# Part 10: Planning a healthy meal

#### Age 8-9

#### THEMATIC STATEMENT

#### **God is Provider**

Having Jesus in our life is just as important as having food and water. While God provides delicious food from His creation, He also provides spiritual food, the word of God, which is the Bible. God is the sustainer of life.

#### **AIM**

To encourage children to explore new possibilities for healthy balanced meals.

#### **OBJECTIVES:** The student will -

#### Knowledge & Understanding Objectives

- understanding the importance of eating at the table.
- understand the components of a balanced healthy meal.
- understand food balance according to the food pyramid.

#### Skills & Process Objectives

- explain the disadvantages of random snacking compared to food planning.
- identify healthy and unhealthy possibilities within the food pyramid.
- design a healthy balanced meal.
- select foods for a healthy breakfast and school lunch.

#### Attitudes & Values Objectives

- understand the importance of doing their best to maintain a healthy lifestyle.
- appreciate the value of healthy food.
- recognize that provision comes from God.
- value the family meal time.
- understand the importance of spiritual food.

Ī	1	Mark 6:30-44 - The loaves and the fishes
	2	John 6:47-58 - Jesus the bread of life
	3	Matthew 4:4 - Man shall not live by bread alone. (Jesus goes into the desert).

1	1 Peter 2:2 - As new-born babies need milk, we need God's word as our spiritual food.
2	Psalm 119:105 - Your word is a lamp to my feet and a light to my path.
3	John 6:35 - Jesus said, "I am the bread of life. Whoever comes to me will not be hungry."

week	Learning and Teaching Activities
1	Discussion:
	What is a 'main meal' and when do we eat it?
	When does your family come together for a meal?
	What do you like about family meal times?
	Why is it better to eat at the table rather than in front of the TV?
	What do we mean by a balanced mail meal?
	What are your family favourites?
	What are 'processed' and 'unprocessed' foods?
	Draw the family table.
	Where does each member of the family usually sit?
	Classify foods
	Take a piece of paper and make two columns: plant foods and animal foods. Make a list of healthy foods in each group.
	Activity Sheet 10a – The food pyramid
	Children can draw a large food pyramid, filling each section with the best foods, leaving out
	highly processed foods like white bread, white, flour, sausages, pastries etc.
	Activity Sheet 10b – A healthy food pie
	Draw a healthy main meal
	Children can draw around a dinner plate and draw a healthy meal inside the circle or
	alternatively, draw a meal on a paper plate.
	Make some mock meals
	Children can draw or cut out healthy food items from food catalogues. These can be arranged
	and glued on to paper plates.
2	Discussion:
	What makes a healthy breakfast?
	List and draw a healthy breakfast
	Children can divide the paper into two columns. On one side, list or draw their usual breakfast.
	One the other side, they list or draw their ideal breakfast. (What changes could be made to make
	the breakfast healthier or more balanced?)
	Make some breakfast foods (See recipe section)
	Make a place mat with a healthy food design.
3	Discussion:
	What makes a healthy school lunch?

What is the best type of bread?

What are some healthy snack foods?

When should we snack, and what is wrong with snacking for a long time? e.g. snacking while watching TV and snacking from the time we get home from school until dinner time.

#### Design a healthy school lunch

Discuss some different kinds of healthy foods to be included. Encourage children to think of some more unusual foods like nuts and seed mix; raw vegetables and home-made dip; soup in a flask.

#### Make a bar graph showing favourite fruits

- Ask children to choose their favourite fruit.
- Go through the class list and record favourite fruit next to each name.
- Collate data. e.g. 5 children chose apples, 6 children chose oranges etc.
- Record data in graph form by drawing a large grid.
- Write the names of favourite fruits across the bottom of the page, one fruit per square.
- Write numbers going up the left hand side of the page, one number per square.
- Draw a bar to show how many children chose the favourite fruits.

#### Make some healthy snacks

See recipe section.

#### **ASSESSMENT TASKS**

1	List foods for a healthy main meal.
2	List foods for a healthy school lunch.
3	List foods a healthy breakfast.

#### **RESOURCES AND EQUIPMENT**

- ingredients for a healthy breakfast
- cutlery and plates for the meal
- ingredients for healthy snack

#### **SUPPORTING BIBLICAL DOCUMENTS**

Themes for Christian Studies Level 3 God is Life

#### INTEGRATION WITH KEY LEARNING AREAS

Maths – draw a pie graph; draw a bar graph

Art – drawing food; collage of mock food on a paper plate.

Literacy – writing food lists

## Part 11: The taste of food

#### Age 8-9

#### THEMATIC STATEMENT

#### **God is Provider and Protector**

God has created the human body with amazing abilities. He has given us a sense of smell and taste so that we can enjoy the taste of food, and also as a protection. Our senses of taste and smell can act as warning signals when something is wrong.

#### **AIM**

To make a study of the senses, taste and smell, and to appreciate the tastes of natural foods.

#### **OBJECTIVES:** The student will -

#### Knowledge & Understanding Objectives

- understand the role of the nervous system in our ability to taste and smell.
- understand the role of taste and smell in protection.
- understand the role of taste buds and their ability to adapt to tastes.

#### Skills & Process Objectives

- classify, compare and identify tastes of foods sweet, salty, bitter, sour.
- identify smells.
- explain the role of the nervous system in our ability to taste and smell.
- explain how taste buds allow us to taste.
- explain the different areas of the tongue responsible for different tastes.

#### Attitudes & Values Objectives

- appreciate the protective mechanisms within the human body.
- be more adventurous in trying new foods.
- persevere with new tastes.

- Exodus 15:22-27 Bitter water made sweet. As the Israelites were crossing the desert, God provided water for them by turning the bitter water to sweet, drinkable water. Their sense of *taste* told them that the water was bitter or sweet.

  James 3:5-6 The tongue not only detects taste, but can be responsible for sweet words or bitter words.
- Exodus 16 Manna in the desert. God provided manna and quails. They had to collect manna each day and not save it for the next day. Those who disobeyed found the extra food they had collected *smelt* rotten (verses 19-20).

3	Exodus 17 - Water from a rock – God faithfully provides.

1	Psalm 20:7 - We trust in the power of the Lord our God.(GNB).
2	Genesis 1:31 - God saw all that He had made, and it was very good.
3	Philippians 4:19 - God shall supply all your needs according to His riches in Christ Jesus.

week	Learning and Teaching Activities
1	Discussion questions: How would you describe the tastes of these foods: lemon; soy sauce, mango?
	Play the taste game Buy various fruits and cut them into pieces on different plates. Take turns in identifying the fruit by taste while blindfolded. Try sweet (most fruits) and sour (lemon, grapefruit)
	Classify tastes
	Children can group foods/pictures of food into: sweet, salty, sour and bitter categories
	Make a taste chart Children cut a piece of paper into the shape of a tongue. Then fold the piece of paper into quarters. Label the sections: sweet, sour, salty, bitter. Different foods can be drawn or cut and pasted into the right taste sections. Bitter foods are sometimes hard to think of. They include coffee, black tea, unsweetened dark chocolate, some herbs such as rosemary.
	Activity Sheet 11a – Taste and smell facts
	Activity Sheet 11b -Mark in the different areas of taste on the tongue.
2	Play the smell game Collect samples of things that smell – e.g. perfume, vinegar, disinfectant, lemon, orange. Children take turns of guessing the smells while blindfolded.
	Play the taste-smell game While blindfolded, children taste some fruits or salad vegetables while holding their nose. Ask: "Can you taste the food?" "What does this show us?"
	"Why do you sometimes lose your sense of taste when you have a cold?"
3	Prepare a salad plate Encourage children to try some raw vegetables that they have not tried before. e.g. raw beetroot sticks, celery, broccoli, snow peas, beans, zucchini, as well as the more common salad vegetables – carrot, cucumber, lettuce, tomato. Try making some dips from the recipe section.
	Draw your salad vegetables Children can draw/write the names of all the salad vegetables they have tried. Write two sentences:  1. My new salad vegetable for today is

2. My favourite salad vegetable is
<b>Take a survey</b> of favourite vegetables. Graph the results.

### **ASSESSMENT TASKS**

	1	Activity Sheets
Ī	2	Explain how smells can protect us – write some points
	3	Make a list - raw vegetables that I would like to eat

## RESOURCES AND EQUIPMENT

- a variety of raw fruits and vegetables
- knife, chopping board and plates

### SUPPORTING BIBLICAL DOCUMENTS

Themes for Christian Studies Level 5 God is Provider

## INTEGRATION WITH KEY LEARNING AREAS

Art – drawing

Maths – survey and graph

Literacy – making lists, writing and discussing

# Part 12: Let's get fit

#### Age 8-9

#### THEMATIC STATEMENT

#### God is a Wise Creator

God has placed within the creation principles for good health. It is our personal responsibility to follow the rules for good health, recognizing that the body is the temple of the Holy Spirit.

#### **AIM**

To foster in children healthy lifestyle principles and to help them take personal responsibility for good health.

### **OBJECTIVES:** The student will -

## Knowledge & Understanding Objectives

- understand the eight rules for healthy living (nutrients, exercise, water, sunlight, toxin-free, air, rest, think happy thoughts).
- understand the importance of exercise.

#### Skills & Process Objectives

- give reasons for following rules for healthy living.
- devise their own exercise program.
- devise and create some healthy junk food alternatives.

### Attitudes & Values Objectives

- take responsibility for their own health.
- show determination, perseverance and self-control.
- be motivated to undertake fitness activities.

1	Philippians 3:14 - I run straight towards the goal in order to win the prize, which is God's call
	through Jesus Christ (GNB).
	(Just as we should try our best for Jesus to live the Christian life, loving others and sharing the
	gospel, we should also try hard to look after our bodies. Keeping fit can be like running towards
	the goal. It takes hard work.)
2	1 Corinthians 6:16 - Don't you know that your body is the temple of the Holy Spirit? (God loves
2	1 Corinthians 6:16 - Don't you know that your body is the temple of the Holy Spirit? (God loves us and wants us to be fit to serve Him.)
3	
_	us and wants us to be fit to serve Him.)

l	Exodus 16 - Manna in the desert. (Remember what happened to the people who did not show
l	self-control, but wanted to collect more manna than God had instructed.)

1	Philippians 3:14 - I run straight towards the goal in order to win the prize, which is God's call through Jesus Christ (GNB).
2	Proverbs 13:13 - If you refuse good advice you are asking for trouble; follow it and you are safe (GNB).
3	Galatians 5:22 - But the fruit of the Spirit produces love, joy, peace, patience, kindness, goodness, faithfulness, gentleness and self-control.

week	Learning and Teaching Activities
1	Discussion:
	What is the meaning of 'fit'?
	Activity sheet 12a – Eight rules for healthy living
	Discuss the importance of each of the eight rules for healthy living and decide how these
	can be implemented.
	Children can make an illustrated chart of the rules for healthy living.
	Activity Sheet 12b Choosing healthy foods
2	Activity Sheet 12b Choosing healthy foods  Activity Sheet 12c - Fruits and vegetable rhymes
2	receivity sheet 12c Truits and vegetable rhymes
	Food additives
	<ul> <li>Place different coloured sweets in individual glasses of water, (one glass per colour).</li> </ul>
	Choose sweets with bright coloured coatings, e.g. coloured sweets with chocolate
	interiors. Children can watch the colourings dissolve into the water, and then write their
	observations.
	• Now look at the colours of fruits and vegetables - e.g. spinach, carrot, kiwi fruit. Which
	colours are the healthiest – natural or artificial colours?
	Use the food additive decoder
	Ask children to collect and bring along food packets that contain additive numbers and assess
	the safety of the ingredients. (Refer to the <b>Food Additive Decoder</b> in this program).
	Quiz game - rules for healthy living
	Use the quiz questions on <b>Activity Sheet 12a</b> . Place questions on separate pieces of paper in a
	box and draw out question slips. This can be played as a 'buzzer' game with two teams. The first
	team to 'beep' gets to answer the question.
3	Devise an exercise plan
	Each child chooses favourite forms of exercise. They can draw up a weekly plan for out-of-
	school exercise. Example:
	Monday 4 p.m. Play with the dog
	Tuesday 4 p.m. Skipping
	Children can plan and implement fitness activities.
	Surveye and graphs
	Surveys and graphs  Children can take surveys on 'out of school' fitness activities that class members are involved.
	Children can take surveys on 'out-of-school' fitness activities that class members are involved

in, and graph results. e.g. 6 children play football, 5 children take swimming lessons

## **ASSESSMENT TASKS**

1	List the eight rules for healthy living
2	List four foods that contain artificial colourings and/or flavourings
3	Make a weekly exercise planner

### RESOURCES AND EQUIPMENT

- sports equipment for class exercise activities. e.g. skipping ropes, balls, gym mat
- coloured sweets, water and glasses

## INTEGRATION WITH KEY LEARNING AREAS

Maths – surveys and graphs

Art – creating symbols for the rules of healthy living

Literacy – writing a procedure - the results of coloured sweets experiment.

# Part 13: The amazing properties of plant foods

Age 9-10

#### THEMATIC STATEMENT

#### **God is Creator and Provider**

God provides through his creation. God's amazing garden, the Garden of Eden, provided human beings with all their nutritional needs. There was no need for meat in God's perfect creation. Despite the fact that God's perfect creation was spoiled by sin, plants still maintain amazing properties for health and healing. Plants also provide clothes for us. God tells us not to worry about food or clothes, because He will provide for us.

#### **AIM**

To help children appreciate the taste of fruits, vegetables and herbs in their natural form and to recognize the healthful properties of plants.

#### **OBJECTIVES:** The student will -

### Knowledge & Understanding Objectives

- understanding the health benefits plant foods.
- understanding the importance of including a wide variety in the diet.

#### Skills & Process Objectives

- list the properties of fruits and vegetables in terms of vitamins, minerals and antioxidants.
- explain the term 'antioxidant'.
- classify fruits according to seasons of harvest summer, autumn, winter, spring.
- list uses of herbs, both culinary and medicinal.
- measure and record growth rates of plants.

#### Attitudes & Values Objectives

- appreciate God's gift of plant foods.
- show responsibility in choosing foods from God's garden.

1	Genesis 1-3 - The Creation and Fall.
	Genesis 1:29-30 - "I give you every seed-bearing plantfor food".
2	Ruth 1-4 - God provided grain for Ruth and Naomi.
3	Matthew 6:25-34 - Do not worry about food or clothes.

1	Psalm 104:14 - You make grass grow for the cattle and plants for man to use, so that he can
	grow crop (GNB)
2	Genesis 1:29-30 "I give you every seed-bearing plantfor food"
3	Matthew 6:28-29 - And why do you worry about clothes? See how the lilies of the field grow.
	They do not labour or spin. Yet not even Solomon in all his splendour was dressed like one of
	these.

week	Learning and Teaching Activities
1	Discussion:
	What are your favourite fruits? What are your favourite vegetables?
	Are there any fruits or vegetables that you have never tasted?
	Which vegetables can we eat raw?
	Why are raw vegetables so good for us?
	Why is it important to wash all raw fruits and vegetables and our hands?
	What are herbs used for?
	Do you know the names of some?
	Make a personal daily food plan
	Children can write personal healthy menus for breakfast, lunch, snacks and dinner. They should
	include a healthy intake of fruit and vegetables – raw and cooked, (at least 2 pieces of fruit and
	five different kinds of vegetables)
	Fruits and vegetables in season
	Make a chart showing which fruits/vegetables ripen in which seasons. e.g.
	summer fruits: cherries, apricots, peaches, plums.
	autumn fruits: apples, pears, berries.
	winter and spring fruits: oranges, lemons, grapefruits, kiwi fruits.
	summer and autumn vegetables: lettuce, tomatoes, beans, peas.
	winter and spring vegetables: broccoli, cabbages, cauliflower, Brussels sprouts.
	Children can fold a piece of paper into quarters and draw fruits for each season.
	Grow some herbs or vegetables
	Discuss the many uses for herbs. Some are used mainly for their flavours in cooking, e.g.
	oregano, used in Italian dishes. Some herbs act as medicines and can help you when we have a
	health problem. e.g. chamomile to help you sleep; eucalyptus is good to breathe in when you
	have a cold.
	Children can:
	Watch herbs or vegetables grow and record the growth rates.
	Make a list of kitchen herbs
	Taste some herbs.
	Prepare dishes using herbs and write recipes.
2	Discussion:
	What are some interesting ways to prepare raw fruits and vegetables?
	Which fruits are the sweetest when ripe? Which ones are sour even when ripe?
	Why should fruits and vegetables be ripe when we eat them?
	What important job do these foods do in keeping us healthy?

#### Activity Sheet 13a - God our Father cares for us

#### Make a fruit salad or a fresh garden salad

Prepare an appetising array of raw fruits or vegetables.

#### Plan a banquet with plant foods

Decide on the table setting and prepare the menu.

#### Weigh fruits and vegetables

Ask children to make estimates: How many apples to one kilo?

Prepare some vegetable dishes (see recipe section).

#### Make a vegetable man or vegetable animal

Provide potatoes, carrots, celery. Children can use toothpicks to put together pieces of vegetables, to form a character or an animal. Photograph each child with their creation and ask them to write a description of how they made it. e.g. "This is my vegetable man. I used a potato for the body, a piece of carrot for the head and celery for the hair".

#### 3 Discussion:

Why should we eat a wide variety of plant foods?

What different coloured vegetables can you think of?

Why should we eat lots of different coloured vegetables?

What are vitamins and minerals and why are they important?

Why are green vegetables important?

What are viruses? How can we help our body get rid of poisons and viruses?

What kind of food can prevent our body from working well?

#### **Activity Sheet 13b – Plant food facts**

#### Draw a cartoon

After completing Activity Sheet 13b, children can use their imagination to think about the role of anti-oxidants in the body. Antioxidants are the 'good guys' who clean up the 'bad guys'. Children can use symbols for antioxidants. They can draw a cartoon to show this idea.

#### **ASSESSMENT TASKS**

1	List the names of fruits and vegetables eaten in the week (My personal food plan).
2	Invent and record a plant food recipe.
3	Activity Sheet 13b

#### RESOURCES AND EQUIPMENT

- a variety of fruits and vegetables that can be eaten raw, (including nuts).
- chopping boards and knives, plates, bowls and cutlery for making salads and fruit salad.
- pots, potting mix and seeds for growing herbs or vegetables

# SUPPORTING BIBLICAL DOCUMENTS

Themes for Christian Studies Level 3 God is Provider

## INTEGRATION WITH KEY LEARNING AREAS

Maths – weighing, measuring and recording growth rates of plants.

Literacy – writing a recipe.

Art – drawing cartoons.

# Part 14: Classifying food plants

### Age 9-10

#### THEMATIC STATEMENT

#### God is a Faithful Provider

We can always depend on God to provide for us. We should thank God daily for the food that He has created for us.

#### **AIM**

To look at food plants as they are grown in the garden, and identify the edible parts: seeds; stalks; roots; fruits; flowers; leaves.

#### **OBJECTIVES:** The student will -

### Knowledge & Understanding Objectives

- understanding the parts of a plant.
- know that plants can be grown from seeds or cuttings.

### Skills & Process Objectives

- classify food plants according to plant parts: seeds; stalks; stems; roots; fruits; flowers; leaves.
- identify food plants grown in the local area.
- explain some of the activities of farmers who grow food crops.
- list the requirements for plant growth.

### Attitudes & Values Objectives

- appreciate the variety of food plants
- trust in God.

#### **BIBLE STORIES AND KEY PASSAGES**

1	Exodus 15:22-27 - Provision of water in the desert
2	Exodus 16 - Provision of manna and quails
3	Exodus 17 - Water from a rock

#### **MEMORY VERSES**

sake.

1	Psalm 23:1-2 - The Lord is my shepherd, I shall not be in want. He makes me lie down in green
	pastures; He leads me beside quiet waters.
2	Psalm 23:3 - He restores my soul. He guides me in the paths of righteousness for His name's

Psalm 23:4 - Even though I walk through the valley of the shadow of death I will fear no evil, for you are with me; your rod and staff comfort me.

week	Learning and Teaching Activities
1	Discussion:
	Where do apples and oranges come from?
	Can you think of any other fruits that grow on trees?
	What is a fruit? (The part of the plant that contains seeds)
	Where do potatoes and carrots grow?
	Can you think of any other vegetables that grow under the ground?
	Can you think of any vegetables that are the stems of plants? (celery, asparagus)
	Which vegetables are the flowers? (cauliflower and broccoli)
	Which are leaves? (spinach, cabbage)
	Which are seeds? (cereals)
	What does a plant need in order to grow?
	Activity Sheet 14a The best foods
	Children can:
	• <b>Draw</b> food plants, as you would find them growing in the ground. Label the edible part
	of the plant – root, leaf, stalk, stem or flower. (A potato is a swollen underground stem
	called a tuber).
	Classify fruits and vegetables - Children can group fruits and vegetables on tables as
	follows: seeds; stalks; stems; roots; fruits; flowers; leaves.
	Take an excursion to an orchard or market garden and write a report.
	Grow some vegetables.
2	Make a chart
	Children can list fruits, vegetables and cereals under these headings:
	seeds; stalks; roots; fruits; flowers; leaves.
	Activity Sheet 14b –Growing new plants from old ones
3	Make vegetable prints
	Children can cut vegetables and print them onto paper.
	Place dish-washing sponges in the bottom of ice-cream containers and pour a small
	amount of paint onto each sponge.
	Children dip the vegetable shape into the paint and make a print. Pieces of celery make
	an interesting design.
	Play animal, vegetable
	One child thinks of a food that is animal or vegetable but does not disclose the food
	he/she is thinking about. e.g. a banana
	Children in class take turns to ask questions in order to guess the name of the food. The
	questions must be able to be answered 'yes' or 'no'. e.g. Is it animal? Is it red?
	Observe growth of vegetables
	Observe growth of vegetables Children can observe growth of vegetables and describe stages of growth.
	Prepare vegetable recipes using recipes from the recipe section.
	11chaire regetable recipes using recipes from the recipe section.

## ASSESSMENT TASKS

1	Label the parts of a food plant
2	Describe growth of a new plant from an old one
3	Describe growth of a vegetable

### **RESOURCES AND EQUIPMENT**

- a variety of fruits and vegetables
- tables for setting out produce
- cardboard signs: seeds; stalks; stems; roots; fruits; flowers; leaves
- paint and sponges for vegetable prints
- seeds and soil for growing plants

## SUPPORTING BIBLICAL DOCUMENTS

Themes for Christian Studies Level 5 God is Provider

### INTEGRATION WITH KEY LEARNING AREAS

Maths – measuring plants.

Art – vegetable prints.

Literacy – written descriptions of plant growth.

## Part 15: The miracle of seeds

### Age 9-10

#### THEMATIC STATEMENT

#### God is Creator, God is Life

The miracle of the seed is a miracle that God has placed within the creation. The seed is a symbol of new life and new growth. For the Christian, a seed of faith can grow and develop into a strong relationship with Jesus.

#### **AIM**

To make a study of plant reproduction through seeds and to appreciate the food value of seeds.

#### **OBJECTIVES:** The student will -

#### Knowledge & Understanding Objectives

- understand the stages of seed germination.
- know the requirements for plant growth.
- understand the food value of seeds.

#### Skills & Process Objectives

- label the parts of a wheat seed.
- describe the events in the growth of a plant from a seed.
- list the requirements for sprouting seeds.
- explain the food value of seeds.
- list the seeds that we eat.

### Attitudes & Values Objectives

- thankfulness
- grow in faith in Jesus Christ.
- live the Christian life.
- show God's love by staying connected to Jesus.

#### **BIBLE STORIES AND KEY PASSAGES**

1	John 12:24 - The grain of wheat that falls into the ground and dies, producing many seeds.
	Matthew 13: 31 - Parable of the mustard seeds
2	Mark 4:1-8 - Parable of the sower
3	John 15:1-11 - The vine

#### **MEMORY VERSES**

1	2 Corinthians 5:17 - Therefore if anyone is in Christ he is a new creation; the old has gone, the
	new has come!
2	John 11:25-26 - Jesus said, "I am the resurrection and the life. Whoever believes in me will live
	again, even though he dies, and whoever lives and believes in me will never die."
3	John 12:24 - Unless a grain of wheat falls into the ground and dies, it remains only a single seed.
	But if it dies it produces many seeds.

week	Learning and Teaching Activities
1	Discussion:
	Can you think of any seeds that we can eat?
	Which seeds do you cook and which ones do you eat raw?
	Why did God make seeds?
	Which animals like to eat seeds?
	Activity Sheet 15a Food from God's garden
	Children can:
	Make two seed collections
	Make a collection seeds that can be eaten raw. e.g. sunflower seeds, pepitas (pumpkin seeds), sesame seeds.
	<ol> <li>Make a collection of other edible seeds, such as rice, barley and lentils, which need to be cooked.</li> </ol>
	Seeds from food plants
	Find seeds in food plants. Cut open fruits and vegetables to find the seeds inside. Plant some of these seeds in soil. e.g. pumpkin seeds, apple seeds.
	Observe seed germination
	Look at the variety of seeds in a packet of bird seed, and plant some of it on cotton wool. Using a seed sprouter, sprout some alfalfa or mung beans.
	Make a seed collage Make a picture by arranging different types of seeds in patterns on a sheet of cardboard. Seeds can be glued inside outlined shapes, or glued in lines. Supply seeds of various colours including dried beans and lentils.
	<b>Draw</b> some fruits and vegetables showing the seeds inside.
	Eat some seeds
	Choose edible raw seeds such as sunflower seeds, pumpkin seeds, and cooked seeds such as rice.
2	Grow an avocado seed in water Save the large seed from and avocado and place a toothpick into each side. Use the toothpicks to suspend the avocado seed over the jar. (The toothpicks rest on top of the jar.) Pour water into the jar so that half the seed is in the water and half out. After time, a plant will grow from it.
	Grow some wheat Children can observe wheat grains and discuss how these are used for making bread. Grow some wheat on some cotton wool.

#### Grind some wheat and see what is inside

A coffee grinder will grind wheat. Discuss the process of making flour and the uses of flour.

Make some bread (see recipe section)

#### 3 Grow a bean seed

Children can grow a bean seed on the inside of a glass jar, covering it with a layer of blotting paper. Water the blotting paper and expose the jar to light. Do the same experiment but place the jar in the dark. Will the seed germinate?

Children can make a journal to show development of the bean seed, giving dates: when 'planted' between glass and blotting paper; when the root appeared; when the shoot appeared; when the first green leaves were seen. They can draw and describe the stages in the growth of the bean seedling.

**Activity Sheet 15b – Growing seeds** 

#### **ASSESSMENT TASKS**

1	List the seeds we eat.
2	Draw a diagram to show what a plant needs for growth.
3	Write the steps in seed germination.

#### **RESOURCES AND EQUIPMENT**

- 1 packet of bird seed, preferably large parrot seed mix, for collage
- 1 packet alfalfa seeds
- 1 packet mung beans
- 1 seed sprouter
- avocado seeds
- glass jars and tooth picks
- cotton wool
- soil and containers
- water
- edible seeds which can be eaten raw, such as sesame seeds, pepitas, sunflower seeds and pumpkin seeds
- edible seeds which need to be cooked, such as rice, pearl barley, wheat, millet, dried peas, beans and lentils

### **SUPPORTING BIBLICAL DOCUMENTS**

Themes for Christian Studies Level 4 God is Life

#### INTEGRATION WITH KEY LEARNING AREAS

Art – seed collage

Literacy – Write the steps in seed germination

Maths – Count the number of seeds needed to fill a teaspoon. Calculate how many seeds needed to fill a tablespoon.