come from following a recipe carefully, but also from knowing how to control the amount of heat, type of heat and intensity of heat to cook a wide range of foods.

Microwave

Microwaves have become an integral part of most households. In many apartments, a traditional oven is not included in the kitchen fittings – only a stove top and

a microwave. Like stoves, microwaves vary considerably in their design features, with some cooking with only waves and others including a radiation heat source as well as waves.

Tasty Trivia

Boiling a cup of water for tea is more energy-efficient in an electric kettle compared with using a microwave.



2.18 ACTIVITY

The microwave or the oven?

- 1 Develop a list of the advantages and disadvantages of using a microwave oven.
- 2 Develop a list of the advantages and disadvantages of using a conventional oven.
- 3 List 10 products that you might cook in the oven and 10 products that you might cook in the microwave.



2.19 INVESTIGATE IT

In tropical North Queensland, the lives of Aboriginal and Torres Strait Islander peoples have evolved around tropical forests over many thousands of years. The First Peoples of this area use seasonal foods and traditional methods of cooking to prepare the food that they hunt and gather.

- 1 Find out about the traditional bush tucker from tropical North Queensland:
 - a List as many of these traditional foods as you can.
 - b Discuss the role played by fish and turtle meat in the daily diet of Aboriginal and Torres Strait Islander peoples in this part of Australia.
- 2 Traditional methods of cooking and equipment used to cook food are very different from those we use in our homes today. Outline the role of paperbark as a piece of cooking equipment used to cook fish.



2.20 ACTIVITY

Rice-cooking processes

Below are instructions for cooking rice in boiling water on the stove top or in a microwave. Similar instructions to these are written on the back of packets of rice.

- 1 Discuss the differences in the equipment used, time taken and cleaning up.

Absorption method of cooking rice Serves 2		Cooking rice in a microwave Serves 2	
Equipment Saucepan Stove top Measuring equipment Wooden spoon for stirring	Ingredients 1 cup long-grain rice 1½ cups water	Equipment Microwave-safe dish and lid Microwave Measuring equipment Wooden spoon or fork for stirring	Ingredients 1 cup long grain rice 2 cups boiling water
Method <ol style="list-style-type: none"> 1 Put the rice and water into a medium saucepan. 2 Bring to the boil, stirring occasionally. 3 Lower the heat, cover and simmer for 12–15 minutes. Check after 10 minutes to make sure the rice has not stuck to the bottom of the saucepan. 4 Remove from the heat and stand, covered, for 5–10 minutes. 5 Serve. 		Method <ol style="list-style-type: none"> 1 Place the rice and water into a large microwave-safe container. Stir. 2 Microwave on high for 6 minutes. Stir. 3 Microwave on medium for 8 minutes. Stir. Replace lid and rest for 1 minute. 4 Serve. <p><i>Note:</i> different microwaves have different power levels. Check the microwave instruction book for time recommendations.</p>	

- 2 Copy and complete the advantages/disadvantages table below to compare the two techniques for cooking rice. Write a conclusion about the preferred technique.

Cooking method	Advantages	Disadvantages
Absorption method		
Microwave method		

- 3 Investigate the traditional Asian method of cooking rice. How do the two methods outlined above differ?



Cooking containers

As well as knowing about the amount and intensity of heat, you also need to know about the quality and type of cooking equipment.

Current cooking container materials include cast iron, stainless steel, toughened glass, copper, aluminium, enamelled steel and pottery. Polytetrafluoroethylene (PTFE) is used on some of these materials to create a non-stick surface.

These materials all have different cooking qualities and therefore different uses to achieve the best results (as outlined in Figure 2.13). Some also require different equipment to stir with. Non-stick cookware needs care to protect the surface, so silicone, toughened plastic or wooden spoons are best for stirring.

Tasty Trivia

Early hunters would immediately have noticed the advantages of a speared animal placed over the heat while still on the spear. There would have been no ash or dirt on the meat and it could be rotated, thus enabling more even cooking.



Figure 2.12 A Luau is the traditional Polynesian method for cooking a whole animal – in this case, a pig. It is a bit like our spit roast method of cooking meat.

conductor A good conductor of heat – for example, copper, stainless steel and enamel – allows the heat to travel through it quickly. Wood and glass are poor conductors of heat, which is why wooden spoons are best for stirring hot food.

Cast iron		Stainless steel	
	<ul style="list-style-type: none"> • Very heavy • Takes a long time to heat up • Holds heat well 		<ul style="list-style-type: none"> • Thinner material, lighter weight • Good conductor of heat • Heats up quickly • Responds quickly to heat change
Toughened glass		Non-stick cookware	
	<ul style="list-style-type: none"> • Suitable for oven use • Poor conductor of heat • Takes time to heat up 		<ul style="list-style-type: none"> • Non-stick surface must be protected • Only toughened plastic and wooden tools can be used on it as metal will scratch the non-stick surface • Also popular for baking trays

Figure 2.13 Select the cooking container most suited to your purpose to ensure success.

REFLECT ON LEARNING

- 1 Compare the way heat cooks in a griller with the way it cooks in the oven.
- 2 List three advantages of using a microwave when cooking.
- 3 List three disadvantages of using a microwave.
- 4 Identify a good conductor of heat.
- 5 Explain why a saucepan needs to be a good conductor of heat.



2.21 ACTIVITY

What am I?

Create a 'What am I?' game or quiz for tools and equipment from other countries. This task can be completed on a computer, using the internet to download a photograph and recipe.

- 1 Select up to 10 tools and/or pieces of equipment that originate from other countries and are used for food preparation, processing or cooking of food.
- 2 You will need to research the food preparation of other countries to find out about some different tools and equipment.
- 3 Decide on the tools and equipment that will become the answer for the 'What am I?' clues. Remember to keep your choice a secret because you want to test other students later.
- 4 Create six clues, ranked from the hardest to the easiest.
- 5 Clearly write the clues on paper or the computer. Keep these on a separate sheet.
- 6 Investigate safety issues for the use of this equipment.
- 7 Include a recipe that uses your selected equipment.
- 8 Include a diagram of the tool or equipment.
- 9 In groups of four, try out your 'What am I?' on other students. For example:
 - First clue: Describe the material that is most frequently used to make this tool or equipment – for example, it is most often made of a heavy metal, such as steel.
 - Second clue: Describe the use of this equipment in general terms – for example, it is used for cooking food.
 - Third clue: Describe a well-known Australian equivalent – for example, in Australia we could use a frying pan.
 - Fourth clue: Describe some food ingredients that are usually associated with this tool or equipment – for example, a food often cooked in this dish contains rice.
 - Fifth clue: This clue should include the country that traditionally uses this tool or equipment in food preparation or cooking – for example, it is most often used for Chinese cooking.
 - Sixth clue: The last clue should be easy. Describe the tool or equipment – for example, it is like a large, round frying pan with high sides and is used with a flat stirrer with a long handle.



2.22 LET'S COLLABORATE

With a partner, discuss and list the materials used for saucepans, frying pans and cake tins in your work area.

Spicy tortilla triangles



MEXICO

Main tools and equipment

Baking tray, pastry brush, saucepan, wooden spoon, measuring spoons, measuring cups, grater, grill











Production skills

Measuring, dicing, grating

Cooking processes

Baking, sautéing, grilling

Ingredients

				
2 round flour tortillas (23 cm)	1 teaspoon olive oil	1/2 onion, finely chopped	1/4 red capsicum, diced finely	1 clove garlic, crushed
				
1 cup kidney beans, drained and roughly mashed	1/2 cup thick and chunky bottled salsa	1 tablespoon coriander, chopped	1/4 cup corn kernels	45 g cheddar cheese, grated

Method

- 1 Cut each tortilla into 8 triangular pieces.
- 2 Brush or lightly spray the tortilla triangles with oil. Place on a baking tray and bake in an oven at 200°C for 5 minutes or until crisp and brown.
- 3 For the topping, place 1 teaspoon olive oil in a saucepan.
- 4 Add the onion and stir over a medium heat for 2 minutes.
- 5 Add the garlic and stir for another 1 minute, or until the onion is tender.
- 6 Stir in the kidney beans, salsa, capsicum, coriander and corn. Remove from the heat and leave to cool.
- 7 Spread the topping on the triangles, leaving a border around the edges.
- 8 Sprinkle with the grated cheese. Place another tortilla triangle on top. Grill for 1 minute, or until the cheese has melted.
- 9 Serve. You might like to serve your tortilla with guacamole. *Note:* Spicy tortilla triangles use all parts of the stove to cook.

MAKES 12 TRIANGLES



Preparation time: 10 minutes



Cooking time: 15 minutes



Serving and presentation: 5 minutes



Total time: 30 minutes



LOOKING BACK

- 1 A recipe gives you information about the ingredients needed, processes to use and cooking techniques. It is set out with logically ordered steps to follow in order to produce food.
- 2 Ingredients, tools and equipment, and processes need to be managed to produce food products.
- 3 The best outcomes in food production are achieved with accurate measurement of ingredients by using the correct equipment and the correct measuring techniques.
- 4 Food preparation uses an extensive range of tools and equipment.
- 5 Different equipment is used to prepare and cook different foods.
- 6 The correct equipment needs to be selected and used safely for the best results.
- 7 There are advantages and disadvantages when it comes to using a microwave for cooking and heating food.

TEST YOUR KNOWLEDGE

Multiple choice

- 1 When measuring $2\frac{1}{2}$ cups of carrot, the correct cups to use are:
 - a two $\frac{1}{4}$ cups
 - b one cup and one $\frac{1}{2}$ cup
 - c three $\frac{1}{4}$ cups
 - d three cups
 - e none of the above.
- 2 When cooking or heating food, microwaves are good to use when:
 - a you want to brown food or make it crisp
 - b the food is small and will cook quickly
 - c the food is uneven in size
 - d the food requires a long, slow cooking process.

True/false

- 1 When measuring flour with a cup, you should pack the flour in to get the correct quantity.
- 2 When dicing a carrot, it is a good idea to stop it from rolling by cutting a thin slice off one side first and placing the flat side on the chopping board.
- 3 Your cook's knife should be put in a sink of hot water and left to soak for five minutes after use.

Short answer

- 1 When measuring ingredients, accuracy is important to obtain good results. Describe how to accurately measure a liquid such as milk and a dry ingredient such as flour.
- 2 Name and sketch an example of four different types of measuring equipment available for use at school.
- 3 Briefly list the differences between cooking equipment made from cast iron and those made from stainless steel.

Extended response

Create a visual glossary album by following the steps below:

- 1 List each piece of equipment used in this chapter.
- 2 List the processes used in this chapter.
- 3 Take pictures of each piece of equipment on your list and upload to make a visual glossary album. Include a definition and statement about function/use with each picture. You could use Pinterest, Photo Story, Prezi, Glogster or Instagram.
- 4 Do the same for your list of processes, taking pictures in production classes when completing each process.