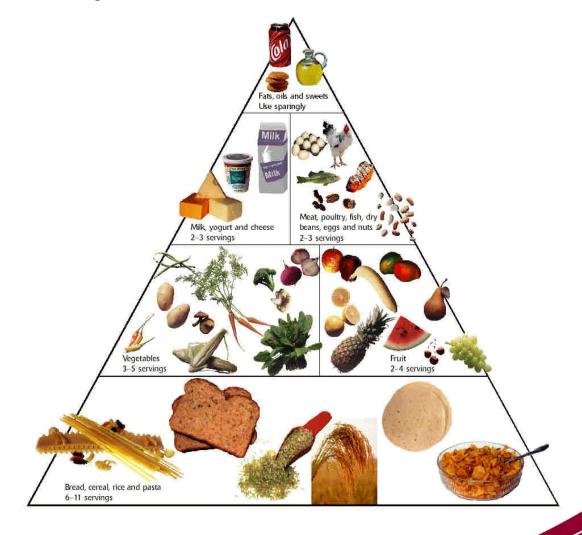
## **ADDENDUM II**

## **Education material strengthening the Musical Play**

(Programme book & Pamphlets)

# Voeding Projek / Nutrition Project

Me K. Kruger Me M. Harris





#### Agtergrond oor hierdie projek

#### (i) Wat is die doel van hierdie projek?

Obesiteit, veral kinderobesiteit is een van die grootste epidemies van die dag. Die twee mees algemene faktore wat bydra tot obesiteit is 'n ongebalanseerde dieet en onaktiwiteit. Die musiekspel spreek beide hierdie faktore aan, deur voedingkennis rakende die Suid-Afrikaans voedselgebasseerde dieet riglyne asook die fisieke aktiwiteitsvlakke van kinders te verbeter. Deur voedingkennis te verbeter kan voedingpraktyke ook aangespreek word en daardeur kan obesiteit moontlik bekamp word.

# (ii) Waar kom die bewegings en liedjies vandaan?

Gedurende 2007 was verskeie werkswinkels gehou waartydens laerskool kinders met verskillende bewegings en liedjies vorendag moes kom wat hulle assosieer met die Suid-Afrikaanse Dieet Riglyne. Hierdie bewegings is agterna aangepas en ingesluit in die musiekspel wat u kind die afgelope 5 weke aangeleer en ingeoefen het.

#### Background to this project

#### (i) What is the aim of this project?

Obesity, especially obesity amongst children, is becoming a worldwide epidemic. The two most general factors contributing to obesity is poor dietary habits and physical inactivity. Both these factors are addressed within this musical play by means of increasing nutritional knowledge regarding the South African foodbased dietary guidelines and physical activity levels. By increasing nutritional knowledge, nutritional practice can be addressed and thereby promoting the prevention of obesity.

## (ii) Where do the movements and songs come from?

During 2007 several workshops were held during which primary school children came forward with different movements and songs which they associated with the South African Food Based Dietary Guidelines. These movements were adapted afterwards and were included into the musical play which your child have learned and exercised for the last 5 weeks.

# Die Suid-Afrikaanse voedselgebasseerde dieet riglyne

- 1. Geniet 'n verskeidenheid voedsels.
- 2. Eet vyf klein etejies 'n dag.
- Maak stysel die basis van jou maaltye.
- 4. Eet baie groente en vrugte elke dag.
- 5. Vleis, vis, hoender en eiers kan elke dag geëet word.
- 6. Drink melk elke dag.
- 7. Gebruik vet spaarsamig.
- 8. Eet droë bone, erte, lensies en soja gereeld.
- Gebruik suiker en suikerbevattende voedsels spaarsamig.
- 10. Gebruik sout spaarsamig.
- 11. Geen alkohol vir kinders onder 18
- Drink genoegsaam skoon, veilige water.
- 13. Wees aktief.

# The South African food-based dietary guidelines

- 1. Enjoy a variety of foods.
- 2. Eat five small meals a day.
- Make starches the basis of most meals.
- Eat plenty of vegetables and fruits every day.
- Meat, fish, chicken and eggs can be eaten every day.
- 6. Drink milk every day.
- 7. Eat fats sparingly.
- 8. Eat dry beans, peas, lentils and soya often.
- Use sugar and sugar containing foods and drinks sparingly.
- 10. Use salt sparingly.
- 11. No alcohol for children under 18
- 12. Drink plenty of clean, safe water.
- 13. Be active.

## 1) Enjoy a variety of food:

Individuals, including children need specific nutrients to maintain a healthy lifestyle.

Nutrients are the building blocks for the body that each provides a different type of nourishment for the body. For your body to absorb all the different nutrients, you need to take in a variety of different foods on regular time intervals.

## A variety of foods include the different food groups within the food pyramid:



<u>Level 1</u>: Starches. (At the bottom of the food pyramid)

Level 2: Fruits and vegetables.

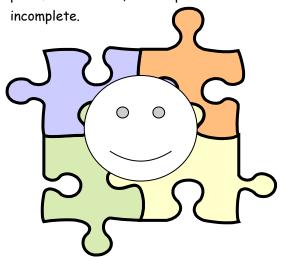
Level 3: Meat and meat products & Milk and milk products.

<u>Level 4</u>: Fat (at the top of the food pyramid).

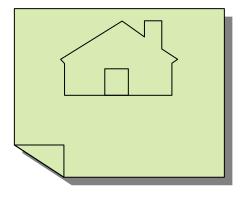
Whenever you don't consume a variety of foods, your body develops a deficiency and cannot function properly.

A deficiency can be explained according to the following two examples:

1.) As a puzzle that is short in one piece; therefore, the picture seen is incomplete.



2.) A deficiency can also be explained as a house without all the basic building material (building blocks, e.g. windows); therefore, the house is also incomplete.



## 2) Eat 5 small meals a day:

The reason for taking these foods on regular time intervals is to maintain your energy levels (blood glucose) and to ensure that you don't overeat at one specific time.



Energy can be defined as the power your body needs to function properly. When you overeat at one specific time without the same amount of exercise, your energy intake exceeds your energy expenditure (the amount you use); therefore, your body stores the excess foods as fat.

Here is an example of a food plate and how it should be divided between the five different food groups according to the recommended amount for consumption:



# 3.) No alcohol under the age of 18 years.

The results of too much alcohol:



1. Alcohol can make a person become aggressive.





2. It can change a person's behaviour and make you do things that he/she would not normally done.



3. Alcohol can negatively influence a person's concentration (easily get tired) and coordination (estimating distance) which could be dangerous if a person is driving a motor vehicle.



4. Alcohol can also damage a person's brain and/or liver.

Brain:



Liver:



# Guideline 4: Make starchy foods the basis of most meals.

- Starchy foods (refined- and unrefined starchy foods) are mainly responsible for providing energy to the body.
- Energy can be defined as the power our bodies need to be able to function properly or to be physically active.
- Unrefined starchy foods are the best choice of starches to include into your diet. It contains fibre that helps
  - > with regular bowel function
  - keeping blood glucose (blood sugar) levels constant
  - it makes your stomach feel full for a longer time period (you won't get hungry easily)
  - having energy (power) available for a longer period of time
- Refined starchy foods are broken down quickly to provide energy only for a short period of time. This will cause the body to feel tired quickly because of variations in the blood glucose levels (a sudden increase in blood glucose levels followed by a sudden decrease in blood glucose levels).

The following examples indicate better choices of starchy foods due to their fibre contend



















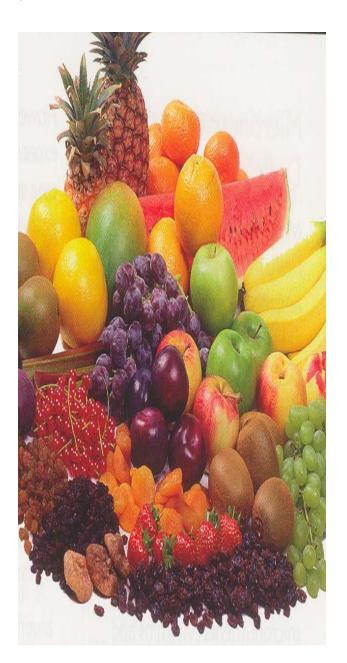




# Guideline 5: Eat plenty of fruits and vegetables.

- Fruits and vegetables contain a lot of vitamins and minerals.
- Vitamins are nutrients within foods which protect the body.
- Minerals are nutrients which the body needs to function properly.
- Vitamins and minerals are the soldiers within the body that protect you against diseases (e.g. bacteria).
- Therefore, vitamins and minerals increase the body's immunity. Immunity of the body is the body's ability to fight of diseases (e.g. bacteria).
- Therefore, the more fruits and vegetables you eat, the more soldiers your body has to protect it against diseases (e.g. bacteria) and the higher your body's immunity will be.

## **Fruits**



## Vegetables





## <u>Guideline 6:</u> <u>Use salt sparingly</u>

When consuming too much salt certain health risks can occur:

 High salt intake can cause high blood pressure.





Whenever large amounts of salt are consumed the pressure within the blood veins increases and therefore the risk for a stroke or a heart attack increases. In order to prevent these attacks you should consume little amounts of salt and have your blood pressure checked regularly.

 High blood pressure in turn can cause a stroke.



Whenever a large amount of salt is consumed and the blood pressure increases, your risk for a stroke increases. When the blood pressure within the blood veins becomes too high, the veins literally burst - this is the stroke

 High salt intake can also cause heart failure (a heart attack).





The high blood pressure increases also the risk for a heart attack.

# 7.) Meat, fish, chicken & eggs can be eaten daily.

Proteins are the main building blocks of muscles in the body.



Examples of proteins that can build the body's muscles are red meat, fish, chicken and eggs (animal proteins). Animal proteins contain a lot of fat (especially saturated fat - so called "bad fat"), and must therefore be eaten in small quantities (Remember to remove all visible fat from meat).

Red meat is also a source of iron. The body needs iron (iron can be visualize as a small boat and water as blood) to carry oxygen around in the body. If the body would develop a deficiency (small quantities of iron-boats carrying oxygen), it can lead to feeling tired (not enough oxygen).



Food with a content of high quality iron, include organ meat, red meat, fish, and chicken. Spinach, broccoli and beans have an iron content of low quality.

## 8.) Milk can be drink daily.

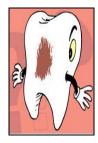
Milk and milk products as well as the bones of pilchards are a good source of calcium, which is important for strong bones and teeth.

A strong bone structure and teeth in comparison to a frail bone structure and bad teeth:









2 - 3 portions of the meat and meat products, as well as the milk and milk products can be eaten daily.

## Examples for the recommended amount of intake:

- 400-500 ml / 2 cups of low fat milk and / or low fat yoghurt per day.
   (1 portion - 250ml, 1 cup)
- 3 portions fish per week.
  (1 portion 120g)
- · 4 eggs per week.
- 560g meat per week.
  (1½ portion 80-90g/per day).

= Iron

<sup>\*30</sup> g is the size of one match box.

## Guideline 9: Eat fats sparingly

- Fats have certain roles within the body:
  - (1) source of energy
  - (2) help with growth
  - (3) protect against illness
  - (4) help with body warmth
  - (5) help with absorption of fat-soluble vitamins (ADEK).
- There is three aspects of fat that is important to your health:

### (1) The type of fat

There are different types of fats:

- a) good fats (mono- and polyunsaturated fats; mostly plant fats)
- b) bad fats (saturated and Trans fatty acids; mostly animal fats)

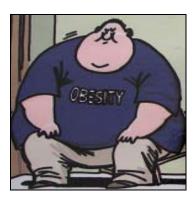
### (2) The amount of fat

The recommended amount of fat is 2 to 3 portions per day.

### (3) The method of preparation

There are healthy and unhealthy methods of preparing food:

- a) healthy preparation methods include boiling, steaming, roasting, pan frying (if moderate amounts of fats are used) and grilling.
- b) unhealthy preparation methods include deep frying.
- The sources of fat can be:
  - (1) visible fat (the fats you can see and identify) and/or
  - (2) invisible fat fats hidden within other foods (for example the invisible fat within meat)
- The health risks that are associated with a high fat intake (especially saturated fat) are the following:
  - (1) obesity
  - (2) diabetes mellitus
  - (3) hypertension
  - (4) heart problems

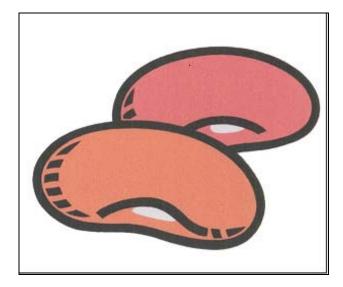


# Guideline 10: Use foods and drinks containing sugar sparingly and not between meals

Sugar and sugar containing drinks and foods (give a few examples - same as the representative movements that are used) are high in energy. If these foods and drinks are consume in large amounts it can easily lead to a feeling of satiety, and this in result lead to a diet lacking in variety and balance between the five different food groups. Since sugar and sugar containing drinks and foods are high in energy, and most of the time is also high in fat this can easily lead to obesity in the absence of the required physical activity. There will also be referred back to sugar's association with teeth decay. It will be stressed that sugar and sugar containing drinks and foods must rather be consumed in small amounts after meals in order to ensure that the body consume all the necessary and appropriate nutrients.



# 11.) Dry beans, split peas, lentils and soya products can be eaten regularly.



Why are beans, lentils, split peas and soya products good alternatives for meat and meat products?

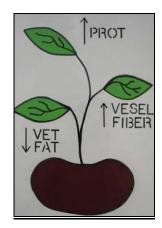
- It contains good quality proteins.
- It is low in fat and sodium.
- It is high in fibre.
- It is a cheap alternative for meat.

## What are the health advantages of beans and soya?

- It makes your stomach feel full for a longer time period.
- It keeps blood glucose levels constant.
- It increases intestinal tract motility (movement).
- It can be eaten daily if you want to lose weight.
- It keeps blood cholesterol ("bad fat") low.

# Examples of how you can include beans and soya into your diet:

- In soup.
- As a side dish.
- As an alternative for meat.
- Also in combination with starches, like for instance lentils with rice and beans with samp.



## Example of a recipe that includes beans:

- 250 ml cooked, white or brown beans 1 x 410 g tin KOO Sugar Beans or KOO Butter Beans.
- 250 ml cooked, shell noodles.
- 3 large gherkins, chopped.
- 1 onion, finely chopped.
- 2 stalks of celery, chopped.

#### Dressing:

- 250 ml buttermilk or yoghurt.
- 125 ml low fat mayonnaise.
- 5 ml mustard powder,
- 5 ml sugar.
- 50 ml chives or parsley, chopped salt and pepper to taste.
- 1.) Mix the ingredients for the salad.
- 2.) Mix and beat the ingredients for the dressing.
- 3.) Pour the dressing over the salad.
- 4.) Mix well and chill until served.

# 12.) <u>Drink lots of clean, safe</u> water:



The biggest part of our body (organs) consists out of water. This water is easily lost through the body regulating processes of sweating (especially after exercising) and urinating. In order to regulate the body's hydration status, it is important to drink lots of clean, safe water during the day (4-8 glasses of water).





## 13.) Be active:



To be active, means that you need to do certain activities that will move your muscles. If you are regularly active, it will not only lead to that you feel good, but also help to increase your body's muscle percentage and decrease your body's fat percentage.

Everybody, depending on your age needs to do a certain amount of exercise per day. A minimum of 30 minutes/day are recommended for most of the days of a week.

To exercise does not mean that you only need to go to the gym, or do sport, it also includes basic household activities such as cleaning the house and washing the car.