



KaziBantu

Healthy Schools for Healthy Communities

GRADE 3

KAZIKIDZ TEACHING MATERIAL

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 **NOVARTIS**

The Novartis
Foundation

LESSON PLANS FOR

Grade

3



**Health & Hygiene
and Nutrition**



**Physical
Education**



**Moving to
Music**



KaziKidz

Teaching Material for Schoolchildren

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INSTRUCTIONS FOR HEALTH-AND-HYGIENE AND NUTRITION CONTENT PILLAR

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.



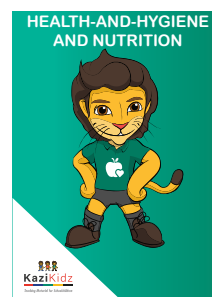
The general wellbeing of primary schoolchildren from poor neighbourhoods may also be affected by lack of nutritional value, since schoolchildren usually eat food served by tuck shops and vendors during school hours. The South African National School Nutrition Programme (NSNP) attempts to address energy, 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



	Foundation Phase	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
	Intermediate Phase	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	Health and hygiene lessons: 3 Nutrition lessons: 3 Assessments incl. solutions: 2

HEALTH-AND-HYGIENE AND NUTRITION



KaziKidz

Teaching Material for Schoolchildren



Toothbrushing

Health-and-hygiene: Foundation phase

Materials

- 'Our teeth' sheet.
- Poster.
- Happy smile calendar.

Aim

- Increase knowledge about teeth.
 - Tooth table.
 - Different types and their function.
- Importance of having teeth.
- How to take care of your teeth and prevent cavities.
- Demonstration - tooth brushing.

Introduction

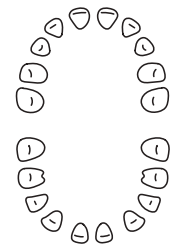
Introduction
Time: ~ 10 min

Introduce the daily topic: our teeth and gums.

Tell the learners about the primary teeth (milk teeth > children) and the permanent teeth (adult teeth). If you have got all the teeth as a child, you have a total amount of 20 teeth. As you grow older, you get more teeth. As a grown-up, you get a total number of 28/32 teeth.

Ask the learners how many teeth they have in their mouths? Allow the learners to work in pairs and let them see in each other's mouth to count the teeth.

Fill out the tooth table. (Sheet 'our teeth')



Milk teeth

Activity 1

Main part
Time: ~ 15 min

How to conduct

Now, have a second look in your friend's mouth. Do the teeth look similar to each other or are there any differences? Let them guess how many types of teeth they actually have.

Explain that learners have 3 different types of teeth:

- Incisors (at the front)
- Canines (next to Incisors)
- Premolars (next to canines)

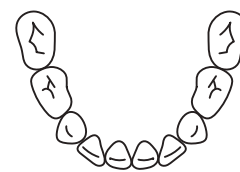
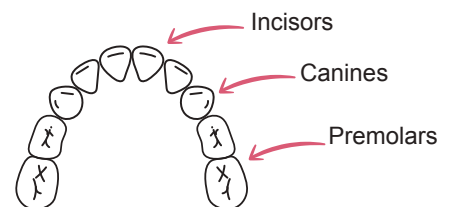
Now ask them and let them count how many teeth of each sort they have:

- Incisors (4 in upper jaw, 4 in lower jaw)
- Canines (2 in upper jaw, 2 in lower jaw)
- Premolars (4 in upper jaw, 4 in lower jaw)

Ask the learners about the different functions:

- Incisors (cut and bite food into pieces)
- Canines (pull and rip the food)
- Premolars (chews and grinds food)

Allow the learners to colour in the different types of teeth ('our teeth' sheet).



Permanent teeth

Activity 1

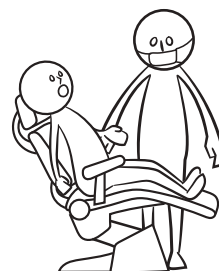
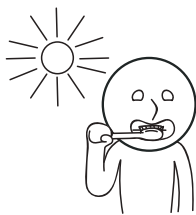
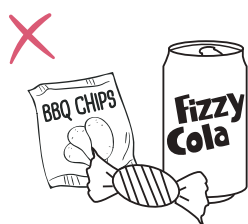
Continued

Importance of having teeth

- For eating - to help you bite and chew so that you can swallow the food.
- For talking - to talk clearly (hide your teeth with your lips and try to talk).
- For your appearance - e.g. to smile.

How to take care of your teeth and prevent cavities.

- Avoid too much sugar - sugar is very bad for your teeth.
- Clean your teeth twice a day:
 - Every morning.
 - Every evening before going to bed.
- Do not drink anything after brushing your teeth, only water.
- Visit your dentist regularly.



How to brush our teeth properly

Main part
Time: ~ 10 min

How to conduct

Show the poster with the guidance on HOW to brush your teeth. Go through the different steps with the learners.

Summary

Wrap up
Time: ~ 5 min

Repeat what you have learnt today. Ask the learners questions about the number of primary teeth, the different types and their functions. Repeat the importance of having teeth, how to take care of and how to brush the teeth properly.

Tell the learners that the next time they eat something, they should try to concentrate on HOW they do it. Focus on where they bite and where they chew?

Furthermore, they should concentrate on the HOW to brush their teeth the proper way.

Notes: Hand out the 'happy smile calendar'. Tell the learners that they are always welcome to get a new one for the next month.



Our teeth

Worksheet

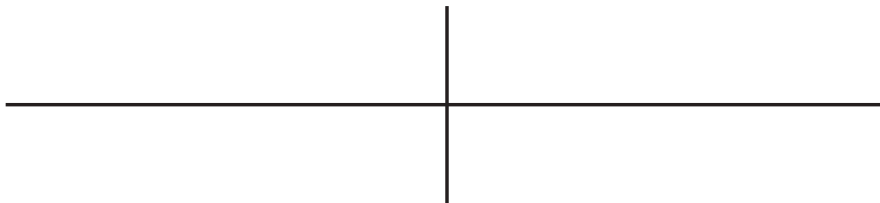
Name: _____

Date: _____ Class: _____

1. Tooth table

How many do I have? Fill in the tooth table.

Upper jaw



Lower jaw

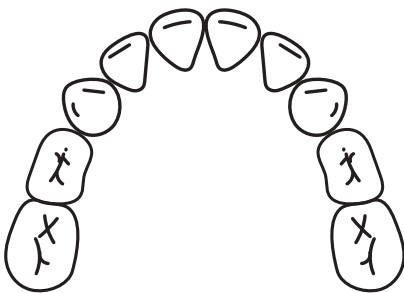
2. Colour the different teeth

Incisor: red

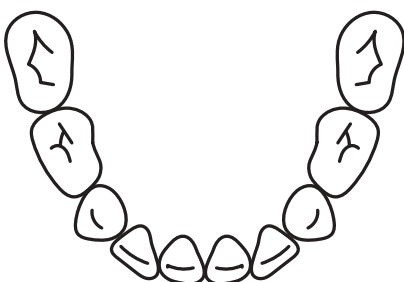
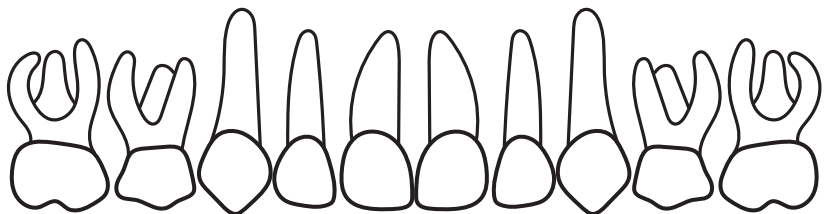
Canine: yellow

Premolars: blue

Upper jaw



Upper jaw



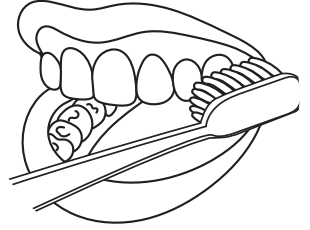
Lower jaw

Lower jaw



Happy Smile Calendar

of



	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
☀							
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HOW TO BRUSH YOUR TEETH



Brush the outside surfaces of all the **UPPER** teeth in a small, circular, jiggling motion.



Brush the outside surfaces of all the **LOWER** teeth in a small, circular, jiggling motion.



Use a small back and forth motion to brush the inside surfaces of the upper and lower **BACK** teeth.



Use a small back and forth motion to brush the inside surfaces of the upper and lower **FRONT** teeth.



Brush the biting surfaces of the upper and lower back teeth using a back and forth motion.



Don't forget to brush the tongue!



Importance of keeping the environment clean and safe

Health-and-hygiene: Foundation phase

Materials

- River drawing for colouring.
- 'My waste disposal' sheet
- 'River A' and 'River B' drawings

Aim

- Why is a clean environment important?
- How to keep it clean?

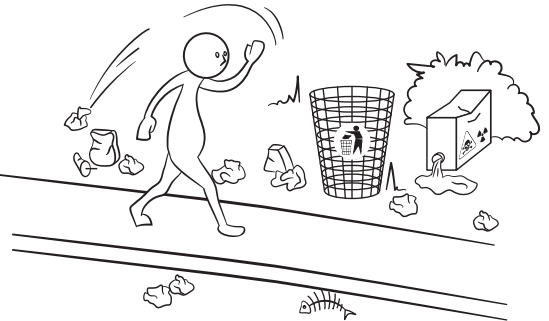
Introduction

Introduction
Time: ~ 5 min

Introduce the learners to the daily topic: a clean environment. Ask the learners why they think that a clean environment is so important?

In class, discuss the following points:

Keeping the environment clean is our responsibility. There is only one earth on which all the people, plants and animals have to live. A dirty environment can make you feel sick. A lot of people throw their litter on the roads and the litter builds up within a short time. As a result of all the litter and garbage, diseases can grow and infect you. A clean environment is normally a healthy environment. As a result of these facts, it is necessary to keep it clean. You are responsible for it; make a change and do not litter.



Activity 1

Main part
Time: ~ 15 min

How to discuss

Ask the learners what a clean environment is for them? Ask them if they think that they live in a clean environment? If yes, ask them why they think this way. If the answer is no, ask them why they think that way and ask what can be done to change it.

Instruct the learners to work in pairs. Give a sheet of River A and B to each pair. The learners can cut the sheet in the middle so that each learner has one drawing. Give the learners time to look at their drawing and instruct them to write a title for it.

1. Give the learners time to discuss the differences between River A and River B. After some time, discuss the following questions in class.
2. What happened with River B? Why are there no living animals and plants? Let the learners discuss this in pairs and then discuss it as a whole class.
3. What can we do so that River B will be clean again?
4. Let the learners write their solution in the speech bubble.
5. Give the learners time to colour the drawing (at the end of the lesson).

Environmental quiz

Main part
Time: ~ 10 min

How to conduct

Divide the class into 4 or 5 groups. Each group gets a colour or a name. The teacher must draw the competition structure on the blackboard. The teacher reads the question to the learners and gives them different options. Give the learners some time to write down the question in their textbook and let them discuss the question. After that, every group can share their answer. If the answer is correct, they go one step further.

Environmental quiz

Continued

Question 1:

How much of the world's water is available for human use?

- 50
- 25
- less than 1

Question 2:

Polluted water

- is unhealthy and can make you feel sick.
- does not influence your health.
- is not a problem if you wash yourself every day.

Question 3:

What does not contribute to environmental protection?

- Recycling
- Nuclear power station
- Compost heap

Question 4:

Climate change means:

- that the Earth warms up permanently.
- that there are 4 seasons every year.
- that the sunlight warms your body.

Question 5:

On the Earth, which are the coldest places?

- Poles
- Mountains
- Ocean

Question 6:

Which of these is not a renewable energy?

- Sunlight
- Wind
- Petrol

Question 7:

Which of the following will help you to save water?

- Leave the tap running whilst you brush your teeth.
- Have a quick shower.
- Flush the toilet multiple times.

Question 8:

Which of these vehicles of transport is the best for the environment?

- Car
- Taxi
- Bike

Question 9:

What is the most common type of natural disaster?

- Flood
- Volcano eruption
- Earthquake

Question 10:

What is the biggest threat to animal populations worldwide?

- Natural disasters
- Hunters
- Habitat loss

ENVIRONMENTAL QUIZ										
START										FINISH
●										
●										
●										
●										
●										

My waste disposal

Main part
Time: ~ 5 min

How to conduct

Give the 'my waste disposal sheet' to the learners or write the structure on the blackboard so that the learners can draw it in their textbooks. Give them some time to think about the last 3 things that they used which produced waste. The learners must then consider where they disposed these 3 items. Let them write it down. Instruct the learners to write down all the waste they produce in 1 day and where they dispose it.

Summary

Wrap up
Time: ~ 5 min

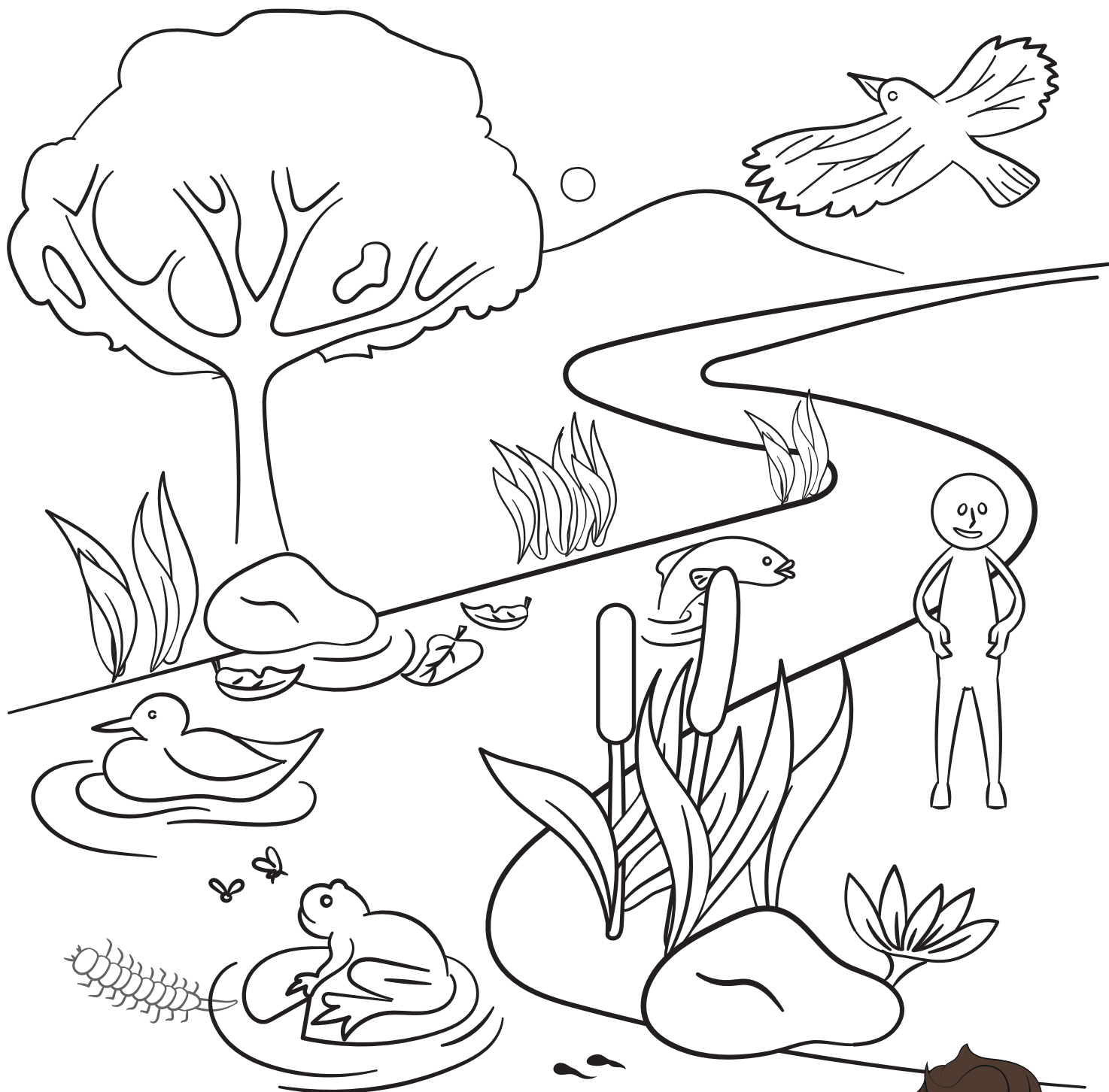
Repeat what you have learnt today.

Notes: At the end of the lesson, you can give the other half of the sheet (other river drawing) to each learner so they have both drawings. The learners can colour the other half at home.



River A

Name: _____



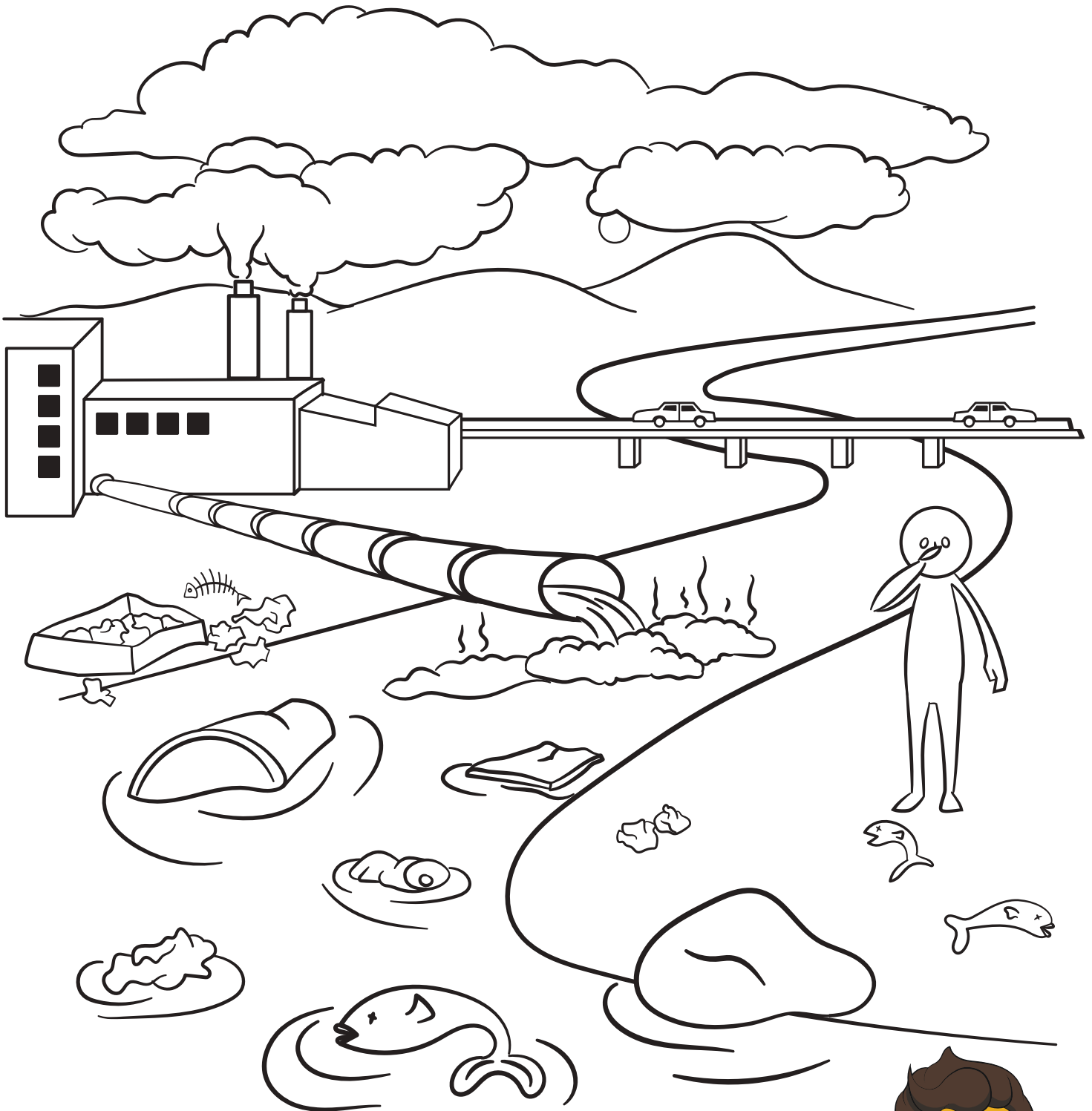
What can WE do to keep our environment clean?





River B

Name: _____



What can WE do against a pollution like this?





Importance of water – in our environment

Health-and-hygiene: Foundation phase

Materials

- No materials necessary.

Aim

- Create awareness of the importance of water in our environment.
- Different uses of water.
- Different forms of water.
- Knowledge about the water cycle.

Introduction

Introduction
Time: ~ 5 min

Introduce the daily topic: water. Ask the learners some questions about water to create a discussion. Let them write down the question in their textbooks.

1. Why is water important for the earth?
Plants, animals and humans need water to survive.
2. Can we drink all the water on earth?
No. You cannot drink the ocean's water because it is too salty.

Activity 1

Main part
Time: ~ 10 min

How to discuss

Uses of water

Divide the learners into pairs and ask them to think of as many uses of water they know. Give each learner some time to discuss with his/her partner. After that, let each pair share one of different uses with the class. The pairs should not repeat what has already been mentioned. Write all the mentioned uses on the blackboard. Add the most important ones if necessary.

- Drinking (human and animals)
- Cooking
- Washing body
- Washing clothes
- Irrigation of plants
- Farming
- Transport (boats)
- Produce power (water wheel)
- Swimming

Let the learners write down the list in their textbooks.

States of water

Ask the learners if they know what the different forms of water are. Explain them the different forms.

- Solid (Ice)
- Liquid (Water)
- Gas (Water vapour)

Ask them if they know at which temperature it will change the form?

- Under 0° > solid/frozen
- 0° - 100° > liquid
- Above 100° > gas



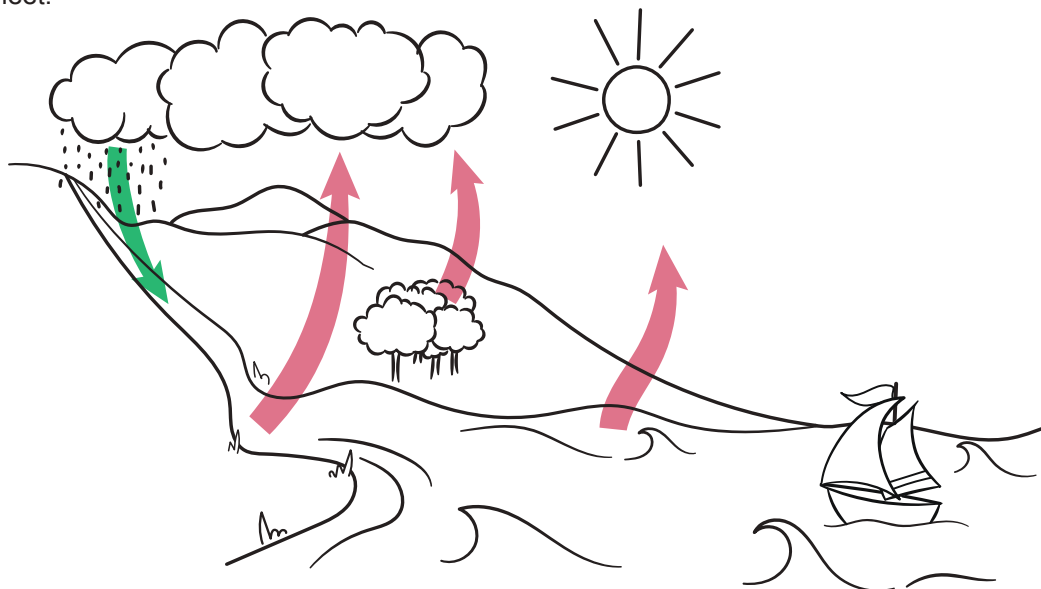
Activity 2

Main part
Time: ~ 20 min

How to discuss

The water cycle

Draw the water cycle and a big drop of water on the blackboard and let the learners draw it in their textbook or on a blank sheet.



Write the following words on the blackboard:

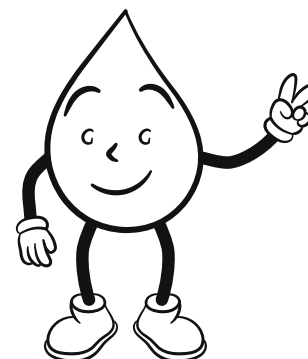
- Sun
- Clouds
- Land
- Ocean
- River
- Trees

Let the learners label the water cycle.

Use the drawing to explain to the learners how the water cycle works. Use the story of the raindrop 'Droppy'.

DROPPY and his way in the water cycle

Once upon a time there was a rain drop and his name was Droppy. One day, Droppy was swimming in the ocean and then the sun came out. He started to get hot and changed his form into water vapour. On the way up to the sky, Droppy enjoyed the beautiful view. In the sky, Droppy met a lot of his friends and together with them they created a cloud. But after some time, the temperature was too cold for Droppy and his friends. So, they changed their forms into water again. Because of this, they were too heavy and fell down from the sky as rain. Sometimes when the temperature is colder, they can fall down as snow. Droppy landed on earth and found his way into a river. The river brought him back to the ocean, where he starts his journey over again.



Now, let the learners draw the rain drop 'Droppy' as they want.

Summary

Wrap up
Time: ~ 5 min

Repeat of what you have learnt today.

Notes: If you have enough time at the end of the lesson, let the learners color the water cycle.



Assessment: Tooth brushing, keeping our environment clean and safe & importance of water

First and last name: _____

Date: _____

Class: _____

1. Choose the correct answer:

You should brush your teeth at least how many times a day?

- 2
- 5
- 10

Underline the foods that help keep your teeth healthy.

- Candy
- Carrots
- Coke

How many teeth does a child have in total?

- 10
- 15
- 20

You need your teeth for:

- Talking and eating
- Running and swimming
- Playing outside

(2 marks)

2. Connect the right type of teeth with their function.

Incisors

Pull and rip the food.

Canines

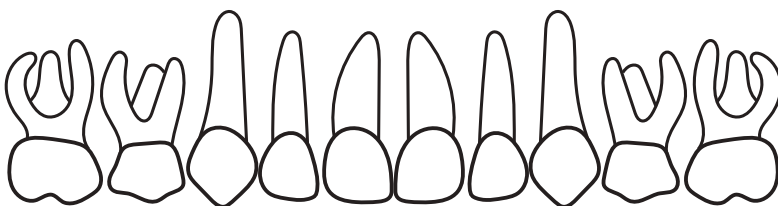
Chew and grind the food.

Premolars

Cut and bite the food.

(1.5 marks)

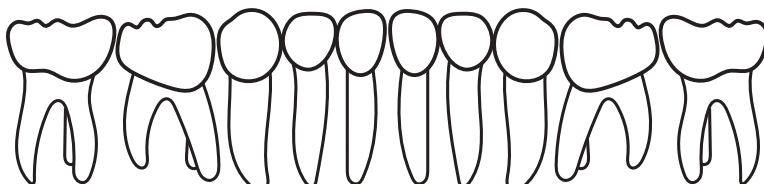
3. Colour the different types of teeth using different colours.



Incisors

Canines

Premolars



(3 marks)



Assessment: Tooth brushing, keeping our environment clean and safe & importance of water

4. Choose the correct answer:

How much of the world's water is available for human use?

- 50%
- 25%
- Less than 1%

Which of the following will help you save water?

- Have a quick shower
- Flush the toilet multiple times
- Leave the tap running while you brush your teeth

Which are the coldest places on the earth?

- Mountains
- Poles
- Ocean

Climate change means:

- that the sunlight warms your body
- that there are 4 seasons every year
- that the Earth warms up permanently

Which of these methods of transport is the best for the environment?

- Bicycle
- Car
- Taxi

Polluted water:

- does not influence your health
- is not a problem if you wash yourself everyday
- is unhealthy and can make you feel sick

(3 marks)

5. What can we do against environmental pollution? Write down 2 important points.

1. _____

2. _____

(2 marks)

6. Write down 4 different uses of water.

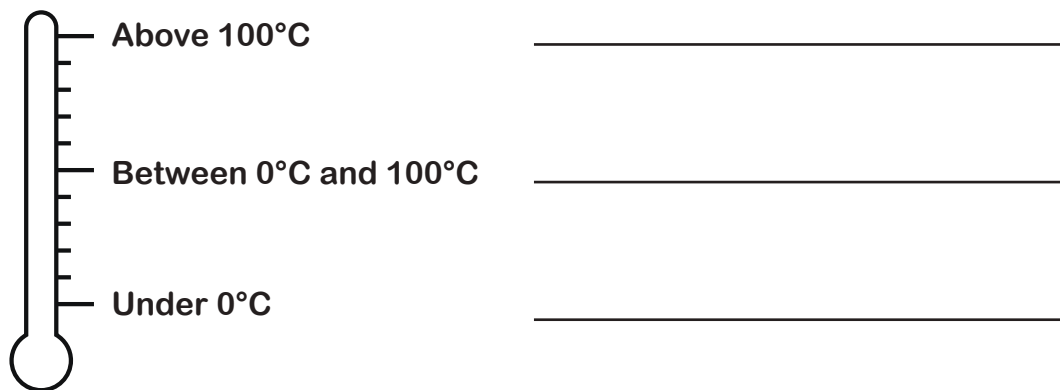
1. _____
2. _____
3. _____
4. _____

(2 marks)



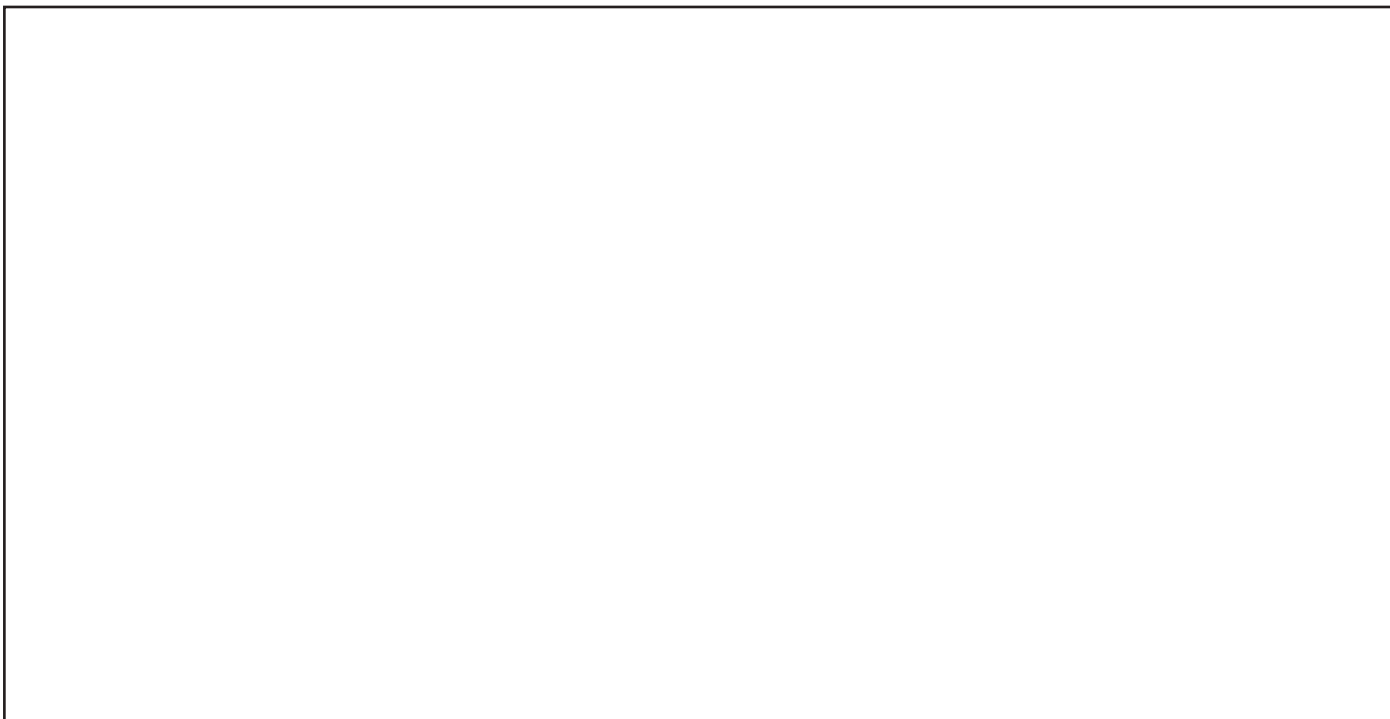
Assessment: Tooth brushing, keeping our environment clean and safe & importance of water

7. Write down the 3 different states of water in the correct position.



(3 marks)

8. Draw a simple Water Cycle with the correct arrows.



(3.5 marks)



Assessment Memo: Tooth brushing, keeping our environment clean and safe & importance of water

1. Choose the correct answer:

You should brush your teeth at least how many times a day?

- 2
- 5
- 10

Underline the foods that help keep your teeth healthy.

- Candy
- Carrots
- Coke

How many teeth does a child have in total?

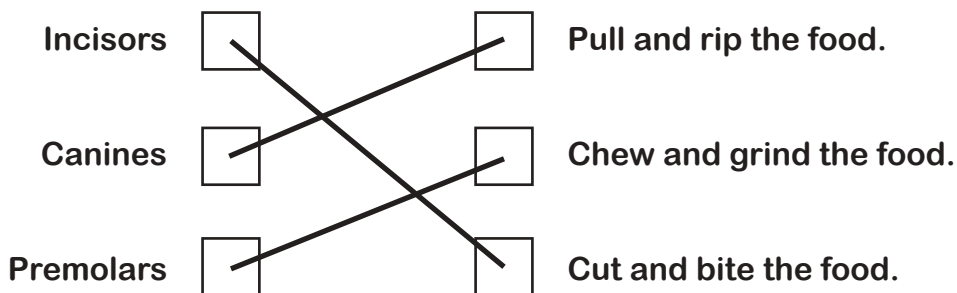
- 10
- 15
- 20

You need your teeth for:

- Talking and eating
- Running and swimming
- Playing outside

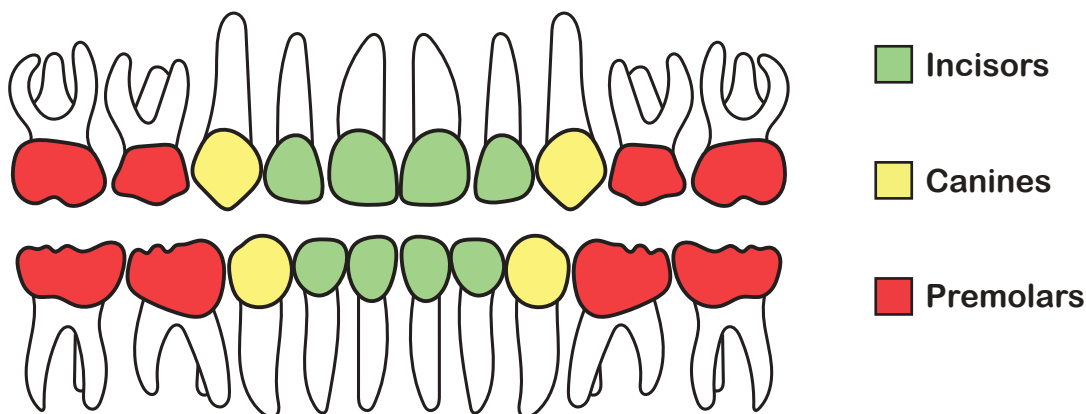
(2 marks)

2. Connect the right type of teeth with their function.



(1.5 marks)

3. Colour the different types of teeth using different colours.



(3 marks)



Assessment Memo: Tooth brushing, keeping our environment clean and safe & importance of water

4. Choose the correct answer:

How much of the world's water is available for human use?

- 50%
- 25%
- Less than 1%

Which of the following will help you save water?

- Have a quick shower
- Flush the toilet multiple times
- Leave the tap running while you brush your teeth

Which are the coldest places on the earth?

- Mountains
- Poles
- Ocean

Climate change means:

- that the sunlight warms your body
- that there are 4 seasons every year
- that the Earth warms up permanently

Which of these methods of transport is the best for the environment?

- Bicycle
- Car
- Taxi

Polluted water:

- does not influence your health
- is not a problem if you wash yourself everyday
- is unhealthy and can make you feel sick

(3 marks)

5. What can we do against environmental pollution? Write down 2 important points.

Give points for meaningful answers, including those mentioned in class like keeping our rivers clean, not throwing waste on the floor and so on.

(2 marks)

6. Write down 4 different uses of water.

Some examples:

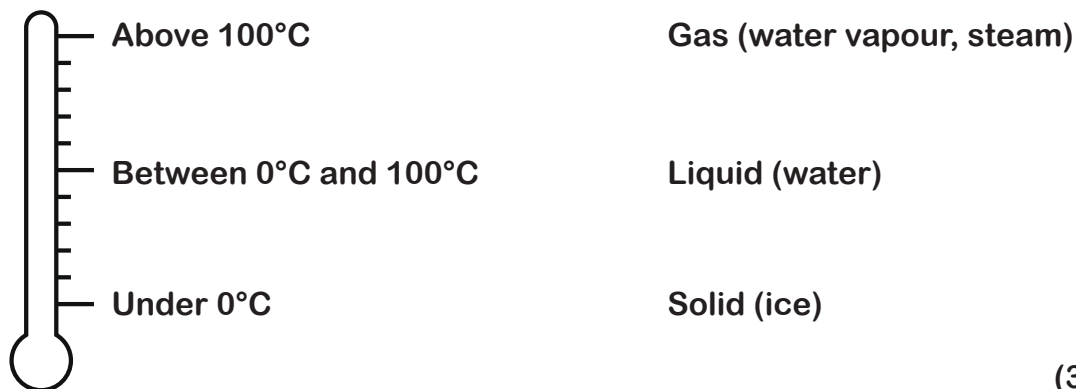
- Drinking (human and animals)
- Cooking
- Washing body
- Washing clothes
- Irrigation of plants
- Farming
- Transport (boats)
- Produce power (water wheel)
- Swimming

(2 marks)



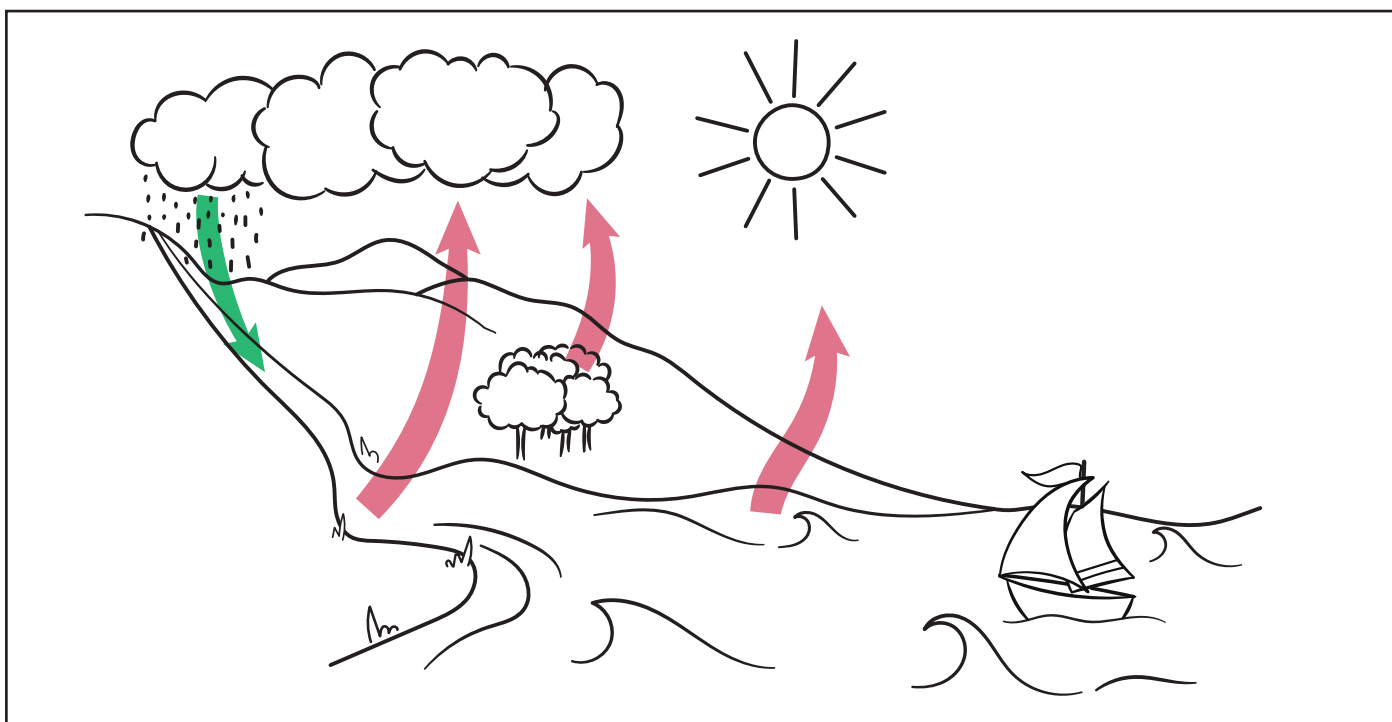
Assessment Memo: Tooth brushing, keeping our environment clean and safe & importance of water

7. Write down the 3 different states of water in the correct position.



(3 marks)

8. Draw a simple Water Cycle with the correct arrows.



(3.5 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



Healthy food choices

Nutrition: Foundation phase

Materials

- Healthy Food Choices Poster
- Chocolate or Packet of Sweets
- Apple
- Board and Board Markers
- Plates and Appropriate Utensils
- Food Samples (From each of the 5 Food Groups)
- Worksheet 3.1.1.
- Pencils or crayons

Aim

- Identify the 5 food groups and show the ability to classify foods according to the groups.
- Explain the difference between healthy and poor dietary patterns.
- Understand what nutrients are and the role they play on health.
- Understand the importance of eating a variety of foods to achieve a balanced diet.
- Be able to identify healthy and unhealthy foods.

Introduction

Introduction
Time: ~ 3 min

Welcome the learners; introduce the daily topic and summarise the planned lesson

Ice breaker

Hold up and show a chocolate/packet of sweets and an apple to the learners. Ask the learners which do they think is healthier and better for their bodies. Tie this in with the group discussion that follows.

Group discussion

Introduction
Time: ~ 10 min

Ask the learners: 'Why are some foods healthier than other foods? Which foods do you think you should choose more often – healthy or unhealthy foods and why?'

Possible answers:

- Healthy foods such as fruit and vegetables are full of nutrients which are good for our body and helps our bodies stay healthy and grow well.
- Nutrients are found in food and are important for good health. The body can't make its own nutrients, so they must be provided by the food we eat.
- Unhealthy foods e.g. sweets and chips contain very little nutrients and are high in sugar and/or salt.
- We should choose healthy foods more often to keep us healthy and to grow well.
- We should choose unhealthy foods only occasionally (not too often), as unhealthy foods can lead to harmful conditions such as obesity, heart disease, diabetes and tooth decay.

Does anyone know why it is important to eat a variety of healthy foods?' 'Does anyone know what it means to enjoy a balanced diet?'

Possible answers:

- We should try to eat a variety of healthy foods every day. Different foods contain different nutrients. Our body needs a range of nutrients from a variety of foods to stay healthy and grow well.
- When we eat a variety of healthy foods every day, we say our diets are balanced. A balanced diet contains a variety of foods full of nutrients to keep us healthy.
- When unhealthy foods (foods high in sugar, salt and unhealthy fats for example) replace healthy foods in our diet, our diet becomes unbalanced and this can lead to illness and poor growth.

The big 5 taste sensation

Main part
Time: ~ 15 min

How to implement

In preparation for class, get foods from each of the 5 food groups. Choose foods that are easy to portion to each student. Examples of foods are fruits and vegetables (raw or cooked, cut into segments), cheese (cut into cubes), yoghurt, cooked lentils, tinned beans, cooked chicken, cooked mince, bread (cut into cubes), whole-wheat crackers, cooked potatoes, cereals, avocado or mayonnaise. Make sure that there is one example from each of the food groups.



Draw 5 columns on the board, each entitled with one of the 5 food groups:

Bread, cereals, rice and pasta
Fruit and vegetables
Meat and meat substitutes
Milk and dairy products
Fats and oils

BREAD, CEREALS, RICE AND PASTA	FRUIT AND VEGETABLES	MEAT AND MEAT SUBSTITUTES	MILK AND DAIRY PRODUCTS	FATS AND OILS
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On plates, give each learner a sample of the 5 foods chosen. Get each student to taste each food. Once all learners have tasted the food, ask them to identify the food on the plate. Then, ask the learners which food group the food belong to.

As the learners call out answers, write the name of each food under the relevant heading.

Teacher's top tip: Make sure that you are aware of any potential food allergies the learners may have. Exclude food such as peanuts, tree nuts, shellfish or soya. If possible, send a note home to each parent before the planned lesson, asking him/her to return the note with information on possible allergic conditions of each learner.

Teacher's top tip: Be sure to follow food safety principles. Keep cooked food at the correct temperatures until the activity begins. Also, make sure that the cooked food is not kept for longer than 48 hours.

Activity 2

Main part
Time: ~ 10 min

How to execute

Instruct the learners to complete worksheet 3.1.1. The worksheet instructs the learners to draw a balanced meal for supper. The learner should choose food from each of the 5 food groups.

Teacher's top tip: Highlight that the key to making healthy food choices is to eat a variety of foods from each of the food groups. The key to a balanced meal is to choose healthy foods from each of the food groups at each meal.

Summary

Wrap up
Time: ~ 2 min

Ask the learners what they have learnt today. Try to create an open dialogue with the learners and encourage them to ask questions about healthy food choices and how they can apply this information at home. Reflect on the importance of making good food choices and enjoying a variety of healthy foods every day.



My balanced supper

Worksheet 3.1.1

Name: _____

Date: _____ Class: _____

Fill in the information below and then draw your balanced meal in the box below.

Food group

Food choice

Bread, cereals, rice and pasta

Fruit and vegetables

Meat and meat substitutes

Milk and dairy products

Fats and oils

BUILD YOUR HEALTHY MEAL

Fruit and vegetables



+

Bread, cereals, rice and pasta



+

Milk and dairy products



+



Meat and meat substitutes

+

Fats and oils



=

HEALTHY FOOD CHOICES



Healthy fuel for the body

Nutrition: Foundation phase

Materials

- Healthy Fuel for the Body Poster
- Images of Cars (as described below)
- Board and Board Markers
- Empty Cereal Boxes
- Colourful or White Sheets of Paper or Cardboard
- Glue
- Scissors
- Crayons
- Colour Dice (as described in the activity below)

Aim

- Understand that nutrients act as fuel for the body.
- Understand the role of vitamins and minerals in the body.
- Identify healthy sources of energy for the body.
- Identify unhealthy sources of energy for the body.

Introduction

Introduction
Time: ~ 3 min

Welcome the learners; introduce the daily topic and summarise the planned lesson.

Ice breaker

Before the lesson, try to find a large image of a shiny, attractive sports car and an old, rusty, beat-up car. Show these cars to the learners and ask which car they would prefer and why. Link this to the group discussion below.

Group discussion

Introduction
Time: ~ 10 min

Create a dialogue around the following topic: Begin with the analogy of a car. Ask the learners what a car needs to run/function. Then, ask the learners what happens to a car when it runs out of petrol. Or what happens when you put poor quality, or the wrong type of petrol into a car. Also, ask the learners what happens when you do not look after a car properly. Does the car continue to work well, or does it start to give problems and eventually break down?

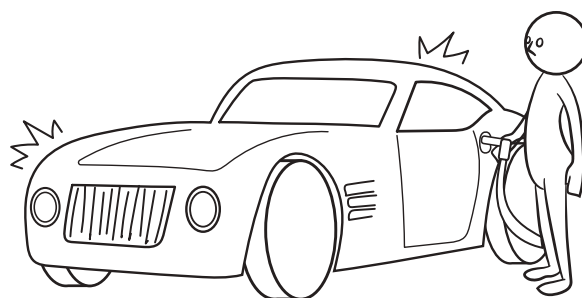
Explain to the learners that if you look after a car well and provide the car with the correct fuel etc. the car will run well for many years. Our bodies are like a car and the food we eat is like the petrol or fuel. We need to fill our body with healthy fuel (food) for us to be healthy and grow well.

Ask the learners: 'Which nutritious foods provide our body with healthy fuel/energy? What are some of the benefits of choosing healthy fuel (food) for our bodies?'

Possible answers:

- The learners can mention any healthy food from the food groups e.g. fruit, vegetables, whole-grains, dairy products or healthy fats.
- Nutritious foods provide the best fuel for our bodies to stay healthy, grow and learn.

Teacher's top tip: Introduce the students to the terms 'vitamins and minerals'. Explain that nutritious foods contain vitamins and minerals. Vitamins are nutrients found in food and that protect our bodies from illnesses such as the flu or diarrhoea. Minerals are nutrients which help our bodies to work properly. Fruit and vegetables are especially high in vitamins and minerals and that is why we should aim to eat these foods every day.

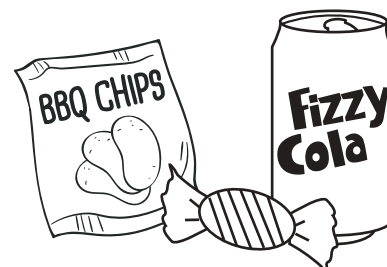


Group discussion

Continued

'Which unhealthy foods are not good sources of fuel/energy for our body? Does anybody know why these foods do not provide us with the right type of fuel for our body?'

- The learners can mention any food that is high in salt, unhealthy fats or sugar e.g. chocolates, sweet, vetkoek, chips, fizzy drinks etc.
- Unhealthy foods usually contain very little nutrients for our body. These foods are usually high in sugar, unhealthy fats or salt. When we choose to eat unhealthy foods (instead of healthy foods) our bodies may not get enough of the proper type of fuel and this may lead to illnesses such as diabetes, high blood pressure or heart diseases.



Teacher's top tip: Highlight that eating healthy is a choice we make every day. We should try to choose healthy food wherever possible. The aim is to fuel our bodies with healthy foods to be healthy and function well. Just like a car.

Breakfast of champions

Main part: Option 1
Time: ~ 25 min

How to implement

Before the activity, collect empty cereal boxes over a time period. Glue colourful or white sheets of paper or cardboard onto the side of each box, successfully providing a blank canvas for the learners to work.

Divide the learners into appropriate size groups. Begin the activity by asking the learners why they think it is important to eat breakfast daily.

Possible answers include:

- To provide fuel for the day.
- To help you concentrate in class.
- To be healthy and grow well.

Ask the learners to create their own brand of cereal. The learners can come up with a name to best describe how they feel about breakfast. Encourage the learners to write some of the key features of the cereal that makes it a nutritious choice for breakfast. The learners then present their new cereal to the class highlighting the key features.



Roll the dice, colour your life

Main part: Option 2
Time: ~ 25 min

How to execute

Before the class, make a dice out of cardboard paper (it may be beneficial to create a second dice as a back-up). Make sure that each side of the dice is a different colour and that each colour matches a colour of fruit or vegetable (white, red, yellow/orange, green and purple/blue).

Divide the class into groups. Explain to the learners that the nutrients and benefits of fruit and vegetables can be differentiated by their colours. Ask the learners to call out the colours of different fruits and vegetables. As the learners call out the colours, write each appropriate answer on the board as follows:

- Red (e.g. tomato, watermelon or red pepper)
- Orange (e.g. carrots, oranges or spanspek)
- Yellow (e.g. bananas, gem squash or yellow pepper)
- Greens (e.g. broccoli, asparagus or kiwi fruit)
- Blue or purple (e.g. eggplant or blueberries)

Roll the dice, colour your life

Continued

Ask a few learners to come up and roll the dice. The learner needs to call out a fruit and vegetable with a matching colour. Write these fruit and vegetables as examples of each colour (as shown above). Working in groups, ask the learners to come up with creative ways that they can include more colourful fruit and vegetables in their own daily diets. The groups can then present their ideas to the class.

Ideas could include:

- Eat a fruit or vegetable at each meal.
- Add vegetables as a topping for a sandwich.
- Add vegetables to stews, curries, pastas and other dishes.
- Enjoy a fruit or vegetable as a snack.
- Enjoy a fresh fruit at breakfast with your cereal.
- Bring vegetable sticks and a dip to school as a healthy snack.
- Eat a salad with your supper.
- Enjoy warm soups in winter that are packed full of vegetables.



Teacher's top tip: As fruit and vegetables are called out, try to mention the health benefits of the fruit or vegetable. For example, oranges boost the immune system and prevent colds and flues. Spinach is good for the blood. Carrots are important for healthy eyes. Apples are high in fibre which is important for a healthy digestive system.

Summary

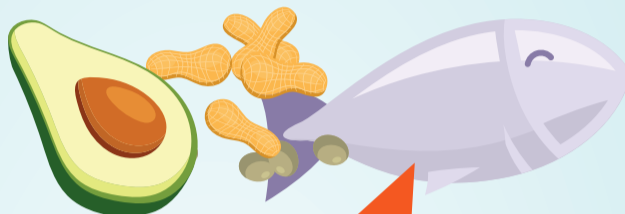
Wrap up
Time: ~ 2 min

Ask the learners what they have learnt today. Try to create an open dialogue with the learners and encourage the learners to ask questions about healthy fuel for the body and how they can apply this information at home. Reflect on the importance of making good food choices and enjoying a range of healthy foods every day.

HEALTHY EATING

FROM TOP TO TOE

Brain



Eyes



Teeth



Heart



Digestive System



Bones



Muscles



FUEL YOUR BODY!



Food digestion

Nutrition: Foundation phase

Materials

- Food Digestion Poster
- Board and Board Markers
- Apple
- Saltine Crackers
- Plastic cups
- Ice-cold water
- Pantyhose
- Round fruit
- Food Blender or Potato Masher
- Appropriate food as described below

Aim

- Develop a basic understanding of the anatomy of the digestive system.
- Understand how the body processes food and how food is broken down.
- Define the terms 'digestion' and 'absorption'.

Introduction

Introduction
Time: ~ 2 min

Welcome the learners; introduce the daily topic and summarise the planned lesson.

Ice breaker

Show the class an apple or other appropriate food. Take a bite of the apple. Ask the learners what happened to the piece of apple? Link this to the group discussion below.



Group discussion

Introduction
Time: ~ 10 min

Ask the learners: 'Can anyone remember the reason people eat food? What are nutrients?'

Possible answers:

- We need food to survive. The food we eat provides our bodies with important nutrients that are needed to function in our daily lives. Food provides us with energy and nutrients in order to grow, learn and play.
- Nutrients are found in food and are important for good health. The body can't make its own nutrients, so they must be provided by the food we eat.

Describe a scenario to the learners: You are on your lunch break and are enjoying a meal. You think to yourself: 'Yum! Mmm... This food really tastes good!' The break bell rings and in your rush, you quickly forget about your lunch and rush to get to the next class. While you are focused on learning during your next class, what is happening in your body? What happened to the yummy lunch you just ate?

Write the words 'digestion' and 'digestive system' on the board. Ask the learners: 'Does anyone know what digestion means? And what is the role of the digestive system in our bodies?'

- Our bodies break down the food we eat into tiny pieces (nutrients). This process is called digestion.
- Our bodies need to break down (digest) the food we eat so our body can use the nutrients found in the food.
- Without digestion, our bodies would not be able to use the nutrients in the food to live and to grow.
- The digestive system's role/function in the body is to break down the food into nutrients (tiny pieces) for our body to use/benefit from the food we eat.

What happened to the cracker?

Main part
Time: ~ 15 min

Mouth and oesophagus

How to implement

Before class, get the following items: Saltine crackers e.g. cream crackers (one for each learner), plastic cups (one for each learner) and ice-cold water (keep in the fridge until planned lesson).

On the day of the lesson, bring a pair of pantyhose (cut into half) to class and a large, round fruit (e.g. orange).

What happened to the cracker?

Continued

Give the crackers to the learners. Ask the learners to place a small piece of the cracker in their mouths. Ask the learners not to chew the cracker, just hold the cracker in their mouths. Then ask the learners to chew the cracker and eventually swallow.



Ask the learners the following questions:

- What happened to the cracker when it was in your mouth?
- Did it begin to get soft? Why?
- What happened when you started to chew the cracker with your teeth? Why do we chew food? How did the food become smaller?
- What happened to the cracker once it was swallowed?

Teacher's top tip: explain to the learners that the first stage of digestion happens in the mouth. Firstly, the saliva helps soften and break down the food and then the teeth cut and grind the food into smaller pieces during chewing. Food can then be swallowed. Highlight that people would not be able to swallow food, without chewing the food. Write the words 'mouth' and 'teeth' onto board.

Give each learner a portion of cold water. Ask the learner to take a sip of the water. Instruct the learner to feel where the water travels (down the oesophagus). Show the learner the pantyhose. Place the fruit into the pantyhose (top) and using your hands show the learner how the orange moves down the oesophagus into the stomach.



Below the word 'mouth' write the word 'oesophagus' onto the board. Draw an arrow from mouth to oesophagus to show the flow of the food.

Teacher's top tip: Explain to the learners that the oesophagus is a tube that connects the mouth and the stomach. The food travels from the mouth into the stomach through the oesophagus.

Digesting the facts – what happens next?

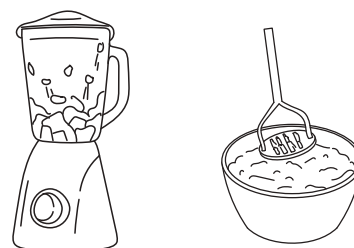
Main part
Time: ~ 10 min

The stomach and intestines

How to implement

Option 1: Bring a food blender or processor to class with appropriate foods. Show the learners how the blender or food processor breaks down food into a puree texture. Explain to the learners that the blender is like the stomach.

Option 2: Bring 2 potato mashers and cooked (peeled) potatoes to class. Ask two learners (volunteers) to come up and mash the potatoes as much as possible. Explain to the learners that the stomach also mashes up the food into tiny pieces.



Write down the word 'stomach' on the board, beneath oesophagus. Draw an arrow from the oesophagus to the stomach to show the flow of the food.

Teacher's top tip: explain to the learners that the food stays in the stomach for a few hours, breaking it down into tiny pieces (nutrients) that our body can use.

Write the word 'intestine' on the board, beneath the stomach. Draw an arrow from the stomach to the intestines to show the flow of the food. Explain to the learners that the small intestine takes the nutrients from the food and puts them into the body. This is called absorption. Write the word 'absorption' next to intestines in brackets.

Summary

Wrap up
Time: ~ 3 min

Ask the learners what they have learnt today. Recap some of the key words and definitions using the diagram.

THE DIGESTIVE SYSTEM



Teeth

Teeth mechanically break down the food (cutting, grinding and tearing)

Mouth

The mouth is the beginning of the digestive tract. Saliva mixes with the food to begin breaking down the food.

Oesophagus

The oesophagus is a tube that connects the mouth and stomach. The food moves down the oesophagus to the stomach.

Stomach

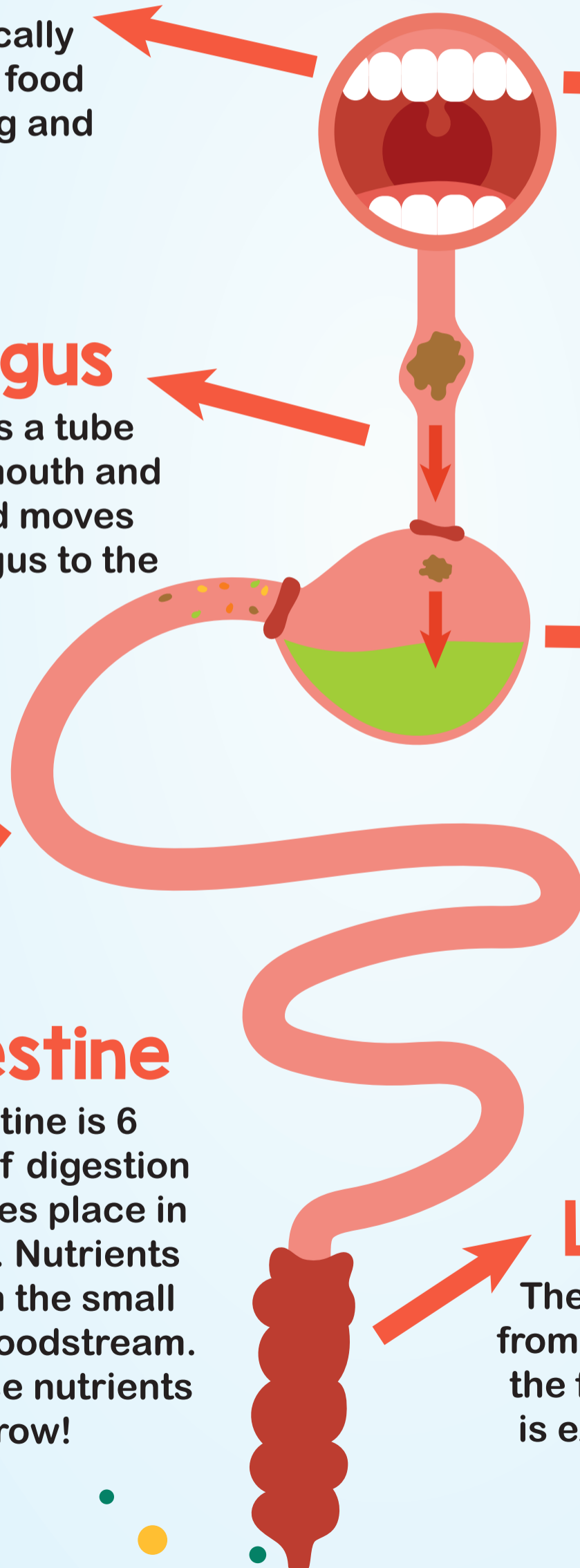
The food stays in the stomach for several hours. Acids and enzymes partially digest the food over time.

Small intestine

The small intestine is 6 meters long! 90% of digestion and absorption takes place in the small intestine. Nutrients are absorbed from the small intestine into the bloodstream. The body uses these nutrients to live and grow!

Large intestine

The large intestine absorbs water from the food. Waste products (from the food) that the body cannot use, is excreted from the body through the large intestine.





Assessment: Nutrition

First and last name: _____

Date: _____

Class: _____

1. Choose the correct answer:

Which food belong to the milk and dairy food group?

- Carrots
- Bread
- Cheese

How often should we eat fruit and vegetables?

- Once a week
- Once a month
- Everyday or as often as possible

Which food belongs to the meat and meat substitutes group?

- Bananas
- Beans and Lentils
- Potatoes

To grow well and stay healthy, we should eat:

- Foods high in sugar
- Foods high in salt
- Foods high in nutrients

(4 marks)

2. The Digestive Tract (3 marks)

Connect the different parts of the digestive tract with its function.

Intestines

The food travel through this tube, from the mouth to the stomach.

Oesophagus

Chew food into little pieces.

Teeth

Takes the nutrients from the food and puts it into our body.

(3 marks)



Assessment: Nutrition

3. List 3 harmful conditions or diseases we can develop if we follow an unhealthy diet/lifestyle.

1. _____
2. _____
3. _____

(3 marks)

4. List two healthy foods that belong to each of the five food groups.

Bread, cereals,
rice and pasta

1. _____
2. _____

Meat and
meat substitutes

1. _____
2. _____

Fruit and
vegetables

1. _____
2. _____

Milk and
dairy products

1. _____
2. _____

Fat and oils

1. _____
2. _____

(10 marks)



Assessment Memo: Nutrition

1. Choose the correct answer:

Which food belong to the milk and dairy food group?

- Carrots
- Bread
- Cheese

How often should we eat fruit and vegetables?

- Once a week
- Once a month
- Everyday or as often as possible

Which food belongs to the meat and meat substitutes group?

- Bananas
- Beans and Lentils
- Potatoes

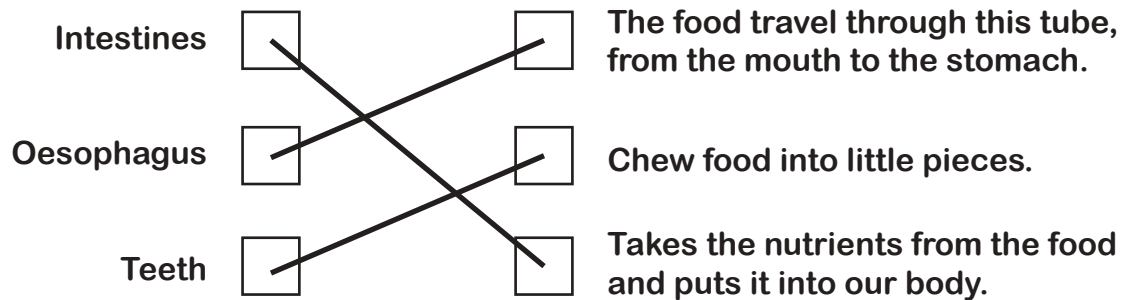
To grow well and stay healthy, we should eat:

- Foods high in sugar
- Foods high in salt
- Foods high in nutrients

(4 marks)

2. The Digestive Tract (3 marks)

Connect the different parts of the digestive tract with its function.



(3 marks)



Assessment Memo: Nutrition

3. List 3 harmful conditions or diseases we can develop if we follow an unhealthy diet/lifestyle.

1. Diabetes
2. Heart Disease
3. High Blood Pressure/Obesity
4. Cancer
5. Obesity
6. Tooth Decay
7. Any other acceptable disease that is caused by poor dietary intake

(3 marks)

4. List two healthy foods that belong to each of the five food groups.

Bread, cereals,
rice and pasta

Bread, bread roll, pasta, wraps, pasta, rice, porridges, potatoes,
sweet potatoes etc.

Meat and
meat substitutes

Meat, chicken, fish, egg, beans, lentils, soya mince, mince, peanut
butter*, nuts* etc.

Fruit and
vegetables

Any fruit and vegetable (except potato and sweet potato)

Milk and
dairy products

Yoghurt, milk, amasi, custard, cheese etc.

Fat and oils

Butter, margarine, oil, mayonnaise, salad dressing, avocado, nuts*,
peanut butter*, coconut butter, coconut oil, almond butter etc.

*Note: certain foods such as peanuts and nuts can be placed under either the meat and meat substitutes or fats and oils food groups

(10 marks)

GOOD LUCK!

