Food preparation
Understands how to keep food safe from harmful germs by storing it safely.

Prior knowledge and lesson preparation
- In groups of 3, children discuss reasons why we need to store food safely. Responses need to be recorded for further discussion about germs. Explain to children that some germs called bacteria can make us sick if they are allowed to grow and multiply on food we eat. These bacteria die when food is cooked well (over 60 degrees Celsius) and they stop growing when it gets too cold for them to survive (below 5 degrees Celsius).
- Discuss daily temperatures in summer and winter to gain an understanding of hot and cold in relation to temperatures and how a thermometer is used to measure temperature.

Focus inquiry
- Children discuss where foods are stored in a supermarket or shop such as shelf, fridge or freezer.
- List the foods that are stored in each storage category or collect pictures of food and food containers to be pasted under their appropriate headings.
- Children then list foods that are first kept on a shelf but stored in a fridge once they are opened and consider:
  > Why is it important to put these foods in a fridge?
  > What might happen if the food is left out of a fridge on a hot day?
  > How would you know if a food is not fit to eat?
  > Do foods need to be covered when they are placed in the fridge? Why?
  > Why do we put our lunches in lunch box containers? How can we keep our lunch boxes cool?

Further inquiry
- Using the proforma on page 47, children investigate and compare what happens to food that is left outside with food that is stored in the fridge for 5 days. Possible foods to be investigated could include bread, cheese, milk or fruit.
- Children predict what the outcomes might be after 5 days and record their observations daily. At the end of 5 days, in pairs, children discuss and draw conclusions from their observations to share with the class.
  > What do the results tell us about storing food? How will we use this information?

Australian Curriculum exemplar links
- English: Literacy: Interacting with others [ACELY1784, ACELY1656, ACELY1788]
- Language: Expressing and developing ideas [ACELA1470]
- Maths: Number and Algebra: Number and place value [ACMNA002]
- General Capabilities
  - Literacy, Critical and creative thinking,
  - Numeracy, Personal and social competence
- Cross Curriculum Priorities
  - Sustainability
- Websites to support inquiry
  - Food safety information for children
  - Food safety in school canteens, Right Bite manual, part 2, pg 75
  - SA School Canteen Information
  - DVD Looking After Our Kids
## Rating breakfast cereals

<table>
<thead>
<tr>
<th>Breakfast cereal per 100g</th>
<th>Total fats</th>
<th>Saturated fats</th>
<th>Sugar</th>
<th>Sodium (salt)</th>
<th>Fibre</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cereal A</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cereal B</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cereal C</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Name .............................................................. Date ......................................
Practices good hygiene when handling food.

Prior knowledge and lesson preparation
○ Discuss the meaning of being safe with food.
○ With the help of a partner, children trace around their hands on white paper and cut out the shape. Children examine their hands (front and back) and discuss all of the things they can see on the skin of their hands (eg dirt, texta marks, grass stains). On the first cut out hand children record what they can see on their hands and consider what the second cut out hand is meant for (ie things we can’t see).
○ Introduce and discuss the term micro-organisms. Children give examples of what these could be (eg germs, bacteria, viruses, protozoa) and how they might affect us if they enter our body.
○ The class then discusses how these microorganisms get into our body and how we could stop them from getting in (eg covering cuts, washing hands before eating and using the toilet, washing raw food like fruit and vegetables before we eat it).
○ Introduce and discuss the fact that not all micro-organisms are harmful (eg bacteria in yoghurt and cheese, good bacteria in our digestive system).

Focus inquiry
○ In groups of 4 (preferably with adult supervision), spread moisturiser and sprinkled nutmeg on each child’s hand. Children first wash their hands in cold water only and notice any changes compared to washing with cold water using soap. Introduce a song (eg This is the way we wash our hands or Happy Birthday) as students explore ways of hand washing.
○ Children discuss which method of hand washing was most efficient in removing all of the moisturiser and nutmeg. The second method is best. It is important to explain that hands should be dried on a paper towel or under an air dryer. Singing Happy Birthday during hand washing provides a guide as to the length of time needed.

Further inquiry
○ Create posters Rules to follow before we eat.
○ Where appropriate, invite the school canteen manager to speak to the class about hygiene practices used when preparing school lunches. Develop questions to ask the canteen manager.
○ Find out more about correct hand washing and food safety by contacting the Local Government Environmental Health Officer.

Appetiser!
Did you know that over 11,000 people every day suffer from food poisoning in Australia?

Correct hand washing:
> wet hands under the tap
> apply soap on your hands
> rub your hands, between fingers front and back, around thumb, around wrist
> sing Happy Birthday as an indication of hand washing time
> rinse hands with tap water
> dry on a paper towel or hold under an air dryer.

Often children in Year R–2 eat their lunch or recess before they go outside to play. This is a great time to reinforce the importance of washing hands before handling their food – make it compulsory to wash hands prior to eating.

Healthy take-away!
To further reinforce the message of good hygiene when handling food, children share and discuss correct hand washing technique with parents and prepare a home poster for correct hand washing practices. Consider and discuss other ways to practice good hygiene at home (eg dishes, toileting, bathing).

Australian Curriculum exemplar links
English: Literature: Examining literature [ACELT1585] Literacy: Interacting with others [ACELY1676]

General Capabilities
Literacy, Critical and creative thinking, Numeracy, Personal and social competence

Websites to support inquiry

Video
www.foodstandards.gov.au/consumer/information/Pages/default.aspx
Prior knowledge and lesson preparation

- In groups of 3, children revisit and discuss important food safety considerations from previous activities and share generalisations with the class.
- Children discuss the meaning of the food term *dip* and list the names and composition of dips with which they are familiar. Share lists in a class discussion and classify each as healthy or unhealthy based on prior knowledge of *The Australian Guide to Healthy Eating*.

Focus inquiry

**Adult supervision needed.** Prior to the activity, reinforce the need for good hygiene when handling or preparing food. Revisit correct hand washing technique.

- In groups of 4, children create their own healthy dip comprising a dip base, add-ins and vegetables.
- Discuss and list possible ingredients. Use *The Australian Guide to Healthy Eating* to assess the suitability of the ingredients. Examples could include:
  - **Dip bases:** low-fat natural yogurt, tomato juice, chopped tomato (fresh or tinned), low fat sour cream, tofu-mashed, avocado-mashed, tinned chick peas-mashed, cooked mashed-potato.
  - **Add-ins:** lemon juice, Worcestershire sauce, spices (eg turmeric, cumin, pepper), spring onion, garlic, herbs such as oregano, basil, rosemary, tarragon, dill, garlic, mixed Italian herbs, parsley, coriander—fresh or dried.
  - **Dipping vegetables:** carrots, celery, broccoli, cucumbers, capiscum, cauliflower, snow peas.

Encourage the children to smell ingredients that they may not be familiar with, particularly the herbs which will help them with their selection.

**Method/Procedure:**

- Select one or more of the dip base ingredients and mix them in a cup. Ensure to keep your cup and spoon to yourself.
- Choose the add-ins for your dip. Add as many as you wish.
- Next, wash the vegetables and with the assistance of adults and cut them into small bite-size pieces. Keep a record of ingredients used, so that you can write a recipe and include it as part of a *Class recipe book*.

Further inquiry

- Organise a tasting for the original dips.
- Write a procedural text, outlining how the dip was made and include an imaginative name for the dip.
- Design a colourful label for the dip, using interesting adjectives to make the dip sound irresistible.
- Use the internet to investigate other healthy dip ideas.

Healthy take-away!

Invite parents to a healthy dip tasting occasion at school. Parents might like to vote on their favourite dishes.

Make an electronic version of the *Class recipe book* available to families via the school website.

**Australian Curriculum exemplar links**

**English:** *Literacy:* Creating texts, Interacting with others [ACELY1672, ACELY1646]  
*Language:* Expressing and developing ideas, Text structure and organisation [ACELA1435, ACELA1479]

**Maths:** *Number and algebra:* Fractions and decimals [ACMNA033]

**General Capabilities**

Literacy, Critical and creative thinking, Personal and social competence

Further recipes are available in the Teaching support materials section of this kit and from www.gofor2and5.com.au/Recipes/tabid/58/Default.aspx
Food preparation: Food storage

Identifies reasons why food spoils if not stored effectively.

Appetiser!

> Harmful bacteria can make us sick.
> Bacteria grows and thrives in temperatures between 5 degrees Celsius and 60 degrees Celsius.
> Below 5 degrees Celsius bacteria stop growing and above 60 degrees Celsius, bacteria dies.
> Bacteria double in number every 20 minutes at room temperature.

Australian Curriculum exemplar links

English: Literacy: Interacting with others [ACELY1792] Language: Language for interaction [ACELA1488]
Maths: Measurement and Geometry: Using units of measurement [ACMMG084]
Science: Science Inquiry Skills: Questioning and predicting [ACSIS053, ACSIS064]

General Capabilities

Literacy, Critical and creative thinking, Personal and social competence

Prior knowledge and lesson preparation

> With a partner, children discuss and record the meaning of the terms perishable, semi-perishable and non-perishable and share their ideas in a class discussion. Investigate the meaning of each using the internet.
  > Perishable foods will spoil in a few days eg raw meat, fish, ham, milk, some fruit and vegetables.
  > Semi-perishable foods will spoil in a week or two, and some up to 1–2 months eg bread, potatoes, onions, margarine, butter.
  > Non-perishable foods have a Use by date, or Best before date eg canned goods, dried pasta types, sugar, flour.

Focus inquiry

> In groups of 3, children provide examples and record where the food should be stored for each food category.
> Children then discuss and use resources to investigate a group response to:
  > Does the above information help us to understand what causes food to spoil and where food should be stored?
  > Why are perishable and semi-perishable foods kept in the fridge?
  > Why do we need to cook food?
  > What will happen to food if it is left out, and not stored appropriately?
  > What is the temperature danger zone?
  > Why should we store non-perishable foods in containers?
  > Why should we keep hot food hot and cold food cold when we want to eat it?
  > Why should raw meats be stored on the bottom shelf in the fridge?
  > Why do we store some food in the freezer?
> Groups share responses with the class.

Further inquiry

> With a partner, children prepare a shopping list of foods they like to eat for 3 main meals of a typical day. Children then discuss and record where these foods are likely to be stored in a supermarket.
> In pairs, children then identify the most appropriate place to store each type of food at home and why (Refer proforma on page 51).
> Children then develop an inquiry aimed at proving or disproving one of their findings eg compare what happens to milk if left out at room temperature with milk stored in the fridge and observed over a period of 5 days.

Healthy take-away!

With the help of a parent, check the temperature of the family fridge using a thermometer. Adjust the temperature if higher than 5 degrees Celsius. Evaluate food storage at your home using the table below to assist you with the assessment.

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Are raw meats stored in the bottom of the fridge?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Are all non-perishable goods stored in containers?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is the fridge temperature lower than 5 degrees Celsius?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Are perishable &amp; semi-perishable foods to be eaten much later, stored in the freezer?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is food from the supermarket put away immediately, in the correct place?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Healthy Eating Curriculum Kit · Food preparation
Place your shopping for the main meals in the correct location. Give reasons for your selection.

<table>
<thead>
<tr>
<th>Product</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fridge</strong></td>
<td></td>
</tr>
<tr>
<td>eg Milk</td>
<td>eg Milk is a perishable food and needs to be stored in the fridge. The fridge temperature will make sure the milk does not spoil within two days.</td>
</tr>
<tr>
<td><strong>Freezer</strong></td>
<td></td>
</tr>
<tr>
<td>eg Fish fillets</td>
<td>eg The freezer will keep the fish fresh for a longer period. You can store fish in the freezer for 2–6 months depending on the species. of fish.</td>
</tr>
<tr>
<td><strong>Pantry/cupboard</strong></td>
<td></td>
</tr>
<tr>
<td>eg Packet of pasta</td>
<td>eg Pasta is a non-perishable food. It should be stored in a container so it doesn’t get contaminated by insects, chemicals or foreign objects.</td>
</tr>
</tbody>
</table>

Name .......................................................... Date ....................................
Recognises the importance of preparing and cooking food safely and hygienically.

Australian Curriculum exemplar links

English: Literacy: Interacting with others [ACELY1676, ACELY1687, ACELY1699]

General Capabilities

Literacy, Critical and creative thinking, Personal and social competence

Websites to support inquiry

Right Bite website–Food safety tips

Hand washing poster

Food safety information for children

FSIC YouTube Channel
https://www.youtube.com/channel/UCAJtjgwBFZZ1iA2XUBnLbMg

Food safety in school canteens, Right Bite manual, part 2, pg 75

SA School Canteen Information

Video

Prior knowledge and lesson preparation

- In groups of 3, children revisit and list the rules and reasons for the safe handling and preparing food (e.g., washing and drying hands, ensuring the food preparation area is clean, tying back hair if needed).
- Items and ingredients needed for each group: 2 oranges, 5 bananas, 1 cup of desiccated coconut, 2 orange squeezer, chopping board and knife, tooth picks, small bowl, grease proof paper and tray.

Focus inquiry

Making Coco-banana bites (in groups of 3 children)


Method:

1) Squeeze the juice from the orange and pour it into the small bowl.
2) Peel the bananas and cut into bite-sized pieces.
3) Using a toothpick, dip banana pieces into the orange juice.
4) Roll banana in the coconut.
5) Eat immediately, or keep in the fridge until chilled. (If the food is going to be chilled or stored in the fridge, discuss the best way to keep it safe?)

- Children discuss the success of the activity and investigate other healthy snacks that can be easily prepared.
- Prepare a class Healthy snack recipe book electronically. Make the book available to all families and the canteen.

Further inquiry

With a partner, children create a board game similar to Snakes and Ladders, (e.g. Jerry Germ and Safe Sam) based on food safety and hygiene rules.

Appetiser!

Five basic rules to follow to keep food safe:

> Ensure that potentially risky foods are stored at the correct temperature, that is; Cold foods 5 degrees Celsius or lower – hot foods 60 degrees Celsius or higher.
> Cook food thoroughly, and if necessary, cool it quickly: A probe thermometer should be used – aim for at least 75 degrees Celsius in the centre of hot food.
> Ensure that cross contamination does not occur.
> Wash, sanitise and dry all equipment thoroughly after use.
> Ensure that good hygiene practices are used at all times.

Healthy take-away!

Design, make and use a food safety checklist to promote good practice related to personal hygiene, food and food preparation and cooking in the home.

Share your checklist with your family and identify areas for improvement.

Watch your favourite cooking show on television. Using your checklist assess the safety and hygiene standards that you notice being used in the program.

Years 3–5

Food preparation: Hygiene and handling food

Coco-banana bites

52 | Healthy Eating Curriculum Kit | Food preparation
With adult supervision can cook or prepare a healthy meal following a recipe.

### Pizza wheels

**Method:**
1. Preheat the oven to 200 degrees Celsius.
2. Grease the baking tray.
3. Sift the flour into a bowl.
4. Rub the margarine into flour until it resembles fine breadcrumbs.
5. Whisk the egg and the milk together in a small bowl with a fork.
6. Add the egg mixture to the flour and mix to form a soft dough ball.
7. Roll out the dough to form a rectangle, on a floured surface.
8. Peel and slice the onion, slice the tomato, mushrooms and capsicum.
9. Spread the tomato puree, onion, tomatoes, capsicum and mushrooms over the dough. Leave a 2cm gap around the edges.
10. Grate the cheese.
11. Sprinkle the grated cheese and herbs on top.
12. Roll up from the long end sealing the filling inside.
13. Cut into 4 cm slices.
14. Place flat on the baking tray and bake for 10 minutes.
15. After baking, place on a cooling rack.

**Equipment:** Mixing bowl, sieve, kitchen scales, baking tray, sharp knife (supervised), measuring spoons, measuring jug, rolling pin, chopping board, grater, cooling rack, fork. **Applying utmost safety when using knives and hot ovens.**

**Ingredients:** Base: 150g self raising flour, 25g margarine, 1 egg, 50ml milk. **Topping:** 25gm tomato puree, 1 tomato, 50g low fat cheddar cheese, 3 mushrooms, 1 teaspoon (5ml) mixed dried herbs, 1 onion.

### Healthy take-away!

Try the recipes at home. You can change some of the toppings to suit family tastes, however remember this is a healthy pizza and choices must fit within AGHE.

#### Australian Curriculum exemplar links

**English:** *Literacy:* Interpreting, analysing, evaluating, Interacting with others [ACELY1698, ACELY1691, ACELY1661] **Literature:** Responding to literature [ACELT1586]

**Language:** Language for interaction, Expressing and developing ideas [ACELA1488]

**Maths:** *Measurement and Geometry:* Using units of measurement [ACMMG061, ACMMG064, ACMMG108]

**Science:** *Science Inquiry Skills:* Questioning and predicting [ACSIS231, ACSIS029] **Chemical sciences** [ACSSU077]

### General Capabilities

Literacy, Critical and creative thinking, Numeracy, Personal and social competence

#### Websites to support inquiry

- Heart Foundation healthy recipes [www.heartfoundation.org.au/recipes]
- Healthy recipes, games and resources [www.nutrition.org.uk/foodinschools/teachercentre]
- Jamie Oliver’s website – recipes, fact sheets, activity sheets [www.jamieoliver.com/recipes]
Understands the difference in the cost of processed and unprocessed foods, and seasonal fruit and vegetables and how to budget for healthy food.

Prior knowledge and lesson preparation

- The Food Cents website provides valuable opportunities to consider a range of topics and themes to build insightful knowledge, expertise and student empowerment around healthy food costs and shopping.
- Food Cents can help students discover the costs of unhealthy eating on their health and their budget. The activities and supermarket tour provide practical hands-on activities to learn about healthy eating, food costs, food packaging and storage.

Focus inquiry

The links below provide background for teachers and students to design inquiry from a range of perspectives.

- The real cost of healthy food

- Crunch&Sip

- Kick start to Crunch&Sip

- Fruit & Veg September

Appetiser!

Take on the Takeaway

> Australians are busy and don’t always have the time or money for fussy family meals. Unfortunately the average Australian family spends $1 out of every $3 of their food budget on meals purchased away from home. Over half of the money spent on foods eaten out of home is spent at fast-food outlets.

> Eating out costs more: For the cost of a takeaway meal, you can buy the groceries required to make two or three meals at home.

> Driving to pick up a local takeaway may seem quick and easy, but the meals are often expensive, unhealthy, made from poor quality ingredients and are not as convenient as you may think.

> The same amount of time and effort put into making a meal at home will be tastier, fresher, more tailored to your tastes and better for your wallet!

> Challenge yourself and your family to go without takeaway for the week/month and see how much money you save. You might also notice you feel healthier, have spent more time with the family and have eaten some tasty meals.

Source: Food Cents website

Food sticks $15/kg Fresh fruit $5/kg
Prior knowledge and lesson preparation

- In groups of 3–4, students discuss and draw conclusions about the positive and negative impact of germs in our environment. Narrow the discussion focus to the specific consequences of germs through food preparation.

Focus inquiry

- Working with a partner, students list ways germs spoil or contaminate the food we eat (eg dirty hands, incorrect storage, raw meat juices coming into contact with other food).
- Students are then introduced to the Four C’s of Food Safety: Clean, Cook, Chill and Cover.
  - Clean: When preparing food, always keep hands, preparation surfaces, serving containers and utensils clean.
  - Cook: Cook food thoroughly and keep hot until it is ready to serve, especially meats. Leftovers should be reheated until hot (that is: above 60 degrees Celsius).
  - Chill: Perishable foods should be refrigerated below 5 degrees Celsius or frozen until needed. Leftovers must be refrigerated or frozen within 2 hours of purchase or cooking.
  - Cover: Food needs to be kept covered to prevent contamination. Contamination occurs when something gets into the food that we do not want in there (eg chemicals, dirt, hair, other foreign objects, insects, animals, germs).
- In groups of four, students choose one of the Four C’s to discuss and develop an inquiry as to how this impacts on food safety.

Groups then develop a communication strategy to present their findings.

Further inquiry

- Contact the Council to arrange for the Environmental Health Officer to talk to the class about food safety in our community and how this is regulated (eg in shops, supermarkets, restaurants, canteens).
- Investigate the Right Bite website for further information about food safety.

Healthy take-away!

Design a food safety checklist to promote good practice related to personal hygiene, food storage, food preparation and cooking at home. Use a thermometer to find out the temperature of your home fridge. (The temperature must be below 5 degrees Celsius). Find out how foods were kept germ free and safe to eat 50 years ago. Compile a list of questions you would ask a grandparent/senior citizen to assist in your investigations. Consider such aspects as refrigeration, transport of foods, running water.

Healthy take-away!

- Harmful bacteria can make us sick.
- Bacteria grows and thrives in temperatures between 5 degrees Celsius and 60 degrees Celsius.
- Below 5 degrees Celsius bacteria stops growing and above 60 degrees Celsius, bacteria dies.
- The number of bacteria doubles every 20 minutes at room temperature.
Coorara Primary School is situated in the Southern suburbs of Adelaide and has a student intake of just under 300. It has had a focus on improving wellbeing through increasing physical activity and fruit and vegetable consumption for the past 5 years. The school’s vision for a Kuarna trail began in 2009 after the school established a fruit and vegetable garden which has been expanding every year since. It has involved the collaboration of a passionate group of people, who have inspired each other and added different expertise.

Each year since 2009, the school has successfully applied for $1000 from the Grow a Great School grant. This has enabled the school to source the plants for the gardens. Delegates from South Australian Urban Forests helped the school to select plants with a Kuarna perspective that were indigenous to the area. Delegates from SA Urban Forests were also present and assisted the school during National Tree Day, when all students in the school were involved in tree planting.

In 2010, the school applied for an NRM Achiever Grant to develop their vision further. The school wanted to install signage on plants and develop a resource pack for classes to use. The inspiration of one of the school’s HPI support officers challenged teachers to think more broadly—to source more edible plants that could be included in fruit and vegetable platters that could be prepared in the kitchen by the enthusiastic Healthy Lifestyle Parent Committee. Under her guidance, two teachers were released to plan the teachers’ resource kit, which included Dreaming Stories; and prepare the signage that included scientific names, common names and Kaurna names.

The student identification booklet, which includes medicinal and food uses of the plants is invaluable for teachers and students, providing a great starting point for lessons with classes.

Throughout this process, Communities for Children worked with Indigenous children and students to create mosaics which are now scattered throughout the gardens. In 2012, the gardens were officially opened by the local Member of Parliament. The school celebrated the opening of the Kaurna Trail by using the resources for the first time during Healthy Lifestyle Week.

Coorara Primary School’s Kaurna Trail is a work in progress, as each year the school community plans to expand and redevelop garden areas throughout the rest of the grounds, with the assistance of further Grow a Great School grants.

The school can’t wait for the plants to grow enough so they can harvest food for students, staff and community to try on their shared fruit and vegie platters and also prepare in the kitchen. In addition the school community hopes to see an increase in fauna appearing at the school.