

GRADE 5 KAZIKIDZ TEACHING MATERIAL

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Associated Institute of the University of Basel



UNIVERSITY OF BASEL
Department of Sport, Exercise and Health



The Novartis Foundation

LESSON PLANS FOR Grade











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The KaziKidz toolkit is a holistic educational and instructional tool for primary school teachers and arose from the project KaziBantu. Kazi means "active" and Bantu means "people" in Swahili, one of the national languages of South Africa. The lessons have been designed in conjunction with South Africa's Curriculum and Assessment Policy Statement (CAPS). Ready-to-use assessments can be found at the end of each section which may be integrated into formal assessments of learner performance and can supplement the school academic curricula. The aim is to lead learners through content, games and activities, and conducted in a joyful manner that encourages and promotes a healthy lifestyle throughout childhood into adolescence. By using KaziKidz you will be contributing to the wellbeing and health of your learners.

While neglected tropical diseases (NTDs) do not feature prominently in the burden of disease statistics of South Africa, some NTDs are common in disadvantaged populations, especially in children growing up in poor neighborhoods. Chronic helminth infections (worms) not only cause morbidity, but also negatively affect the cognitive and physical development and school performance of children. By addressing these conditions through education about appropriate health and hygiene behaviors for your school child (3 x 40 minute lessons per grade for grades 1 to 7), both you and the school child are at a reduced risk for infectious communicable diseases.

Inadequate intake of nutritional foods may adversely affect the health and well-being of primary schoolchildren from disadvantaged areas. The limited dietary diversity is further influenced by the lack of nutritional options offered at the tuck shops and food vendors at the schools.



The general wellbeing of primary schoolchildren from poor neighbourhoods may also be affected by lack of nutritional value, since schoolchildren usually eat food served by tuck shops and vendors during school hours. The South African National School Nutrition Programme (NSNP) attempts to address energy, protein and micronutrient deficiencies and alleviate short-term hunger by providing food that supplies 30% of the daily energy requirements of a child. In order to complement this, the nutritional education lessons (3 x 40 minute lessons per grade for grades 1 to 7) should bring dietetics closer to the learners in a playful way. Furthermore, it aims to encourage sustainable healthy eating habits throughout their life. *Kazi* and lesson plans in green will guide you through the Health, hygiene and Nutrition teaching materials.

Now, we wish you a lot of fun with the implementation of the *KaziKidz* teaching material and many great experiences with your schoolchildren.

OVERVIEW OF THE KAZIKIDZ HEALTH-AND-HYGIENE AND NUTRITION CONTENT PILLAR AND ASSESSMENT STRUCTURE

GRADES SCHOOL LEVELS













Health and hygiene lessons: 3

Assessments incl. solutions: 2

Nutrition lessons: 3

Health and hygiene lessons: 3 **Nutrition lessons: 3**

Assessments incl. solutions: 2

Health and hygiene lessons: 3

Assessments incl. solutions: 2

Nutrition lessons: 3





Health and hygiene lessons: 3 **Nutrition lessons: 3** Assessments incl. solutions: 2

Health and hygiene lessons: 3

Nutrition lessons: 3

Assessments incl. solutions: 2

Health and hygiene lessons: 3 **Nutrition lessons: 3**

Assessments incl. solutions: 2

Senior Phase

Intermediate

Phase

Health and hygiene lessons: 3

Nutrition lessons: 3

Assessments incl. solutions: 2

HEALTH-AND-HYGIENE AND NUTRITION









Grade 5 | Lesson 1 | Time: 40 min



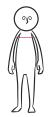
Aim

- To increase knowledge about the importance of water in our body
- To learn why we need water and nutrition to live
- To know the water balance

Introduction

Introduction Time: ~ 5 min

Prepare a diagram of the human body in outline on the blackboard. Let the learners guess what fraction of the body is made up of water. Draw dotted lines across the diagram to represent their answers. After that, tell the learners that nearly 3/4 (75%) of the human body (by weight) is water. Draw a red line across the diagram to show this. Ask the learners why they think this much water is necessary.



Without enough water in your diet, you would die in a few days. It is important to drink enough clean water every day to stay healthy.

Importance of water and nutrition

Main part Time: ~ 15 min

How to discuss

Ask the learners why we need nutrition as well as water to survive.

Draw three bubbles around the human body outline and write the three main terms in the bubbles. Now ask the learners the meaning of these terms, discuss them and give some examples.

Growth: Our body is made up of millions of cells. These cells need substances called proteins so that they can grow. Proteins are sometimes called the 'building blocks' of the body and they are necessary so that the body can grow or can repair itself. The best examples of foods that are sources of proteins are meat, chicken, fish, eggs and milk

Energy: Some foods contain energy to help you to stay active, working and playing, and also for growth. We need this energy so that we can breathe, the blood can circulate, our body can regulate its temperature and our heart can beat.

Health: In addition to supporting growth and the energy, food also contains substances called minerals and vitamins which are essential for the healthy working of our body.

Now ask some of the learners what health-supporting food they have eaten during that day.

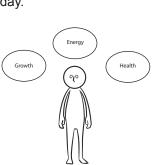
Which water is safe to drink?

Ask the learners which of the waters listed below are safe to drink. If they are not sure, discuss why this could be safe or not. Add to the list if the learners have more ideas.

- River water (it depends)
- Purified water
- Tap water (it depends)
- Sea water (no, if not treated)
- Water that has been bought in a bottle
- Water that has been boiled in a kettle

Now ask the learners what will happen if you drink polluted water? Tummy pain and diarrhoea What problems are caused by diarrhoea? Because of diarrhoea you will lose a lot of water which you need! Due to this loss of water you will feel ill. It is called dehydration. Dehydration can also occur if you do not drink enough while you are sweating.

What to do if you are suffering from diarrhoea: Heat a litre of water and add two spoons of sugar and a quarter spoon of salt for drinking. This will assist with recovery.



Grade 5 | Lesson 1 | Time: 40 min

Water balance

Main part Time: ~ 15 min

How to explain

Let us have a closer look at the water balance of the human body!

First, ask the learners to think about all the ways they lose water in a day. After that, ask them how they think they take water into their bodies (other than drinking).

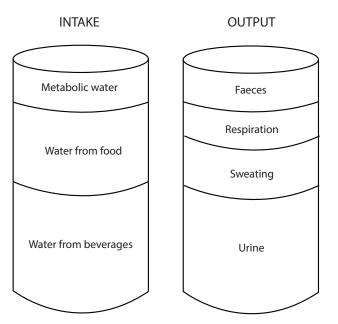
Draw two columns of the same height and write the titles INTAKE and OUTPUT above the columns. A learner has an intake and output of approximately 1.5 litres per day. Explain that a healthy body must have a balance between intake and output. If you suffer from diarrhoea, the balance is disturbed and your body will not have enough water to work properly.

What will happen if your intake is lower?

· You are thirsty, get tired, have no need for the toilet, get confused

What will happen if your output is lower?

· You will need to go to the toilet often



Summary

Wrap up Time: ~ 5 min

Repeat what you have learnt today!

Grade 5 | Lesson 2 | Time: 40 min



Clean and safe environment

Health-and-hygiene: Intermediate phase

Materials

- Sheet 'Our Environment'
- Rubbish bags

Aim

- To increase knowledge about a clean environment
- How can you help?

Introduction

Introduction Time: ~ 10 min

Show the picture of Nelson Mandela and his quote. Distribute the sheets, let the learners read the quote, and give them some time to discuss the first question. After a few minutes, start to discuss the question, and have a group discussion with everybody. Then start with the second question, to be discussed in groups. Ask each group what the members do to protect the environment.

Activity

Introduction Time: ~ 25 min

How to conduct

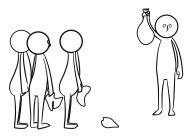
Divide the class into groups of 5 learners. Each group creates a name for the group.

Accompany the learners outside the classroom and instruct them to walk around in the school area to collect all the rubbish they can find (no syringes or sharp objects). Give them 10 to 15 minutes to return to the meeting point and make a heap of their collected rubbish. The group with the biggest heap wins.

Examine the rubbish and try to identify what type of waste is mostly found (e.g. plastic). Ask the learners if it is right to throw the rubbish on the floor.

Discuss why it is important to throw the rubbish into a bin. The learners should wash their hands and return to the classroom.

(If there is still time in the lesson, take the learners outside the school area for a short walk and instruct them to simply observe the rubbish on the ground - no collecting.)







Summary

Wrap up Time: ~ 5 min

Ask the learners what they remember from the lesson.

Create some time to allow the learners to ask any questions about the five food groups or the food plate guide. Ask the learners how they might apply this at home.

Reflect on the importance of enjoying healthy, balanced meals that include a variety of foods from each group.



Fir	st and last name:
Da	te:
Cla	ass:
pla	nd I dream of the vast deserts, the forests, and all of the wilderness of our continent, wild aces that we should protect as a precious heritage for our children and for our children's ildren. We must never forget that it is our duty to protect the environment."
1.	- Nelson Mandela What did Nelson Mandela mean by "it is our duty to protect the environment"?
2.	Do you protect the environment? If yes, how do you do it? Discuss in groups.
3.	Let's see how we can protect our environment on the environmental walk!
4.	Write down 3 waste items that you have found on the environmental walk.
	1
5.	3 What can be done to prevent this pollution?

Grade 5 | Lesson 3 | Time: 40 min



Materials

- Worksheet 'Substance Abuse'
- A3 paper

Aim

- To increase knowledge about substance abuse and addiction
- · To understand the difference between legal and illegal drugs
- To know the effects of smoking and drinking alcohol

Introduction

Introduction Time: ~ 5 min

Welcome the learners and introduce the day's topic.

Ask the learners what they know about substance abuse. Write everything they say on the blackboard, to have an overview.

Worksheet 'Substance Abuse'

Main part Time: ~ 20 min

How to execute

Go through the questions with learners. Give them enough time to think and discuss with their partners and then discuss the questions with the whole class. Write down the solutions, so the learners have the correct answers.

Questions > see answers on solution sheet:

- 1. Definitions of 'Substance Abuse' and 'Addiction'
- 2. Different types of drugs
- 3. Smoking and drinking
- 4. Short-term and long-term effects
- 5. Why it is better to live a life without drugs?
- 6. What have you learnt today?



A healthy life without drugs!

Main part Time: ~ 10 min

How to execute

On an A3 paper, write in big letters 'We say YES to a healthy life without drugs'. You or the learners design the paper (poster) freely as you wish.

After that, let every learner sign the 'drug-free contract' and hang/stick the poster up on the wall as a reminder.

Summary

Wrap up Time: ~ 5 min

Let's repeat what we have learnt today!



Fir	rst and last	name:				
Da	ate:		_			
Cla	ass:		-			
1.	Substance	e abuse:				
	Addiction:	:				
2.	There are	different types of drugs. gs:	. Write down	as many as you	know:	
	Legal drug	gs for adults:				
	Illegal dru	gs:				
3.		the two legal drugs for nich these substances wi				

Grade 5 | Lesson 3 | Health-and-hygiene



4.	Decide which ones are short-term and which ones are long-term effects. Mark them with two different colours.
5.	Why is it better to live a life without drugs? Discuss this with your partner and write down all the answers you can.
3.	What have you learnt today?
	Substance abuse, including drugs, is bad because
	•
	•
	•
	Cou NO to outotopoo obuso

Say NO to substance abuse, say YES to a healthy life without drugs!



Grade 5 | Lesson 3 | Health-and-hygiene



1. Ask the children if they know the meaning of these two terms and let them first explain in their own words. After that, tell them the definition and write it down with them.

Substance abuse:

Drugs are substances taken to change the way the mind or body works. Drugs can come from a drug store, from plants that grow wild, or drugs which are made in laboratories.

Addiction:

Somebody who uses drugs can become dependent on them, or addicted, if he or she desires a drug all of the time. This means that the person's body or mind becomes so accustomed to having this drug that he or she cannot function well without it. Once someone is addicted, it is very hard to stop taking drugs

2. There are different types of drugs. Write down as many as you know:

Be sure that the learners understand the differences. Medication as a legal drug can be very helpful in the right circumstances and dosage. Legal drugs for adults are only legal when you have reached a certain age. Illegal drugs are illegal for everyone and are harmful for your health!

Legal drugs: Caffeine (in coffee, tea, energy drinks, coke, etc.); medication (for headaches, colds, and other illnesses).

Legal drugs for adults: Alcohol, Nicotine (in cigarettes)

Illegal drugs: Marijuana, Cocaine

3. Now write the two legal drugs for adults in the top line, one in each box. Think of the negative effects which these substances will cause, and write them in the correct boxes beneath the titles:

Smoking - nicotine	Drinking - alcohol
Bad smell on your clothes	Bad headache
Lung cancer	Addiction
Yellow teeth	Difficult to focus/see
Smelly hair	Liver damage
Persistent coughing	Heart disease
Heart disease	Nausea and vomiting
Bad breath	Slurred speech
Acute coughing	Cancer of the stomach
Makes your skin look older	Brain damage
Bad taste in mouth	Clumsy movement

There are more results than the points above, but the children should get an idea of what these substances can lead to.

Grade 5 | Lesson 3 | Health-and-hygiene



4. Decide which ones are short-term and which ones are long-term effects. Mark them with two different colours.

Tell the children that there are short-term and long-term effects. The short-term effects will disappear after a while but most of the long-term effects will stay for a lifetime.

5. Why is it better to live a life without drugs? Discuss with your partner and write down all the answers you can.

If they need a jump start, give them some input like the sentences below.

YOU:

- keep your body healthy
- have a clear mind
- get good grades in school
- achieve your goals
- can participate in activities from school or your community
- keep your friends
- obey the law
- are safe
- 6. What have you learnt today?

Substance abuse, including drugs, is bad because...

(Let the children write down some important points. Give them some ideas if they need help, or let them discuss this with their partners.)

Say NO to substance abuse, say YES to a healthy life without drugs!

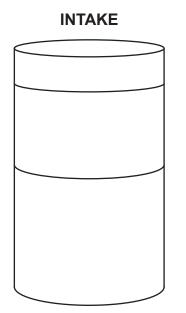


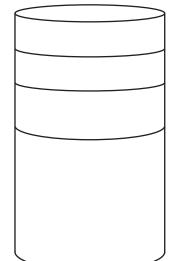


Assessment: Importance of water and nutrition, keeping our environment clean and safe & substance abuse

First and last name:		
Date:		
Class:	-	
1. Fill in the circles with the correct s We need water and nutrition for ()		

2. Water balance – fill in the right terms.





OUTPUT

- Respiration
- Sweating
- Water from food
- Urine
- Water from beverages
- Faeces
- Metabolic water

(3.5 marks)

(1.5 marks)



Assessment: Importance of water and nutrition, keeping our environment clean and safe & substance abuse

3.	Nearly	_ % of the human body is water.	(1 mark)
4.	Write down	how you protect the environment	
			(2 marks)
5.	Describe two	o possibilities to keep the school grounds clean.	
	1		
	2		
			(2 marks)
6.	Write down	two examples for each type.	
	Legal drugs:	1	
		2	
	Legal drugs	1	
	for adults	2	
	Illegal drugs	1	
	- -	2	
			(3 marks)



Assessment: Importance of water and nutrition, keeping our environment clean and safe & substance abuse

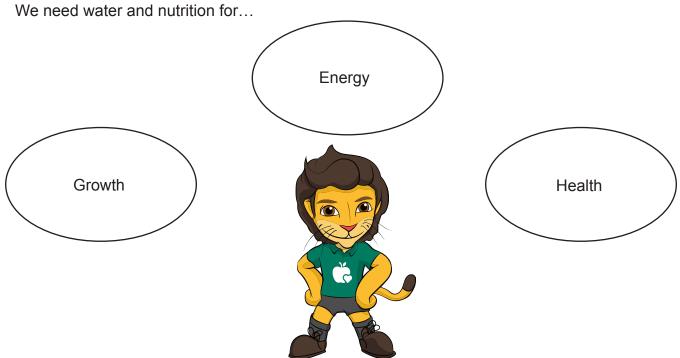
t	he boxes (grey) on the top and write the correct I	etters underneath.	
 (((((((((a) Liver damage b) Yellow teeth c) Persistent coughing d) Bad headache e) Lung cancer f) Cancer of the stomach g) Brain damage h) Bad smell on your clothes f) Makes your skin looks older h) Nausea and vomiting		
8. \	Write down 2 different points which show us that	_	(5 marks) tter.
	1		(2 marks)

7. Negative effects of the two most common legal drugs for adults. Write the two legal drugs in



Assessment Memo: Importance of water and nutrition, keeping our environment clean and safe & substance abuse

1. Fill in the circles with the correct solutions.

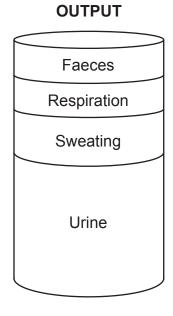


(1.5 marks)

2. Water balance – fill in the right terms.

	INTANL
<	
	Metabolic water
	Water from food
	Water from beverages

INTAKE



- Respiration
- Sweating
- · Water from food
- Urine
- · Water from beverages
- Faeces
- · Metabolic water

(3.5 marks)



Assessment Memo: Importance of water and nutrition, keeping our environment clean and safe & substance abuse

3. Nearly <u>75</u>% of the human body is water.

(1 mark)

4. Write down how you protect the environment.

Let the children write how they protect the environment. Give points for meaningful answers, including those mentioned in class.

(2 marks)

5. Describe two possibilities to keep the school grounds clean.

Give points for meaningful answers, including those mentioned in class like throwing waste in a bin.

(2 marks)

6. Write down two examples for each type.

Legal drugs: 1. <u>Caffeine</u>

2. Medication

Legal drugs 1. Alcohol

for adults 2. Nicotine

Illegal drugs 1. Marijuana

2. Cocaine

(3 marks)



Assessment Memo: Importance of water and nutrition, keeping our environment clean and safe & substance abuse

- 7. Negative effects of the two most common legal drugs for adults. Write the two legal drugs in the boxes (grey) on the top and write the correct letters underneath.
 - a) Liver damage
 - b) Yellow teeth
 - c) Persistent coughing
 - d) Bad headache
 - e) Lung cancer
 - f) Cancer of the stomach
 - g) Brain damage
 - h) Bad smell on your clothes
 - i) Makes your skin look older
 - j) Nausea and vomiting

Nicotine	Alcohol
Yellow teeth	Liver damage
Persistent coughing	Bad headache
Lung cancer	Cancer of the stomach
Bad smell on your clothes	Brain damage
Makes your skin look older	Nausea and vomiting

(5 marks)

- 8. Write down 2 different points which show us that a life without drugs is better.
 - Keep your body healthy
 - · Have a clear mind
 - Get good grades in school
 - · Achieve your goals
 - Keep your friends
 - Can participate in activities from school or your community
 - · Obey the law
 - Are safe

(2 marks)

Scale of achievement: Grading

Description of competence	Percentage	Final mark
Outstanding achievement	80-100	7
Meritorious achievement	70-79	6
Substantial achievement	60-69	5
Adequate achievement	50-59	4
Moderate achievement	40-49	3
Elementary achievement	30-39	2
Not achieved	0-29	1

Grade 5 | Lesson 1 | Time: 40 min



Materials

- South African Food-Based Dietary Guidelines Poster
- Board and Board Markers
- Food Flash Cards (healthy and unhealthy foods)
- Prestick

- Worksheet 5.1.1.
- Crayons or Pencils
- Worksheet 5.1.2.
- Story Josh and Ellie's Picnic
 Adventure (http://magicfrogtales.com/5-free-short-stories-eat-healthy-be-healthy-and-smile/#1)

Aim

- To revise knowledge of 'everyday' and 'sometimes' foods
- To list the South African Food-Based Dietary Guidelines
- · To comprehend the purpose of the guidelines
- To associate poor dietary habits with lifestyle diseases
- To demonstrate the ability to apply the guidelines individual diets

Introduction

Introduction Time: ~ 5 min

Welcome the learners, introduce the day's topic and outline the planned lesson.

Ice breaker

Draw two columns on the board, with the headings 'Yummy' and 'Not Yummy'.

Hand out a food flash card to each of the learners. Ensure there is a mix of healthy and unhealthy foods. Ask the

learners to decide whether the food on their card is 'yummy' or 'not yummy' and stick the card under the relevant heading.

Once all the cards are placed, ask the learners to decide whether the foods are healthy. Demonstrate to them that sometimes their favourite foods are not always the healthier choice. Explain that the healthy foods can be enjoyed every day (everyday foods) and the unhealthier foods can be eaten sometimes (sometimes foods). It is important not to allow sometimes foods to replace everyday foods.

Yummy	Not yummy

Group Discussion

Main part Time: ~ 15 min

Ask the learners:

'What are lifestyle diseases?'

'Can anyone give an example of a lifestyle disease?'

'Are some lifestyle diseases caused by the foods that we eat?'

A lifestyle disease is a disease associated with the way a person lives. Unhealthy dietary habits (unhealthy diets) and a lack of exercise can lead to the development of a lifestyle disease.

An unhealthy diet consists of too much fat, sugar and salt, and not enough fresh fruit and vegetables. Examples of lifestyle diseases are diabetes, obesity, heart disease, tooth decay and certain cancers.

Create a dialogue around the following topic:

The South African Department of Health recognised the need to teach people how to eat in a healthy way to prevent chronic diseases. The Department then asked experts to create a set of Food-Based Dietary Guidelines to help people eat in order to stay healthy. The aim of the guidelines is to encourage people to meet their nutritional requirements and to stay healthy to prevent disease.

Grade 5 | Lesson 1 | Time: 40 min

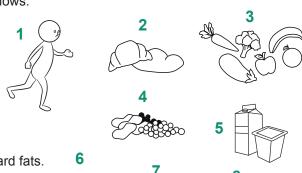
The South African Food-Based Dietary Guidelines are as follows:

- 1. Enjoy a variety of foods.
- 2. Be active!
- 3. Make starchy foods part of most meals.
- 4. Eat plenty of vegetables and fruit every day.
- 5. Eat dry beans, split peas, lentils and soya regularly.
- 6. Have milk, maas or yoghurt every day.
- 7. Fish, chicken, lean meat or eggs may be eaten daily.
- 8. Drink lots of clean, safe water.
- 9. Use fats sparingly. Choose vegetable oils, rather than hard fats.
- 10. Use sugar, and foods and drinks high in sugar, sparingly.
- 11. Use salt and food high in salt sparingly.

Hand out Worksheet 5.1.1.

This worksheet provides the learners with a list of the guidelines. The aim is for learners to tick off which guidelines they currently follow and which guidelines they can improve on.

<u>Teacher's Top Tip:</u> As you go through each guideline, provide practical examples of how these guidelines can be applied at home.





Change my day

Main part Time: ~ 8 min

How to execute

Direct the learners to complete Worksheet 5.1.2.

This aim of this worksheet is for the learners to apply knowledge and make suggestions on how a diet may be changed based on the guidelines. The learners are required to suggest alternative meals and indicate which guideline they applied

<u>Teacher's Top Tip:</u> Once the learners have completed the activity, encourage them to share their suggestions. It is important to create a non-judgmental atmosphere. Try to refer to foods as healthy (everyday) or unhealthy (sometimes) foods, as opposed to bad or junk food.

Josh and Ellie's picnic adventure

Main part Time: ~ 10 min

How to play

Read the story: Josh and Ellie's Picnic Adventure (http://magicfrogtales.com/5-free-short-stories-eat-healthy-be-healthy-and-smile/#1)

Create a dialogue around the following topics: Do you think having a picnic is a good idea? Are there any guidelines that you could apply to ensure the picnic is not only fun but also healthy?

Being outdoors is great fun, especially as it presents a great opportunity to get active and play games. Do you think the picnic items that Mrs. Brown packed were healthy? What type of foods would you pack? Sometimes playing outside makes us thirsty. What are some of the beverages (drinks) you could take along?

Summary

Wrap up Time: ~ 2 min

Ask the learners what they have learnt today. Ask them questions about some of the key topics that were covered. Encourage the learners to think of practical ways in which they can apply the guidelines at home.

Tick the relevant box:			
Guideline	I do this everyday	I do this sometimes	I never do this
Enjoy a variety of foods.			
Be active!			
Make starchy foods part of most meals.			
Eat plenty of vegetables and fruit every day.			
Eat dry beans, split peas, lentils and soya regularly.			
Have milk, maas or yoghurt every day.			
Fish, chicken, lean meat or eggs may be eaten daily.			
Drink lots of clean, safe water.			
Use fats sparingly. Choose vegetable oils, rather than hard fats.			
Use sugar, and foods and drinks high in sugar, sparingly.			
Use salt, and food high in salt, sparingly.			

Name:	Date:	Class:
	hat you are learning about the South African Food-Base ou have learned. Write down your suggested improvemer	
Amy's current diet	Your suggested improvements	Guideline that you referred to:
Breakfast: SUPET CTUNCH Orange juice Lunch: Snack:		
(Comment of the comm		
Evening meal:		
Snack:		



SOUTH AFRICAN FOOD-BASED TETARY GUIDELINES

I. Enjoy a variety of foods.

2. Be active!

3. Make starchy food part of most meals.

4. Eat plenty of vegetables and fruit every day.

5. Eat dry beans, split peas, lentils and soya regularly.

6. Have milk, maas or yoghurt every day.

7. Fish, chicken, lean meat or eggs may be eaten daily.

8. Drink lots of clean, safe water.

9. Use fats sparingly. Choose vegetable oils, rather than hard fats.

10. Use sugar, amd foods and drinks high in sugar, sparingly.

II. Use salt, and food high in salt, sparingly.



Grade 5 | Lesson 2 | Time: 40 min



Materials

- Nutrients in Food 1 Poster Cardboard
- Board and Board Markers •
- Handout 5.2.1.
- Magazines (food magazines if possible)
- Scissors

- Glue
- Worksheet 5.2.1.
- Pencils or cravons

Aim

- To define the terms 'nutrition' and 'nutrients'
- To become familiar with the major nutrients in food and their functions
- To provide examples of foods high in specific nutrients

Introduction

Introduction Time: ~ 3 min

Welcome the learners, introduce the day's topic and outline the planned lesson

Link with the previous lesson:

Ask the learners if anyone was able to make any changes to their diet, based on the South African Food Based Dietary Guidelines. Share ideas around this topic. If no one responds, reinforce a few practical suggestions that can easily be followed (drink plenty of clean water, be active, use less sugar in porridge/cereal or salt on food etc.)

Group Discussion

Main part Time: ~ 10 min

Ask the learners: 'Why do we eat?' 'Where does our body get energy from?' 'What do you think our body uses the energy from food for?'

Possible answers:

- Just as a car requires fuel to work, or a power station requires coal to produce energy, so our body needs energy to function.
- Our body gets energy from the food that we eat. When we eat food, our body breaks down the food into usable energy.
- Everything our body does (from breathing to our heart beating, or even sitting upright and learning) requires energy.



Teacher's Top Tip: Ask the learners to wave their arms in the air. Then ask them whether they think that required energy or not. Explain to the learners that certain activities require more energy than others.

Ask the learners: 'Other than providing us with energy, what else does food do for our bodies?' 'What are nutrients?' 'Why are nutrients important?' 'What is nutrition?'

- Nutrients are found in food and are important for good health. The body cannot make its own nutrients, so they must be provided by the food we eat.
- There are many types of nutrients in the food we eat. However, there is no single food that provides us with all the nutrients our body requires. For example, roast chicken has a very different nutrient content to
- Nutrients are the parts of food that provide us with energy, and help our bodies to grow and stay healthy.
- It is important to eat a variety of nutritious (healthy) foods, so that our bodies can get all the nutrients they need to stay healthy.
- Unhealthy foods do not provide the proper nutrients for our bodies to stay strong and grow. We call these foods non-nutritious foods, as they do not contain enough nutrients to keep us healthy.
- Eating in a nutritious way is the act of providing or receiving food necessary for growth and health.

Write the words 'nutrients' and 'nutritious' on the board.

Distribute Handout 5.2.1. to the learners. This handout briefly describes the major nutrients that are found in food. Briefly go through each nutrient with the learners.

Grade 5 | Lesson 2 | Time: 40 min

Nutrients found in food

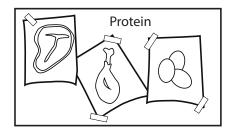
Main part Time: ~ 15 min

How to execute

Divide the learners into five groups.

Give each group the name of a nutrient found in food (as per the handout). The groups should search for pictures of foods that are good sources of their particular nutrient. For example, the 'protein' group could find pictures of meat, chicken, fish, eggs etc. These pictures should be stuck onto a large piece of paper or cardboard to make a poster. Once the groups are finished, they can present their posters to the class.





Match the food

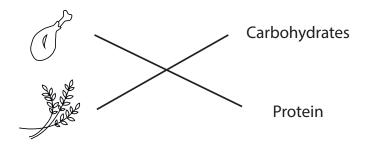
Main part Time: ~ 10 min

How to complete

Direct the learners to complete Worksheet 5.2.1.

In this activity, the learners match a food with the major nutrient.

<u>Teacher's Top Tip:</u> Explain to the learners that we should try to enjoy a variety of foods at each meal. In this way we will have balanced meals that provide our bodies with a range of nutrients for good health.



Summary

Wrap up Time: ~ 2 min

Ask the learners what they have learnt today. Try to create an open dialogue with the them and encourage the learners to ask questions about nutrition and healthy foods.

Remind the learners why they should choose healthy foods, and the importance of good nutrition.

Try to end the session by motivating the learners to make healthy food choices at home.

Grade 5 | Lesson 2 | Nutrition



Foods are made up of nutrients which are needed to help us grow, be active and stay healthy. We need to eat a variety of foods to stay healthy. There are five main (major) nutrients found in foods.

1. Carbohydrates (starchy foods)

Foods high in carbohydrates give us a ready-to-use source of energy. Whole-grains (unrefined starchy foods) such as brown rice, whole-wheat bread and cereals, and sweet potatoes are better than refined starchy foods such as white rice and white bread.

2. Proteins

Proteins are the building-blocks of our body. They are important for growth and repair (healing). Proteins keep our muscles, blood, nerves and bones strong. Meat, fish, chicken, eggs, cheese, beans and lentils are all great sources of protein. We should try to eat a protein-containing food at each meal.

3. Fats

Fats are a dense source of energy. This means a small amount of fat provides a large amount of energy. Fat also carries certain vitamins throughout the body. Remember, because fats are so energy dense, a little goes a long way! Some fats are healthier than other fats. Avocados, olive oil and canola oil, nuts and seeds are good sources of healthy fats.

4. Vitamins and minerals

Vitamins help the body grow and stay healthy. Vitamins are also important for a healthy immune system (to protect us from disease), healthy skin, eyes and hair. Minerals help our body function as it should. Minerals are important for healthy blood, bones and teeth. Minerals also help our muscles to work properly. Fruit and vegetables are very high in vitamin and mineral content. We should try to eat at least five different kinds of fruits and vegetables per day.

5. Fibre and water

Fibre helps us digest the food we eat. Fibre is also important for a healthy digestive system and it prevents constipation. Great sources of fibre are whole-grain foods such as whole-wheat bread and bread rolls, brown rice and bran cereal. Fruit and vegetables are also good sources of fibre. Water is very important for good health. We should aim to drink at least six glasses of clean water every day.

Chicken

First and last name:			
Date:			
Class:			
	Draw a line to match e	each food	with the relevant box:
FOOD GROUPS			VHAT THE FOOD GIVES OUR BODIES
Bread			This food is high in vitamins and minerals. Vitamins and minerals keep the body healthy and functioning properly. You should aim to eat at least 5 of these types of food per day.
HEALTHY START Bran cereal			This food contains healthy fats. Fats are a source of concentrated energy. Fats also play an important role in the absorption of certain vitamins.
Spinach			This food is a great source of protein. Protein foods are important as proteins are important for growth and healing.
Avocado			This food is a source of ready-to- use energy. Whole-grains are a great source of fibre and packed full of nutrients.
			This food is a great source of fibre. Fibre helps keep the digestive system healthy and regular. Fibre also helps to keep our hearts healthy.

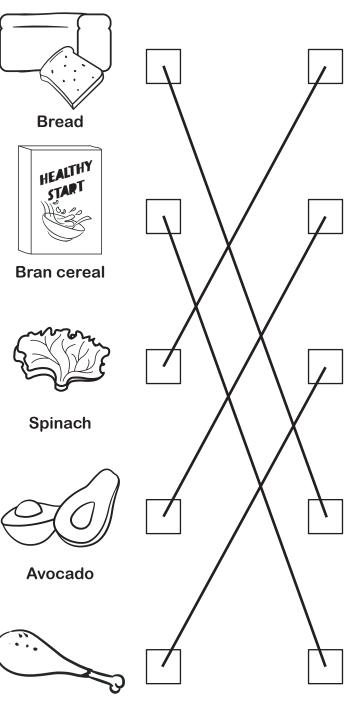


Draw a line to match each food with the relevant box:

FOOD GROUPS

Chicken

WHAT THE FOOD GIVES OUR BODIES



This food is high in vitamins and minerals. Vitamins and minerals keep the body healthy and functioning properly. You should aim to eat at least 5 of these types of food per day.

This food contains healthy fats. Fats are a source of concentrated energy. Fats also play an important role in the absorption of certain vitamins.

This food is a great source of protein. Protein foods are important as proteins are important for growth and healing.

This food is a source of ready-touse energy. Whole-grains are a great source of fibre and packed full of nutrients.

This food is a great source of fibre. Fibre helps keep the digestive system healthy and regular. Fibre also helps to keep our hearts healthy.



NITRIENTS IN FOOD

Vitamins & minerals:

Vitamins help the body grow and stay healthy. Vitamins are also important for a healthy immune system. Minerals helps our body function as it should.

Minerals are important for healthy blood, bones and teeth. Fruit and vegetables are very high in vitamins and minerals.

Carbohydrates:

Foods high in carbohydrates give us a ready-to-use source of energy. Whole-grains (unrefined starchy foods) such as brown rice, whole-wheat bread and cereals, and sweet potatoes are better than refined starch foods such as white rice and bread.



Fibre:

Fibre helps us digest the food we eat. Fibre is also important for a healthy digestive system and prevents constipation.

Sources of fibre are whole-grain foods such as whole-wheat bread and bread rolls, brown rice and bran cereal. Fruit and vegetables are also a great source of fibre.

Proteins:

Proteins are the building blocks of our body. They are important for growth and repair (healing). Proteins keep our muscles, blood, nerves and bones strong. Meat, fish, chicken, eggs, cheese, beans and lentils are all great sources of protein.

Try to eat a proteincontaining food at each meal.

Fats:

Fats are a dense source of energy. This means a small amount of fat provides a large amount of energy. Fat also carries some vitamins throughout the body. Some fats are healthier than other fats. Avocados, olive and canola oil and nuts and seeds are good sources of healthy fats.

Grade 5 | Lesson 3 | Time: 40 min



Nutrients in food continued

Nutrition: Intermediate phase

Materials

- Nutrition in Food 2 Poster
- Board and Board Markers
- Handout 5.3.1.

- Worksheet 5.3.1.
- · Crayons or Pencils

Aim

- Recap on the previous lesson.
- Recap on the concept of 'everyday foods' and 'sometimes foods'.
- Understand the term 'micro-nutrient'.
- Become familiar with some of vitamins and minerals and their functions.
- Identify food sources of some of the vitamins and minerals.

Introduction

Introduction Time: ~ 3 min

Welcome the learners, introduce the day's topic and outline the planned lesson.

Link with the previous lesson:

Create a dialogue around the previous lessons. Recap on concepts from the previous lesson such as nutrients, nutrition, carbohydrates, proteins and fats. Remind the learners that foods are made up of nutrients that our bodies need to stay healthy and to function properly.

Group Discussion

Main part Time: ~ 10 min

Ask the learners:

During the previous lesson, we learned about nutrients called vitamins and minerals.

'Can anyone remember the function of vitamins and minerals?'

'And some of the foods that are a good source of vitamins and minerals?'

'Has anyone heard of the word 'micro-nutrients' before?'

Possible answers:

- Vitamins help the body grow and stay healthy. Vitamins are also important for a healthy immune system (to protect us from disease), healthy skin, eyes and hair.
- Minerals help our bodies function as they should. Minerals are important for healthy blood, bones and teeth.
- Fruit and vegetables are very high in vitamins and minerals.
- Vitamins and minerals are called micro-nutrients. They are called this, as we only need small amounts of these to stay healthy.

<u>Teacher's Top Tip:</u> Write the word 'micro-nutrients' on the board. Explain that 'micro' means very small. We call vitamins and minerals 'micro-nutrients' as we only need a very small amount of them at a time. However, foods only contain a trace amount of micro-nutrients. Therefore, we still need to eat a large variety of different foods to make sure we get all the micro-nutrients we need.

Ask the learners: 'Why are some foods healthier than others?'

'Why should we eat healthier foods often?'

'What do you think will happen if we replace healthy foods with unhealthy foods?' 'Will this have an impact on our health?'



Grade 5 | Lesson 3 | Time: 40 min

- Healthy foods contain important nutrients that are essential to keep our bodies healthy and functioning well. If we do not get enough nutrients from the food we eat, we could become ill.
- We need to choose healthier foods as often as possible (therefore we call healthy foods 'everyday foods') to ensure we stay healthy.
- Unhealthy foods are usually high in sugar, salt and/or unhealthy fats. Unhealthy foods are also often very low in nutrients.
- If we replace healthy foods with unhealthy foods too often, our bodies will not get the nutrients they need. We should try to eat unhealthy foods less often (therefore we call these foods 'sometimes foods').

Write the terms 'everyday (healthy) foods' and 'sometimes (unhealthy) foods' on the board.

<u>Teacher's Top Tip:</u> Provide examples of healthy and unhealthy foods as the discussion progresses. Avoid labelling food as good or bad, rather re-iterate that we have 'everyday' healthy foods and 'sometimes' unhealthy foods. Also, avoid referring to high sugar or high fat foods, e.g. chocolates/sweets/ice-cream etc., as treats or reward foods.

Today we are going to explore vitamins and minerals even further. We are going to learn about some of the specific vitamins and minerals found in different foods and what their functions are.

Distribute Handout 5.3.1. to the learners. Explain that there are 13 vitamins and minerals in total, and that you are only going to go through a few of them today.

Match the micro-nutrient

Main part Time: ~ 5 min

How to execute

Direct the learners to complete Worksheet 5.3.1.

In this worksheet, the learners match the vitamin or mineral with its key functions.

Micro-nutrient charades

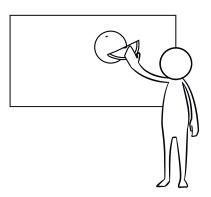
Main part Time: ~ 20 min

How to play

Divide the learners into groups. Give each group a card with the name of a vitamin or mineral on it. The groups must come up with a play, or skit or picture (that they can draw on the board) to describe their nutrient (without giving its name). The rest of the learners must guess which nutrient it is.

<u>Teacher's Top Tip:</u> Rearrange the classroom as needed. Remind the teams not to say the name of their micro-nutrient out loud, or write it on the board. They are not allowed to use **words** to describe their micro-nutrient at all.





Summary

Wrap up Time: ~ 2 min

Emphasise to the class that to stay healthy, they need to eat a variety of healthy foods every day. If you have time, you can create a dialogue around some practical ways the learners can do this at home.



VITAMINS

Vitamin A

Keeps the immune system strong. Important for eyesight, especially at night. Also keeps the skin and membranes healthy.

Food sources: red meat and liver; dark green and deep yellow vegetables such as spinach and butternut.

Vitamin B12

Helps with the formation of blood cells and keeps nerve and digestive cells healthy. Food sources: liver, red meat, fish, seafood, eggs, chicken, milk and milk products.

Vitamin C

Keeps your teeth and gums healthy. Also, important for keeping the immune system strong.

Food sources: vegetables and fruits such as oranges, strawberries, broccoli, kiwi fruit, mangos and sweet potato.

Vitamin D

Important for strong bones and healthy teeth.

Food sources: organ meat, salmon and tuna canned with the bones; margarines fortified with vitamin D. **Other sources:** exposure to sunlight causes the skin to produce vitamin D in the body.

Folic Acid

Helps with the development of blood cells.

Food sources: liver, lentils and beans, fortified breads, pasta, rice, vegetables and citrus fruits.

MINERALS

Calcium

Helps with the development and maintenance of bones and teeth. Also, important for heart health. **Food sources:** milk, yoghurt, amasi, cheese and green leafy vegetables

Phosphorus

Helps build strong bones and teeth.

Food sources: meat, chicken, fish, eggs, lentils, nuts, milk, amasi, yoghurt and cheese.

Iron

Important for healthy blood (aids in the circulation of oxygen in the blood).

Food sources: red meat, organ meat, lentils and beans, cereals, dried fruits and leafy green vegetables.

Zinc

Essential for the healing of wounds, blood formation and growth.

Food sources: organ meat, beef, pork, chicken, lentils and beans, nuts, soya and whole-wheat bread.

Grade 5 | Lesson 3 | Nutrition



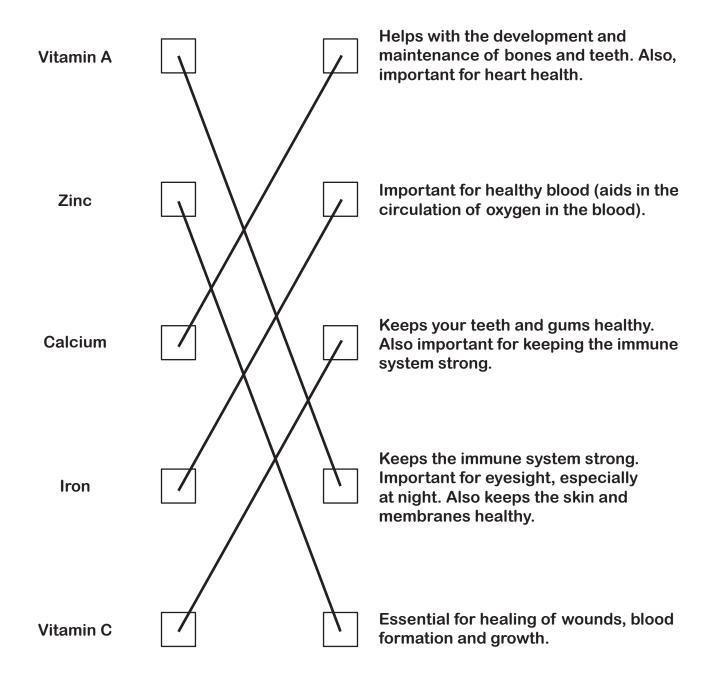
First and last name:			
Date:			
Class:			
			nineral with the relevant box.
MICRONUTRIEN	11	V	WHAT THE FOOD GIVES OUR BODIES
Vitamin A			Helps with the development and maintenance of bones and teeth. Also, important for heart health.
Zinc			Important for healthy blood (aids in the circulation of oxygen in the blood).
Calcium			Keeps your teeth and gums healthy. Also important for keeping the immune system strong.
Iron			Keeps the immune system strong. Important for eyesight, especially at night. Also keeps the skin and membranes healthy.
Vitamin C			Essential for healing of wounds, blood formation and growth.



Draw a line to match each vitamin or mineral with the relevant box.

MICRONUTRIENT

WHAT THE FOOD GIVES OUR BODIES





NICRONUTRIENTS NITAMINS & MINERALS

Vitamin A:

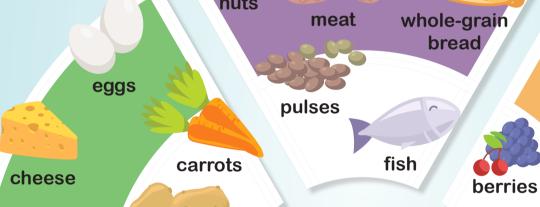
Keeps the immune system strong. Important for eyesight, especially at night. Also keeps the skin and membranes healthy.

Vitamin Bl2:

Helps with the formation of blood cells and keeps nerve and digestive cells healthy

Vitamin C:

Keeps your teeth and gums healthy. Also important for keeping the immune system strong.



VITAMINS AND MINERALS peppers spinach tomatoes

broccoli



eggs

fish

sweet

potatoes

nuts green vegetables red meat

pulses

Vitamin D:

Important for strong bones and healthy teeth.

Calcium:

cheese

sardines

nuts

milk

spinach

Helps with the development and maintenance of bones and teeth. Also important for heart health.

Iron:

Important for healthy blood (aids in the transport of oxygen in the blood).



Assessment: Nutrition

First and last name:		
Date:		
Class:		
List any 3 nutrients f	ound in food.	
		(3 marks)
Some of the South A words to complete th	frican Food-Based Dietary Guidelines are listed belowne sentence.	v. Fill in the missing
1. Eat plenty of	and fruit every day.	
2. Drink lots of clear	n, safe	
3. Have	, maas or yoghurt every day.	
4. Use	and foods and drinks high in	sparingly.
5. Make	foods part of most meals.	
		(5 marks)



Assessment: Nutrition

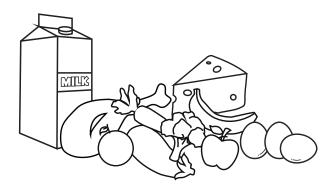
1								
2								
3								
								(3 marks
4. Write down	three examples	s of 'every	rday foods	s' and thre	ee examp	es of 'sor	netimes	,
4. Write down Everyday	three examples	_	-		ee examp			foods'.
	1.				_			foods'.
Everyday	1.							foods'.
Everyday foods	1. 2. 3.							foods'.
Everyday	1. 2. 3.							foods'.
Everyday foods Sometimes	1. 2. 3. 1. 2.							foods'.
Everyday foods Sometimes	1. 2. 3. 1. 2.							foods'.
Everyday foods Sometimes foods 5. Discuss the	1. 2. 3. importance of							foods' (6 marks
Everyday foods Sometimes foods	1. 2. 3. importance of ark).	fibre in ou	ır diet (2 r	narks) an	d give an	example	of a food	foods'. (6 marks
Everyday foods Sometimes foods 5. Discuss the in fibre (1 m	1. 2. 3. importance of	fibre in ou	ır diet (2 r	narks) an	d give an	example	of a food	foods'. (6 marks
Everyday foods Sometimes foods 5. Discuss the in fibre (1 m	1. 2. 3. importance of ark).	fibre in ou	ır diet (2 r	narks) an	d give an	example	of a food	foods'. (6 marks



Assessment Memo: Nutrition

1. List any 3 nutrients found in food.

Any suitable nutrients – carbohydrates, protein, fats, vitamins, minerals, fiber, water etc.



(3 marks)

- 2. Some of the South African Food-Based Dietary Guidelines are listed below. Fill in the missing words to complete the sentence.
 - 1. Eat plenty of <u>vegetables</u> and fruit every day.
 - 2. Drink lots of clean, safe water.
 - 3. Have milk, maas or yoghurt every day.
 - 4. Use sugar and foods and drinks high in sugar sparingly.
 - 5. Make starchy foods part of most meals.

(5 marks)

3. Name any 3 nutrients found in food and discuss the role each nutrient has in our body.

Refer to Lesson Plan 2, Handout 5.2.1. - The Nutrients Found in Food

(3 marks)

4. Write down three examples of 'everyday foods' and three examples of 'sometimes foods'.

Everyday foods

Any suitable food e.g. milk, yoghurt, porridge, fruit and vegetables,

meat, chicken and fish etc.

Sometimes foods

Any suitable foods e.g. chocolate, sweets, chips, lollipops, vetkoek,

sugary drinks, doughnuts, take-aways etc.

(6 marks)

Grade 5 | Evaluation sheet memo | Nutrition



Assessment Memo: Nutrition

5. Discuss the importance of fibre in our diet (2 marks) and give an example of a food that is high in fibre (1 mark).

Fibre helps us digest the food we eat. Fibre is also important for a healthy digestive system and prevents constipation.

Other suitable answers could include – keeps us fuller for longer, helps maintain a healthy weight, good for the heart, prevents certain types of cancers etc.

Example of a food high in fibre: Great sources of fibre are whole-grain foods such as whole-wheat bread and bread rolls, brown rice and bran cereal. Fruit and vegetables are also a great source of fibre.

GOOD LUCK

