



Food & Drink
SOURCE

K-PP

Food from nature and nurture

Introduction

This unit introduces students to the roles of nature and nurture in the process of food production by engaging students in planting, tending and observing plant growth. Involvement in this process also helps foster an interest in environmental sustainability. Key vocabulary introduced includes: food, shelter, sunshine, watering, planting, sowing, feeding, fertilising, and harvesting.

Key Messages

- Healthy food comes from plants and animals.
- We can grow and produce our own healthy food.

This unit will enable students to:

- Identify a wide range of foods and drinks and their plant and animal sources.
- Identify and compare different foods which can be purchased or grown at home, school and in other settings.
- Identify different conditions and supports required for plants and animals to grow/survive.
- Demonstrate basic skills related to growing foods such as planting, tending and harvesting.



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Links to the Australian Curriculum

Main learning area: SCIENCE*		
Australian curriculum strands	Australian curriculum sub-strands	Australian curriculum content descriptions
Science Understanding	Biological sciences	Living things have basic needs, including food and water (ACSSU002)
	Chemical sciences	Objects are made of materials that have observable properties (ACSSU003)
Science as a Human Endeavour	Nature and development of science	Science involves exploring and observing the world using the senses (ACSHE013)
Science Inquiry Skills	Questioning and predicting	Respond to questions about familiar objects and events (ACSIS014)
	Planning and conducting	Explore and make observations by using the senses (ACSIS011)
	Processing and analysing data and information	Engage in discussions about observations and use methods such as drawing to represent ideas (ACSIS233)
	Communicating	Share observations and ideas (ACSIS012)
Foundation Year Science Achievement Standard		
By the end of the Foundation year, students describe the properties and behaviour of familiar objects . They suggest how the environment affects them and other living things .		
Students share observations of familiar objects and events .		

* Based on Australian Curriculum Science, version 6, 18 Feb 2014.

General capabilities

The Australian Curriculum describes seven general capabilities which extend across each learning area. Their relevance to learning tasks in this unit is indicated below:

Learning Task	Literacy	Numeracy	ICT capability	Critical and creative thinking	Ethical understanding	Personal and social capability	Intercultural understanding
From little things big things grow							
Baking bread							
Pizza garden							
Music to grow by							

Unit Overview

Some learning tasks require food preparation and cooking. Before commencing any of these learning tasks:

- Check students do not have allergies or sensitivities to foods used.
- Ensure included food and drinks are culturally acceptable.
- Refer to food and drinks from other cultures in relevant class discussions.
- Discuss food hygiene and safety practices, for example, always wash your hands before touching food and do not use sharp knives without adult supervision.

Some learning tasks require prior preparation; therefore refer to the Resources needed list below before commencing each learning task.

Learning Task	Suggested time allocation	Resources needed
Introducing Key Messages		
1. From little things big things grow	60 minutes	<ul style="list-style-type: none"> • Wheat and other grains or seeds such as barley, oats, rice • <i>The little red hen</i> storybook (hardcopy or online version: http://www.speakaboos.com/story/the-little-red-hen/) • <i>The little red hen</i> Activity sheet – 1 per student • Scissors and glue
Developing Key Messages		
2. Baking bread		<ul style="list-style-type: none"> • Bread maker or <i>Bread Recipe</i> Activity sheet • Ingredients for baking bread • Products made from grains and seeds (optional)
3. Pizza garden	Part A: 60 minutes Part B: Regular measuring and watering Part C: 60 minutes	<ul style="list-style-type: none"> • Seedlings • Pots and potting soil or a garden bed • Pop sticks and small cards for labelling • Class diary/scrapbook • Drawing and art materials • Measuring blocks/ pop sticks and camera • Pizza ingredients and pizza toppings • Cooking utensils
Reflecting Key Messages		
4. Music to grow by	15 minutes	<ul style="list-style-type: none"> • <i>Spring</i> by Vivaldi or similar piece of music • CD player

Teacher Information

Learning Task	Useful information and resources to deliver this Learning Task
1. From little things big things grow	<ul style="list-style-type: none"> This learning task introduces students to the concept seeds and grains can be used to produce foods.
2. Baking bread	<ul style="list-style-type: none"> Baking bread helps consolidate the information introduced in learning task one. For ease and time efficiency, use a bread maker. If a bread maker is not available follow the recipe and instructions on the Bread recipe Activity Sheet. Alternatively, make culturally appropriate breads such as damper or flat bread.
3. Pizza garden	<ul style="list-style-type: none"> Growing a herb garden and planting seeds is an engaging way for young children to learn about the nature of food, its production and availability. Growing aromatic herbs such as sage, basil and mint provokes curiosity and interest as students learn to engage their culinary senses. The following website provides detailed information on growing herbs, fruit and vegetables: http://www.kitchengardenssa.com.au/index.php/growing
4. Music to grow by	<ul style="list-style-type: none"> No additional information required.

Introducing Key Messages

Learning Task One: *From little things big things grow*

1. Provide a range of seeds such as sunflower, sesame, apple, pea, watermelon, wheat for students to handle and explore.
2. Talk about the seeds and encourage students to describe the colours, shapes, textures and sizes, as well as their experiences growing seeds or plants.
3. Explain the seeds are asleep and all they need to wake them up is water and sunshine.
4. Explain grains and seeds can be used to make many healthy foods such as bread, rolls, crumpets, flat bread and pasta.
5. Show students some of these products.
6. Explain to make a loaf of bread there are many things that need to happen such as planting and making sure the seeds have enough water and sunshine to grow, before harvesting and taking the grains to a mill to be turned into flour.
7. Show the cover of storybook *The little red hen* and flick through the pages.
8. Use suggested questions to ready students for shared reading.

Ask:

- *Tell me what you can see on the cover of this book.*
 - *The title or name of this book is – The little red hen. Does that give us any clues what the story might be about?*
 - *What did you see when we flicked through the story?*
9. Read story taking time to discuss the different stages of growing wheat.
 10. Use vocabulary such as plant, prepare, ground, earth, soil, sprout, harvest, mill, knead and bake.
 11. Discuss the story using suggested questions.

Ask:

- *Why did the little red hen want to plant the grain of wheat?*
- *What did the little red hen do first? (For example, prepared the ground, planted the grain of wheat, and watered it well).*
- *Did the little red hen have to do anything else to help the grain of wheat grow?*
- *When the grain of wheat had grown, what did the little red hen do?*
- *Why did the little red hen take the wheat to the mill?*
- *What did the little red hen make from the flour?*
- *How do you think the little red hen felt having to do all of the work on her own?*
- *How do you think the little red hen felt when all of the animals wanted to eat the bread?*
- *Why do you think the little red hen wouldn't share the bread with the animals?*
- *If you were the little red hen, would you share the bread? Why?*
- *How do you think the animals felt when the little red hen told them they couldn't have any of the bread?*

- *Do you think the animals might help the little red hen if she plants some more wheat?*
- *How do you think the story might have ended if the animals had helped the little red hen?*

12. Distribute copies of *The little red hen* Activity sheet to students.
13. Explain to students they are to cut and paste pictures in order i.e. from the beginning to the end of the story.
14. Alternatively, give each student a long piece of paper folded into three numbered sections. Students can draw the beginning, middle and end of the story in the corresponding sections.
15. Teach students song 'The little red hen', sung to the tune of 'Here we go round the mulberry bush'.

The Little Red Hen

Once there was a little red hen,
Little red hen, little red hen.
Once there was a little red hen who
found a grain of wheat.

'Who will help me make the flour,
Make the flour, make the flour?
Who will help me make the flour?'
Asked the little red hen.

'Who will help me plant this wheat,
Plant this wheat, plant this wheat?
Who will help me plant this wheat?'
Asked the little red hen.

'We can't help you make the flour,
Make the flour, make the flour.
We can't help you make the flour,'
Said the little hen's friends.

'We can't help you plant the wheat,
Plant the wheat, plant the wheat.
We can't help you plant the wheat,
Said the little hen's friends.

Who will help me bake the bread,
Bake the bread, bake the bread?
Who will help me bake the bread?'
Asked the little red hen.

'Who will help me tend this wheat,
Tend this wheat, tend this wheat?
Who will help me tend this wheat?'
Asked the little red hen.

'We can't help you bake the bread,
Bake the bread, bake the bread.
We can't help you bake the bread,'
Said the little hen's friends.

'We can't help you tend the wheat,
Tend the wheat, tend the wheat.
We can't help you tend the wheat,'
Said the little hen's friends.

'Who will help me eat the bread,
Eat the bread, eat the bread?
Who will help me eat the bread?'
Asked the little red hen.

'Who will help me cut the wheat,
Cut the wheat, cut the wheat?
Who will help me cut the wheat?'
Asked the little red hen.

'We will help you eat the bread,
Eat the bread, eat the bread.
We will help you eat the bread,'
Said the little hen's friends.

'We can't help you cut the wheat,
Cut the wheat, cut the wheat.
We can't help you cut the wheat,
Said the little hen's friends.

'Sorry, but there's none for you,
None for you, none for you.
I did the work, so it's all for me,'
Said the little red hen.

Learning Task Two: *Baking bread*

1. Explain how grains and seeds are healthy for us to eat and suggest students include these in the foods they eat each day.

Ask:

- *Who likes to eat bread?*
 - *What type of bread do you like to eat?*
 - *How does bread help our bodies? (Gives us energy to grow and play)*
 - *Have you ever made bread?*
 - *Who makes the bread we buy at the shops?*
2. Bake a loaf of bread using a bread maker and suitable ingredients. Note the process will take 3-5 hours depending on the machine. If a bread maker is not available follow the recipe and instructions on the *Bread recipe* Activity Sheet.
 3. Have students measure the ingredients as they are added to the bread machine.
 4. Watch through the top of the bread machine as the dough rises and talk about the role of yeast in making bread rise.
 5. Caution students parts of the machine and steam rising will be hot and could cause a burn.
 6. Serve the fresh bread without spread and discuss its taste and texture.
 7. Teach students nursery rhyme *Pat-a-cake*.

Pat-a-cake

Pat-a-cake, pat-a-cake,
Baker's man

Make me a cake as fast as you can
Pat it, prick it and mark it with (child's initial)
And put it in the oven for (child's name) and me.

Variations of Learning Task Two

- Bread is often an important food in cultural celebrations and religious rituals. Show students a range of bread products from other cultures, eg bagels, pita bread, naan bread. Encourage student to taste these different bread products and ask:
 - *Have you tasted any of these bread products before?*
 - *Can you remember where you tasted these?*
 - *What other foods did you eat them with?*

Developing Key Messages

Learning Task Three: *Pizza garden*

PART A

1. Supply seedlings, or time and location permitting, plan a class excursion to a local nursery to purchase seedlings to plant in a 'pizza garden'.
2. Select easily grown herbs and vegetables to use as ingredients in a healthy pizza such as basil, parsley, oregano, cherry tomatoes, capsicum and garlic.
3. Show students how to plant seedlings in pots or garden beds.
4. Ask students to write or draw labels for their plants.
5. Attach these to pop sticks and push into pot or garden bed.

Ask:

- o *What do we need to do to help our seedlings grow?*
- o *How will we know if our seedlings are not growing?*

PART B

6. Keep a class diary, either by drawing pictures or taking photographs, depicting growth of seedlings.
7. Measure height of the plants using an arbitrary unit such as blocks or pop sticks and record in class diary.
8. Teach students song 'I'm a little seed', sung to the tune of 'I'm a little teapot'. Incorporate actions demonstrating the seed underneath the ground and starting to grow up to the light.

I'm a little seed

I'm a little seed planted in the ground,
I like being warm with soil all around.
When the sun comes it's time I know,
To 'POP' my head out,
Now watch me grow!

PART C

9. Use class herbs and vegetables as ingredients to make healthy pizzas. Alternatively, provide already harvested herbs and vegetables for this part of the learning task.
10. Buy packets of dough suitable for making pizza base or use pita or flat bread.
11. Have students identify healthy options for pizza toppings.
12. Talk about basic safety and hygiene practices when eating and preparing food. For example, wash hands and nails before making the pizzas and use clean equipment.
13. Students draw a pizza depicting their favourite foods as toppings. Ask each student to explain their choice of toppings and scribe labels on the drawing.

Reflecting on Key Messages

Learning Task Four: *Music to grow by*

1. Select a piece of classical music such as *Spring* from The Four Seasons by Vivaldi.
2. Place students in pairs or small groups.
3. After listening to the music, invite students to tell their partner or small group how it made them feel and what it made them think.
4. Explain *Spring* was written to make listeners think about plants, flowers and springtime.
5. Divide the class into three groups, explain one group is to pretend to be plants, one to be the sun, and one to be gardeners.
6. Play music again and ask students to interpret the music through movement and dance.
7. Now suggest the students imagine they are apple trees with lots of apples on their branches, or tomato plants with tomatoes growing on them.
8. Play music again and ask students to interpret the music through movement and dance.
9. After listening and moving to music several times and swapping roles, use the following as reflection questions for this unit.

Ask:

- *How did you feel trying to be a plant and trying to grow?*
- *What did you need from the gardener?*
- *What did you need from the sun?*
- *What are some of the best things about growing plants for food and drinks?*

Additional activities

Classroom

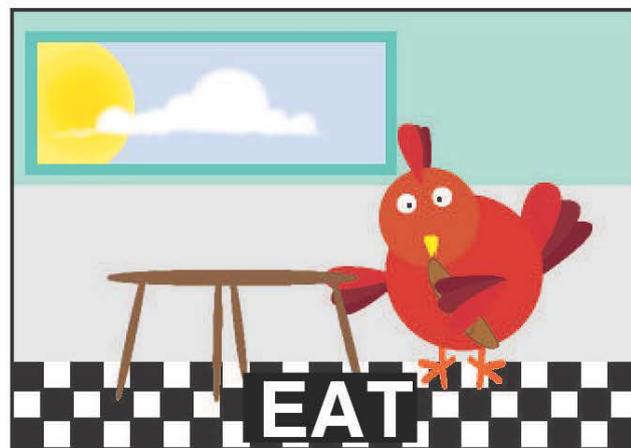
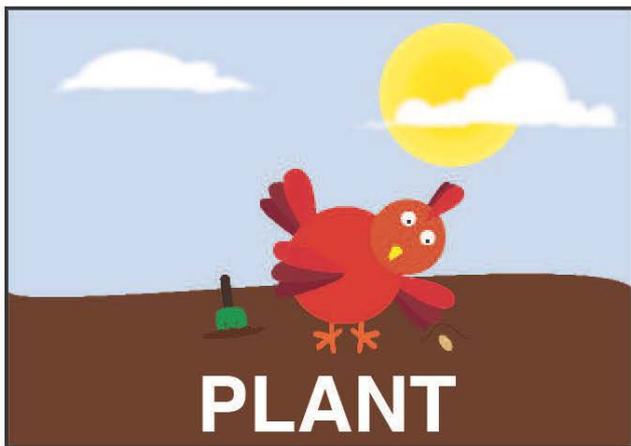
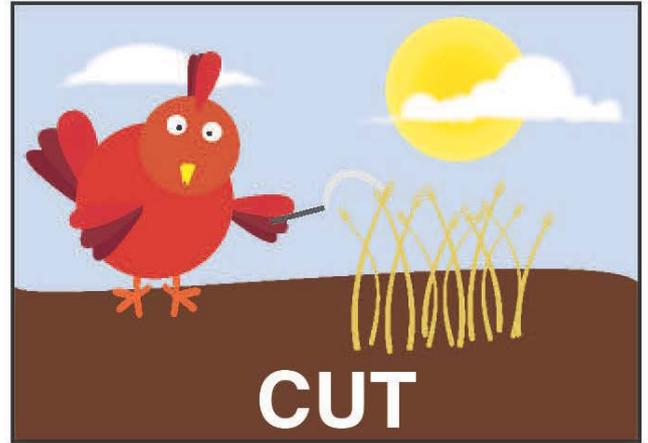
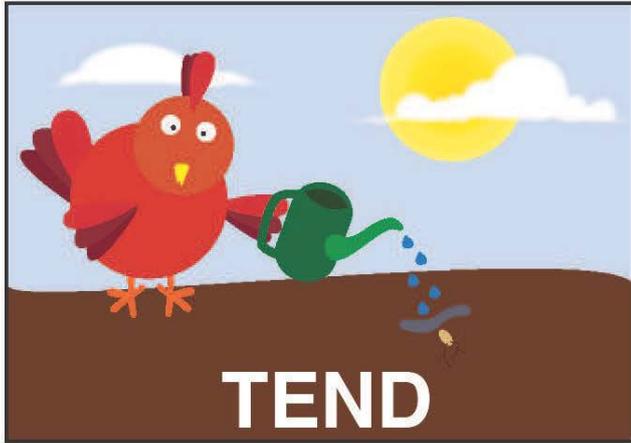
- Select storybooks relating to this unit and place them in a wheelbarrow in a reading corner. Examples could include *Growing vegetable soup* by Lois Ehlert, *The ugly vegetables* by Grace Lin, *Sunflower house* by Eve Bunting, *Grandpa's garden lunch* by Judith Caseley, *Jack and the beanstalk* and *Jody's beans* by Malachy Doyle.
- Provide a range of toy gardening tools and equipment such as rake, pot and shovel for children to use during outdoor play times.

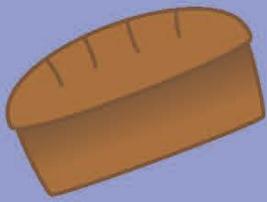
Whole school

- Ask for donations of seedlings from the school community. Invite families to come along and plant these in colourful pots decorated by students. When plants have grown, hold a plant sale or harvest edible plants to sell or use in cooking activities.
- Students make chefs hats to wear while performing *Pat-a-cake* for another class or school assembly. Students can discuss the reasons that chefs may wish to cover their hair.

Little Red Hen Activity

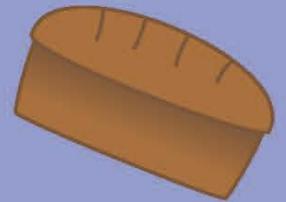
Cut out the pictures. Glue them in order.





Wholemeal Bread Recipe

Activity Sheet

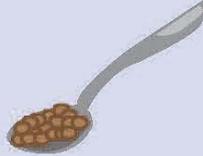


40 minutes preparation  40 mins cooking time

Ingredients



1 teaspoon salt



1 teaspoon brown Sugar



450g Wholemeal Bread Flour



450ml Tepid Water



1 tablespoon plain flour



1 sachet dried yeast

Directions

1. Lightly grease a 13 × 23 cm loaf tin. Set aside in a warm place while you make the dough.
2. Sift the flour into a large mixing bowl, tipping in any bran left in the sieve. Add salt. Stir in the yeast and make a well in the centre. Stir the sugar or honey into the tepid water, then pour into the well in the dry ingredients.
3. Mix together with your clean hand about 2 minutes or until the dough comes away from the side of the bowl; it will be very soft and sticky.
4. Pour the dough into the prepared tin, cover with a damp clean tea-towel and leave in a warm place for about 30 minutes or until the dough has risen almost to the top of the tin.
5. Towards the end of the rising time, preheat the oven to 200°C. Uncover the tin and dust the top of the loaf evenly with the white flour. Bake for 30-40 minutes or until well risen and brown. It should feel light and sound hollow when turned out of the tin and tapped on the base.
6. Transfer the loaf to a wire rack and, if necessary, return it to the oven for 5 minutes to crisp the sides and base. Leave on the wire rack to cool.