



Home economics in action 1

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Useful resources

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Introduction

Welcome to *Home economics in action 1*.

This resource is designed to provide teachers with ready-to-use units of work, which can be tailored to either a 10- or 20-week curriculum. Focused on VELS level 5 (Year 7–8), the unit of work is aimed at introducing the key concepts of home economics education such as health and safety, healthy eating and the design process with an underlying theme of sustainability and environmentally friendly approaches to food preparation in both the home and industry.

Through the study of sustainability, students gain an understanding of their responsibilities as consumers and how their food behaviours contribute to environmental issues. Through this unit, students are on their way to becoming informed and responsible global citizens.

The unit of work is structured around the seasons – a major learning focus. Seasonality is a key element of sustainable food production and consumption and it is something that students are able to implement in their own lives. The theme here is that sustainability begins with individuals and the choices they make.

The focus of this resource – as well as building environmental awareness and a strong practical component – is on how this unit reflects the Victorian Essential Learning Standards (VELS). The aim of this resource is to provide a home

economics curriculum in a broad context, meaning that the unit goes beyond the most commonly applied domains of Health and Physical Education and Design, Creativity and Technology. These VELS links are discussed at the beginning of each new learning focus.

This unit of work is also intended to appeal to teachers outside of Victoria and to be applicable to other home economics curricula. One of the advantages of home economics is that it has shared national and international momentum both within and outside of education – it has many global applications within local contexts.

Home economics in action 1 has been developed to cater for a diverse range of learning needs and for that reason there is a choice of activities provided for each of the learning focus areas. With this in mind, throughout the unit, students should employ forms of critical thinking, decision making and rationalisation and be provided with opportunities to challenge both their thinking and practical capabilities in a safe and supportive learning environment.

Where possible, student understanding of the concepts of sustainability can be significantly enhanced by having access to a small garden in which they are actively involved in the planting, maintenance and harvesting of seasonal produce.

Safety scenarios

- 1 Student A is carrying a hot tray.
Two students are rushing and pushing each other and knock the person with the tray.

- 2 Student A forgets to turn the hotplate off.
Student B puts a plate on the stove and goes off to do something else.
Student C picks up the plate and burns her hand.

- 3 Student A and B are working at the bench.
Student A puts his knife near the edge of the bench and goes to collect something from the trolley.
Student B knocks the knife and it drops on her foot.

- 4 Student A's cake is ready in the oven.
He does not have time to collect an oven mitt and so grabs the nearest tea towel (which is slightly wet) to take the cake out. The student burns his hand.

- 5 Student A is taking a tray of biscuits out of the oven.
He turns around without looking and walks into student B behind him.

- 6 Student A spills oil on the floor. He gives it a quick wipe with a tea towel and continues working.
Student B walks past with her ingredients on a plate. She slips on the oil and knocks her head.

- 7 Student A puts oil in the frying pan, turns the gas on and then remembers he forgot ingredients on the trolley.
He is distracted at the trolley by student B. The oil overheats and bursts into flames.

- 8 Student A leaves the oven door open after taking something out of the oven.
Student B walks around the corner and trips over the oven door, burning her leg.

Note: The terms 'he' and 'she' have been used interchangeably and all roles may be played by either sex.

Kitchen equipment bingo

Description of activity

For many students, this will be the first time that they work independently in the kitchen. Before they undertake their first production class, they need to become familiar with the equipment they will be using.

After students have had a chance to look around their work stations, they should fill out the **Bingo templates** with eighteen different pieces of equipment (nine in each of two templates for two rounds of bingo). These pieces of equipment should be selected from the list provided.

Students should fill in both the word and – as far as they are able at the beginning of the activity – their own illustration of the piece of equipment.

The teacher begins to read out the bingo clues (definitions or characteristics of the equipment) in a random order. Students should cross out the corresponding pieces of equipment on their template as they recognise them.

The first student to cross out three pieces of equipment in a row (vertical, horizontal or diagonal) is the winner of the bingo game. They should then read out their pieces of equipment along with their own explanations or definitions of the equipment they have selected.

Continue to play rounds of bingo until most of the kitchen equipment has been discussed.

Students should complete any illustrations on their bingo board that they were perhaps unable to before the game. Teachers can assist this process by having physical examples of equipment to show students.

Extension activity: Glossary of kitchen equipment

Following a number of rounds of bingo students should create their own glossary of kitchen equipment. The glossary should contain all of the equipment identified on the bingo template accompanied by students' own definitions (definitions should include aspects of both the design and the function of the piece of equipment).



The art of measurement

The purpose of this activity is for students to understand the importance of accurate measurement before they are required to do it in a practical class.

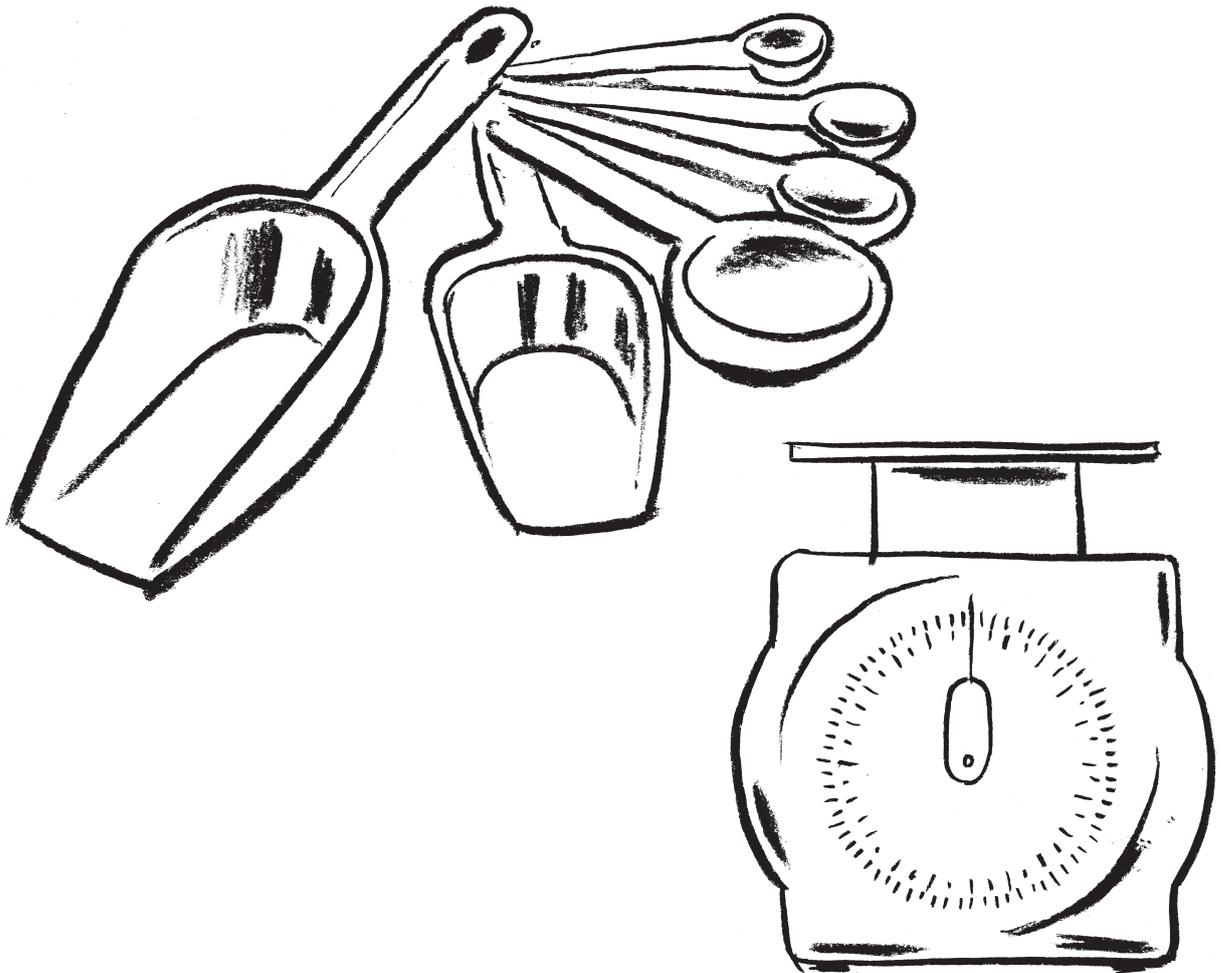
From this activity, students should gain an understanding of why using the right equipment is essential, how to recognise the right equipment and use it correctly.

To complete this task, students need access to the following:

- a full set of Australian standard measuring cups
- an Australian standard liquid measuring jug
- a full set of Australian standard measuring spoons
- electronic scales that can be set to tare
- a dry ingredient (the worksheet uses flour, but sugar or coconut could be substituted)
- a wet ingredient (water is fine).

Students should complete the activity with a partner or regular cooking group.

In order to save time, ingredients and mess, the activity using the scales to check variations in measurement can be demonstrated by the teacher or a range of students and discussed as a class rather than doing it in pairs.



Why study the seasons?

Answer these questions in your notebook if you need more room.

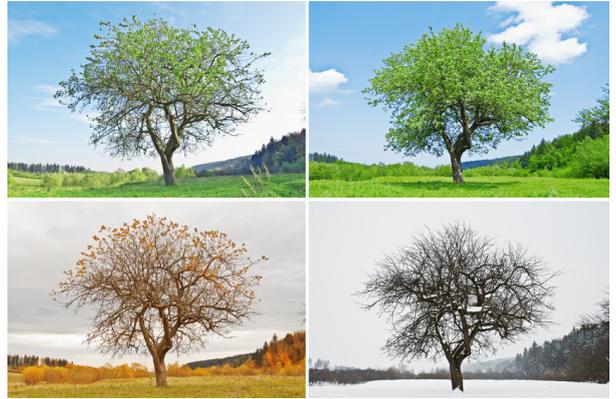
- 1 Identify the months for each of the seasons in Australia.

Summer

Autumn

Winter

Spring



- 2 Explain why having year-round access to fresh produce, although convenient, can be potentially damaging to the environment.

- 3 Eating with the seasons is a good way to ensure that a balanced and healthy diet is consumed. Explain why this is the case.

- 4 What happens to surplus (extra) food that is available when fresh produce is in season?

- 5 How can this process benefit the environment?

Summary question

Why do we study the seasons?

Fresh versus frozen: Mixed berry pancakes

Work with a partner to make two sets of mixed berry pancakes. Use the berries that you used to draw comparisons between fresh and frozen berries. Make one mixture using all of the fresh berries and the other mixture using the frozen berries.

Use the following recipe:

Mixed berry pancakes

Ingredients

1 C self-raising flour
 ½ C + 2 Tb light vanilla yoghurt
 150 ml low-fat milk
 1 egg
 6 Tb mixed berries (remember, one mixture is to have the fresh berries and the other mixture the frozen berries)
 Oil spray

Method

- 1 Place flour in a medium mixing bowl.
- 2 Combine yoghurt, milk and egg in a measuring jug.
- 3 Add the yoghurt mixture to the flour mixture
- 4 Combine until the mixture is free of lumps – you may need to use a whisk.
- 5 Thinly slice strawberries and cut raspberries in half.
- 6 Add these along with the whole blueberries to the pancake mixture.
- 7 Heat a non-stick frying pan and spray lightly with oil.
- 8 Pour ¼ C of the pancake mixture into the frying pan.
- 9 Cook each side for 1–2 minutes or until golden brown.
- 10 Repeat until the remaining batter has been used.

Recipe source: Adapted from Start Cooking 2008, Macmillan Education (Blueberry pancakes, page 69)

Once you and your partner have made the two batches of mixed berry pancakes, you need to complete the following evaluation questions.

- 1 Which set of pancakes was easier to prepare, the ones using fresh berries or the ones using frozen berries? Explain your answer.
- 2 Was there a difference in the final appearance of the two sets of pancakes? Explain.
- 3 Was there a difference in the sensory properties of the two sets of pancakes? Explain.
- 4 If you were given the choice, would you choose to use fresh or frozen berries if you were to make the pancakes again? Explain your answer.

Spring greens: Match up solutions and extension activity

Spring greens	Definition
 <p>Asparagus</p>	<p>I am a member of the shoots and stems family. I am approximately 18cm in length, with my top quarter being the most tender part to eat. I should be cooked until just tender. If I am overcooked, I lose all my bright green colour. Unfortunately, I am probably most well known for giving your wee a strong smell!</p>
 <p>Green beans</p>	<p>We are a member of the seeds and pods family, sometimes with a texture like felt. We are approximately 10–15cm in length and often have a slightly curved shape. Before cooking us, you usually remove any side strings and top and tail us. Like most greens, we are best cooked until just tender to keep in all my valuable nutrients.</p>
 <p>Lettuce</p>	<p>I am a salad vegetable that is approximately 95 per cent water. Although there are many varieties of me, the iceberg and cos are my most popular varieties. Although I am more commonly eaten in summer, I am at my best in late spring.</p>
 <p>Spinach</p>	<p>I am at my best in the early parts of spring, before the weather starts to get too warm. I am well known for my nutritional value, particularly my high levels of iron. I can be eaten raw in salads or cooked in any number of ways. When I am cooked, I shrink in volume drastically, so you need a lot of me if you are going to cook me.</p>
 <p>Broccoli</p>	<p>I am a member of the brassica family and am highly nutritious. I am made up of small, densely packed flower buds, which can be broken off into florets. Although I am a spring green, there are also purple varieties of me, but they are not as common.</p>
 <p>Peas</p>	<p>Another member of the seeds and pods family, we are known for having a number of different varieties. We are contained in leaf shaped pods and, depending on how you like us, you can eat the pod or take us out and eat us on our own. Common varieties include snow and sugar snap. We also freeze well so that you can eat us all year round.</p>

Spring greens	Definition
 <p>Rocket</p>	<p>I have become more popular in recent years and it's about time! I am a full-flavoured salad vegetable that can also be added to pasta and risotto as an alternative for spinach. My flavour is often considered 'mustard-like' and my spear like leaves make a salad look more interesting.</p>
 <p>Celery</p>	<p>I am a member of the shoots and stems family and I am best known for my crispy and crunchy texture. I can be eaten raw or cooked in stir fry. Although I am entirely edible, people usually remove my top leaves and the white part of my stem. I am very high in water and can be very refreshing on a hot day.</p>
 <p>Silverbeet</p>	<p>I am an alternative to normal spinach. My leaves are a darker green, which also means that I am higher in iron and folate than regular spinach. You can also cook my stalks, which are a white colour. These are great added to soups and offer even more nutrients. Next time you go to eat spinach, think about me instead.</p>
 <p>Bok choy</p>	<p>I am a member of the brassica family, along with my distant relative, the cabbage. I am known for being high in vitamin C and in my traditional culture, I am considered to be a source of natural medicine due to my highly nutritional status. I can be served raw in salads, steamed or in a stir fry. Be warned though, I don't like to be cooked for very long.</p>
 <p>Broad beans</p>	<p>I am a member of the seeds and pods family, although I am a lesser known member of the family. I am found inside a large pod, which has a furry texture. Unlike other members of my family, I am removed from the pod before I am cooked.</p>

Source: Adapted from *Fresh for Kids (Sydney Markets)*, www.freshforkids.com.au/veg_pages/veg.html

Extension activity: Celebrity greens

Once students have completed the worksheet matching up their spring greens, use this information to play a revision game of celebrity heads and yes, that's right, the spring greens are the celebrities!

Three students need to volunteer. They can sit in front of the class and are each allocated a different spring green. The class knows which spring greens the three students are but the students themselves do not. The three students then take turns to ask yes/no questions that will be answered by the rest of the class until they guess which spring green they are. (Questions must be able to be answered by just yes or no.)

Once a student correctly identifies their spring green, they are the winner. You can then begin another round of celebrity greens.

This is a simple, but fun, revision activity that students will enjoy and learn from.

Scrubbing for sustainability!

Cleaning products are responsible for environmental damage in a number of ways. When combined with water, for example to do the washing up, the use of commercial chemicals means the water can no longer be used as grey water; not to mention all the non-recyclable packaging that contributes to landfill.

By making your own cleaning products, you can help to create a healthier environment.

Directions to students

You need to work in groups of four. As a group, make the homemade cleaning products.

Now divide into pairs. Select one pair to clean using the shop-brought cleaning products. The other pair will use the homemade cleaning products.

Once you have decided who will use what, you need to set about cleaning your workspace. Be sure to divide the tasks up evenly so that you can compare the homemade and commercial products. If you have only one of the listed items in your work station e.g. one oven, you may either clean half of it with each product, or work with another group and compare notes.

The following pieces of kitchen equipment need to be cleaned:

- oven (including racks), using oven cleaner
- chopping boards, using bleach
- bench surfaces, oven top and sink, using surface spray
- grill tray, using dishwashing liquid.

Record your results as you complete each cleaning task. This may be done either on a provided worksheet, or in your own note book if you have come up with your own criteria for a successful cleaning job.

Remember to work closely with the other members of the group so that you can record accurate results.

You will then analyse your results using the **Conclusions** worksheet.

Fruit and vegie games: Teacher resource

Directions

Print off the cards on the following six pages and laminate a set of each.

The card sets are:

- Vegetable classifications (pg. 68)
- Vegetable examples (pg. 68–69)
- Fruit classifications (pg. 71)
- Fruit examples (pg. 72–73)

The following games/activities can be conducted using the cards.

Game 1: Group challenge

Divide the class into small groups (four students per group). Attach the vegetable and/or fruit classification cards to the white board using Blu Tack.

Each group needs to take it in turns placing the individual fruit or vegetable cards under the correct classification. Each group should be timed. The group to correctly place all the fruit and/or vegetables in the correct classification wins a prize.

Game 2: Who am I?

For this activity, students should work in pairs. Each student has access to three or more fruit and/or vegetable cards. They choose one, which they keep secret from their partner. They need to offer clues to their partner to help them guess the fruit or vegetable.

Each partner takes it in turn to deliver the clues until the fruit or vegetable is guessed correctly. Then both students select their next fruit/vegetable card.

This activity works best as a 'best-of-three' competition. So, in a possible three rounds together, the first partner to guess two fruit or vegetables correctly moves on to the next round where they will take on a new partner. Eventually the competition will get down to only two students, who play a final round to find a class champion.

Game 3: Family memory

Using the individual fruit or vegetable cards only, students can play a game of memory. But instead of having to find an identical match, they need to match with another fruit or vegetable from the same family or classification (e.g. apple and pear are both pome fruits and are therefore a match).

Game 4: Snap!

Similar to the memory game, students play in a group, but instead of looking for an identical match, they need to match with a fruit or vegetable from the same classification or family.