| Grade 6 | Personal and Social Well-being  
| Term 4 | Topic 3: Health and environmental responsibility  
- Food hygiene:  
  - Safe and harmful ingredients  
  - Food preparation  
  - Food storage  
  - Food-borne diseases |
Sugar sums

It is recommended that children should have no more than 24 grams of sugar a day. That is equal to 6 teaspoons.

1. In all the questions below please show your sums/workings.

a. If 24 grams of sugar is equal to 6 teaspoons of sugar, how many grams of sugar are in 1 teaspoon?

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b. If you drink 3 cups of tea every day with 2 teaspoons of sugar in each cup of tea, how many teaspoons of sugar will you have had by the end of the day? How many grams is this?

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c. If you want a biscuit with your tea at night and your biscuit contains 8 grams of sugar, how many teaspoons of sugar does that equal? (Remember there are 2 teaspoons of sugar in the cup of tea).

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d. If you want to stick to the daily allowance of 24 grams of sugar and you cut down your sugar to 1 teaspoon in your tea, how many cups of tea can you drink if you had a biscuit as a treat every night?

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2. A small can (200ml) of fizzy drink has about 16g of sugar.
   a. How many teaspoons of sugar does the fizzy drink give you?
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      ........................................................................................................................................................................................................
   b. If you had 2 small cans a day, how much sugar would you have in excess of the 24g allowance?
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      ........................................................................................................................................................................................................
1. People in various countries have different types of foods available to them. They, therefore, have different traditions and cultures relating to food. In general, this is what a basic food plate looks like. The different groups of food are shown in the amounts they should be eaten in relation to one another.

2. Use the information in the diagram above to draw your own plate based on the foods you eat at home and school.
3. Label the food groups as well.
4. Do you think you are eating the correct proportions of food?
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5. What 3 changes could you make to your diet so that you are following the guidelines?
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Proudly brought to you by Pick n Pay School Club
1. Read the following and answer the questions that follow.

Early humans got enough sodium (another word for salt) in their diet from eating animal meat. This was enough for the body to get the benefits it needed. As humans eating habits changed, man started eating more grains and vegetables. They realized that adding some salt to their grains and vegetables gave it a similar taste to what they were used to with meat. And so, began the addition of salt to food.

Humans then learned how salt helped to preserve food and so more and more salt began to be added to food over time. As a result, most humans now have too much salt in their diet. We need to make an extra effort to avoid food with too much salt.

If you have too much salt in your diet, your body holds on to water. This raises your blood pressure. Raised blood pressure is dangerous for many organs, especially the heart.

The World Health Organisation recommends that our salt intake should be less than 5 grams per day. But in South Africa, our salt intake is closer to 9 grams per day!

This table, developed by the Heart and Stroke Foundation South Africa, is a guide to which foods are low and high in salt or sodium.

<table>
<thead>
<tr>
<th>LOW SALT</th>
<th>HIGH SALT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eat these foods most often.</td>
<td>Limit these foods</td>
</tr>
<tr>
<td>120 mg or less sodium per 100 g</td>
<td>600 mg or more sodium per 100 g</td>
</tr>
</tbody>
</table>
2. Use the table to decide whether these foods have no salt added or salt added.
   Place a tick in the correct column.

<table>
<thead>
<tr>
<th></th>
<th>NO SALT ADDED</th>
<th>SALT ADDED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salted nuts and raisins</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pap</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Takeaway burger</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yoghurt</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Polony</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3. Based on the information in the table, are you eating too much salt? Why/Why not?
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4. List 3 ways in which you can reduce salt in your diet.
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5. You are in charge of cooking breakfast in your house on Sunday! Create 2 menus – one which is high in salt and one which is moderate to low in salt. Write down what you will cook for each meal in the table below:

<table>
<thead>
<tr>
<th>High salt breakfast</th>
<th>Low salt breakfast</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
1. Do not add salt to cooked food that has salt in it.
2. Rinse canned vegetables, beans, peas and lentils before you cook with them.
3. Use less stock cubes and gravy powder.
4. Check food labels for sodium (salt) content and choose fresh, unprocessed food.
5. Eat salty snacks less often.
6. Eat less take-aways.

<table>
<thead>
<tr>
<th>Food Item</th>
<th>Salt Added</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salted nuts and raisins</td>
<td>NO SALT ADDED</td>
</tr>
<tr>
<td>Yoghurt</td>
<td>V</td>
</tr>
<tr>
<td>Polony</td>
<td>V</td>
</tr>
<tr>
<td>Takeaway burger</td>
<td>V</td>
</tr>
<tr>
<td>Pap</td>
<td>V</td>
</tr>
</tbody>
</table>
1. Fruit and vegetables are excellent sources of vitamins and minerals.

2. Read this poem about them and answer the questions that follow.

Vitamin A has a mission,  
To give to you strong bones and vision.

Vitamin D is from the sun,  
And helps the mineral calcium.

Vitamin E always goes zoom,  
To help your system stay immune.

Vitamin K helps you clot,  
That way you won’t bleed a lot.

Vitamin C won’t let you get sick,  
You’ll pump iron more quick…ly.

B Vitamins 1, 2, 3, 5, 6, 7,  
Work to keep your engine revvin’

Folic acid is number 9,  
Keeps your DNA working fine.

12 is needed, you will see,  
For nerves and blood and energy.
a. How does vitamin C help us?

b. Vitamin K helps you clot. Do you know what clot means?

c. Which vitamin has 7 types? What is their function? (Write this in your own words)

d. What’s our best source of vitamin D?

e. Vitamin A is good for our eyesight and comes from brightly coloured fruits and vegetables. Can you think of three good sources of vitamin A?

3. Write a poem about fruit and vegetables.

   *Your poem can rhyme...or not.*
   \*Be sure to give it your best shot.*

   (Sample poem)

   The sun is the best form of vitamin D
   when your body needs it, it’s stored in your skin.
   Dark green vegetables, orange, yellow fruits
   give you energy, keeps you healthy.
   Prevention is better than cure.

   (Answers)
   Pre vents illness; keeps you healthy.
   When your blood clots it moves from liquid to solid.
   B vitamins – give you energy.
   The sun is the best form of vitamin D.
   Orange and yellow fruits and vegetables + dark green vegetables (spinach, broccoli).
Below is a picture explaining the 2 kinds of fats that get incorporated into our diets through different foods and drinks.

Some fats come from animals and some fats come from plants.

Generally, we should choose fats that come from plants as they are healthier for us. The only exception to this rule is oils from fish. Fish such as salmon and pilchards are high in healthy fats and should be incorporated into our diets.

Rather choose plant oils such as sunflower or canola oil for cooking, olive oil for salads, avocado, nuts, peanut butter and seeds.

Limit fatty meats such as boerewors, sausage, salami and polony, cream and butter.

Using the guidelines on the poster, design a basic brochure about fats for your class members:

a. Explain the different kinds of fats and whether they are good or bad for you.

b. Explain the importance of fish oils (Omega-3 fats) and how to get more of them in your diet.

c. Give examples of which fatty foods to eat less of and which fatty foods to eat more often.
Vegetarians are people who do not eat anything that was killed for it to be eaten (meat, chicken, game, fish). They also do not eat any other foods that contain these animal ingredients. Some vegetarians include eggs and milk in their diet, and they are called lacto-ovo vegetarians.

Vegans are vegetarians who exclude all animal products including eggs, dairy products such as milk and even honey.

Vegetarians and vegans therefore include greater portions of legumes in their diet as they are an excellent source of protein. There are so many to choose from and they can be cooked and eaten in many different ways.

Below is an example of a healthy vegan plate.
1. Your friend, who is a lacto-ovo vegetarian, is coming to sleep over at your house. Your friend eats no animal products apart from dairy and eggs, and will be at your house for lunch, dinner and then breakfast in the morning. Use what you have learned in this lesson to help your parent/caregiver to design well-balanced, nutritious meals for the sleep over.

Lunch

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Rate your heart

Name: ...............................................................    Date: ...............................................................

Heart rate
• Our heart is responsible for pumping blood to all the parts of our body.
• Our blood contains oxygen and nutrients that our body needs to function properly.
• Our heart has to be strong enough to pump blood all over the body.
• The stronger your heart, the more effectively it can beat and the faster our blood can get to all the places it is needed.
• The number of times your heart beats in a minute is known as your heart rate.
• Your heart rate will go up when you exercise.
• We can go for a stroll which will push the heart rate up a little or we can go for a fast run which will push it up much higher.
• The more strenuous the exercise, the faster your heart rate.

Measuring our heart rate
• We can take our pulse from our neck or our wrist.
• To find your pulse in your neck put three fingers of your left hand onto your Adam's apple in your throat (that is the bit that sticks out and goes up and down when you swallow).
• Push gently down on one side of it, and you will find your pulse beating (you can feel it going up and down).
• Then we set a timer for 15 seconds and count how many times we can feel our neck pulse.
• Once we have that number, we multiply it by 4 to see what our heart rate is.
• If I count 20 pulses in 15 seconds, then its $20 \times 4 = 80$. My heart rate is then 80.
1. Let’s see how different activities affect your heart rate.
   a. After each activity count how many times you can feel the pulse in your neck.
   b. Write it down in the first column below.
   c. Then multiply those amounts by 4 and write them in the third column.
   d. This will give you your heart rate.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Heart rate/15 seconds</th>
<th>Heart rate/minute</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sitting at your desk</td>
<td></td>
<td>x 4 =</td>
</tr>
<tr>
<td>Jumping 10 times</td>
<td></td>
<td>x 4 =</td>
</tr>
<tr>
<td>Jumping 20 times</td>
<td></td>
<td>x 4 =</td>
</tr>
<tr>
<td>Walking up the stairs</td>
<td></td>
<td>x 4 =</td>
</tr>
<tr>
<td>carrying nothing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Walking up the stairs</td>
<td></td>
<td>x 4 =</td>
</tr>
<tr>
<td>carrying a full school bag</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Running up the stairs</td>
<td></td>
<td>x 4 =</td>
</tr>
</tbody>
</table>

2. What does the above exercise teach us about how exercise affects our heart rate?
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3. Create two activities of your own that increases your heart rate significantly.
   Practise these activities with a friend and measure your heart rates.
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