

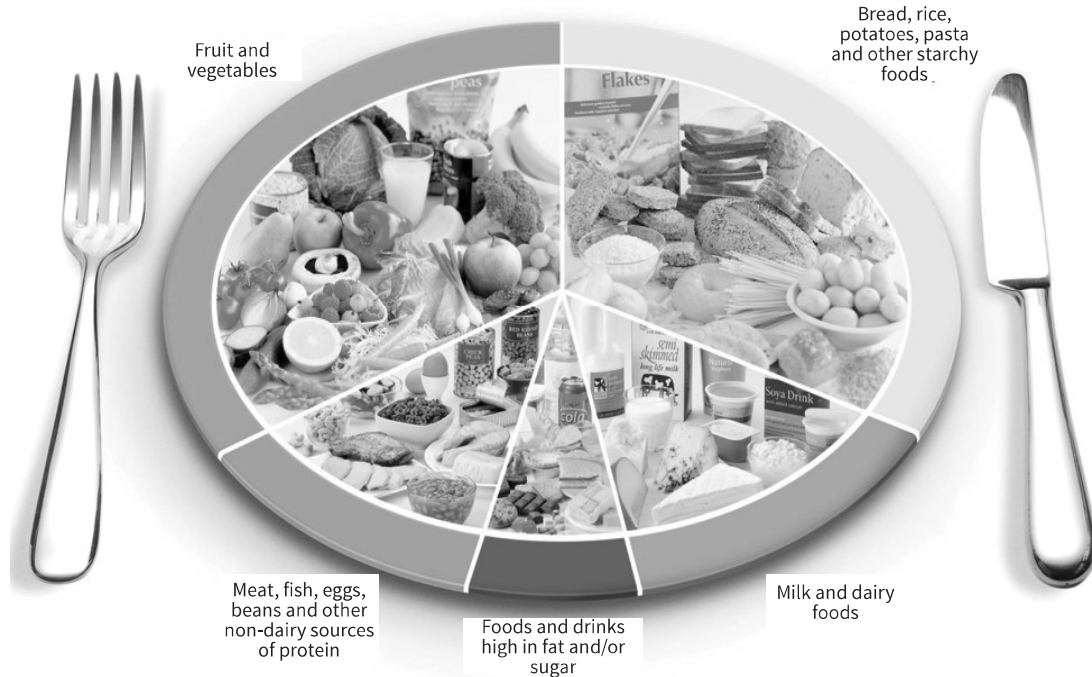
Module 1: The five basic food groups



Activity 1

Pages 8 and 9 in the textbook

1. Draw up a balanced menu for one day using the correct daily requirements of each of the basic food groups as shown below.



Model answers:

Students can use the above picture to compile their menu for one day i.e. breakfast, lunch and supper.

Menu

Breakfast

Strawberry yoghurt
Weet-bix with milk
Orange juice

Lunch

Tuna slaw on wholewheat bread
Fruit
Apple juice

Supper

Chicken schnitzel with mushroom sauce
Roast potatoes Green salad
Coffee

2. **Motivate why it is important to include the five basic food groups in your diet on a daily basis.**
 - A well-balanced diet includes food from each of the food groups daily.
 - The different food groups provide the body with different types of nutrients needed for the body to function.
 - Good nutrition is part of living a healthy lifestyle.
 - Food is fuel for the body and we need fuel for energy to help our body grow and repair itself and keep warm.
3. **What would the consequences be of not including certain food groups in your diet?**
 - If we do not get enough nutrient intake, we may suffer from a number of health issues.
4. **Make a poster/collage showing the food sources of the five basic food groups and add the portions required in the diet.**

Five basic food groups poster

Group 1: Protein and meat group



Portions required

Amount required per day: 2 portions

- Meat, raw, boneless – 90 g
- Fish, raw, boneless – 90 g
- Poultry, raw, boneless – 90 g
- Eggs – 1
- Cheese – 30 g

Group 2: Calcium and milk group



Group 3: Fruit and vegetables



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Portions required

Amount required per day:

- Children (2–9 years): 500 ml
- Adults – 400 ml per day
- Expectant mothers – 650 ml per day
- Nursing mothers – 650 ml per day

Portions required

Amount required per day:

Food rich in Vitamin C: 1 portion	<ul style="list-style-type: none"> • 1 orange • 1 naartjie • ½ grapefruit • 125 ml berries • 1 tomato
Food rich in Vitamin A: 1 portion	<ul style="list-style-type: none"> • 1 yellow peach • 125 ml carrots • 125 ml cooked pumpkin • ½ papaya
Other group: 2 portions	<ul style="list-style-type: none"> • 125 ml cauliflower • 1 apple • 125 ml turnip • 1 gem squash • 125 ml potato • 200 ml fruit

Group 4: Cereal group



Portions required

Amount required per day: 3 portions

- 40 g slice of bread
- 125 ml porridge
- 250 ml porridge
- 375 ml breakfast cereal

Group 5: Fats and oils/sugary foods



Portions required

Amount required per day: 1 portion

- 15 ml per day

5. Write down everything you ate yesterday including snacks. Analyse your food intake as follows:

5.1 Write out the food you ate into breakfast, lunch and dinner. Add the snacks with each if eaten close to that time.

Example:

Menu
Breakfast
All-Bran Flakes with milk Bran muffin Tea
Lunch
Cheese and tomato on wholewheat bread Apple Flake chocolate Lays chips Coffee
Supper
Roast chicken drumsticks Roast potatoes Broccoli Coffee

Conclusion: The portion of fats and oils/sugary foods is very high in the menu.

5.2 Which food groups were included and which were excluded from your food intake of yesterday.

Menu items	Food groups included
<ul style="list-style-type: none"> All-Bran Flakes with milk Bran muffin Tea Cheese and tomato on wholewheat bread Apple Flake chocolate Lays chips Roast chicken drumsticks Roast potatoes Broccoli Coffee 	<ul style="list-style-type: none"> Bread and cereals Calcium and milk group Fruit and vegetables Protein and meat group Fats and oils/sugary foods

Conclusion: The above menu eaten yesterday includes all five food groups.

5.3 Evaluate the portions you ate compared to the required amounts.

Menu items	Portion eaten	No. of portions	Required portion
All-Bran Flakes with milk	½ cup (125 ml) cereal, 100 ml milk		Bread and cereals (3 portions) 375 ml breakfast cereal = 1 portion Calcium and milk group 400 ml milk per day, including tea and coffee
Bran muffin	1	1 portion	
Wholewheat bread	2 slices of bread	1 portion	
Tea	1 cup, 50 ml milk		
Coffee	2 cups, 100 ml milk		
Cheese	1 slice of cheese	1 portion	30 g cheese = 1 portion
Tomato	2 slices of tomato		Vegetable and fruit (3 portions) 1 fruit = 1 portion 125 ml potato = 1 portion 125 ml broccoli = 1 portion 1 tomato = 1 portion
Apple	1	1 portion	
Roast potatoes	1 whole potato	1 portion	
Broccoli	100 ml	1 portion	
Roast chicken drumsticks	2 drumsticks	2 portions	Protein and meat group (2 portions) 90 g raw chicken = 1 portion
Flake chocolate	1	1 portion	Fats and oils/sugary foods (1 portion) 15 ml = 1 portion
Lays chips	1 packet	1 portion	
Conclusion:	Milk and dairy: 200 ml of milk	½ portion	400 ml of milk per day, including tea and coffee. Includes 250 ml of the required portion of 400 ml.
	Cereal: 125 ml, 1 bran muffin, wholewheat bread: 2 slices	3 portions	3 portions included, however, not all in the correct amounts e.g. cereal portion should be 375 ml.
	Fruit and vegetables: apple, tomato and potato	3 portions	3 out of the 4 portions per day included.

Menu items	Portion eaten	No. of portions	Required portion
	Protein and meat group: 2 chicken drumsticks	2 portions	Meets the required amount of 2 portions per day.
	Fats and oils/ sugary foods	2+ portions	Over the required amount.

5.4 Rewrite the menu and add foods that were omitted in red pen to show a more balanced menu.

Menu
Breakfast
All-Bran Flakes with milk
Fruit yoghurt
Tea
Lunch
Cheese and tomato on wholewheat bread
Apple
Orange juice
Supper
Roast chicken drumsticks
Roast potatoes Broccoli au gratin
Greek salad
Coffee

6. Draw a table with the five basic food groups as heading and place food sources under each. Tabulate as follows:

Protein and meat	Calcium and milk	Fruit and vegetables	Breads and cereals	Fats and oils
<ul style="list-style-type: none"> • Meat • Poultry • Fish • Seafood • Eggs • Legumes • Nuts • Soya beans 	<ul style="list-style-type: none"> • Fresh milk • Processed milk • Milk powders • Cheese • Evaporated milk • Condensed milk • Buttermilk • Cream 	<ul style="list-style-type: none"> • Citrus fruit • Guavas • Pineapples • Mangoes • Strawberries • Tomatoes • Green vegetables: broccoli, spinach, etc. • Yellow vegetables: butternut, pumpkin, etc. 	<ul style="list-style-type: none"> • White/brown/wholewheat/mealie bread • White/brown rice • Rice Crispies • Cake flour • Cornflakes • Weet-bix • Jungle Oats • Spaghetti, etc. 	<ul style="list-style-type: none"> • Lard • Suet • Dripping • Butter • Bacon • Sunflower oil • Margarine • Orley whip • Olive oil • Salad oil, etc.

7. List the functions in the body of each of the following nutrients:

7.1 Proteins	<ul style="list-style-type: none"> • Essential for general growth and muscle development. • Build, repair and maintain the body. • Prevent certain deficiency diseases. • Responsible for haemoglobin synthesis in red blood cells.
7.2 Calcium	<ul style="list-style-type: none"> • Builds strong bones and teeth. • Helps to clot the blood after injury. • Milk products contain riboflavin (Vitamin B), which helps with energy metabolism. • Required for the correct functioning of muscles and nerves.
7.3 Vitamin C	<ul style="list-style-type: none"> • Helps to hold tissue cells together and so helps prevent bruises and colds.
7.4 Vitamin A	<ul style="list-style-type: none"> • Aids in general health of the skin and mucous membranes. It is important for good eyesight.
7.5 Fats and oils	<ul style="list-style-type: none"> • An excellent energy source. • Protect vital organs of the body, e.g. kidneys. • Form an insulating layer beneath the skin to help preserve body heat. • Provide a source of fat-soluble vitamins because they act as a vehicle for the fat-soluble vitamins A, D, E and K. • Provide texture and flavour in food and help to make food more palatable. • Linoleic acid (a fatty acid) is found mostly in vegetable fats and it is essential for the normal growth in young children.

8. Explain in a paragraph what 'good' and 'bad' fats are.

The 'good fats' are the mono-unsaturated and poly-unsaturated fats like canola oil, olive oil, sunflower oil, and oils found in nuts and seeds, avocados and fish.

It is important to eat to eat some of these good fats each day as they provide the body with beneficial nutrients, such as vitamins and antioxidants as well as the essential Omega-6 and Omega-3 fatty acids.

'Bad fats' includes two types of fats namely saturated fat and trans fat. These fats have been identified as being harmful to the heart. Both saturated fat and trans fat should be avoided or eaten very sparingly.

Most of the foods that contain these types of fats are solid at room temperature, such as:

- butter
- margarine
- shortening
- beef or pork fat

Saturated fats: This type of fat is primarily animal-based, and is found in high-fat meats and dairy products.

Some typical sources of saturated fats include:

- fatty cuts of beef, pork, and lamb.
- dark chicken meat and poultry skin.
- high fat dairy foods (whole milk, butter, cheese, sour cream, ice cream)
- lard.

Excess saturated fat increases blood cholesterol levels which can increase the risk for heart disease and possibly type 2 diabetes.

Trans fats: Trans fats also known as trans fatty acids can raise your heart disease risk threefold higher than saturated fat intake.

Some typical sources of trans fats include:

- fried foods (French fries, doughnuts, deep-fried fast foods)
- margarine (stick and tub)
- vegetable shortening
- baked goods (cookies, cakes, pastries, pizza dough, pie crusts biscuits, etc.)
- processed snack foods (crackers, microwave popcorn)

9. Draw up a menu for a six-year-old using the five basic food groups in the correct quantities.

Menu

Breakfast

Strawberry pops and milk	<i>(breads and cereals, calcium and milk groups)</i>
Granadilla yoghurt	<i>(calcium and milk group)</i>
Apple juice	<i>(fruit and vegetable group)</i>

Lunch

Fish fingers and chips	<i>(protein and meat, fruit and vegetables, fats and oils groups)</i>
Orange segments	<i>(fruit and vegetables group)</i>
Strawberry milkshake	<i>(calcium and milk group)</i>

Supper

Macaroni cheese	<i>(breads and cereals, calcium and milk group)</i>
Apple juice	<i>(fruit and vegetable group)</i>

10. Evaluate the menu below with regard to the five basic food groups and motivate your answers.

Menu

Breakfast

Coffee and rusk

Lunch

Chopped salad:
tomato, cucumber, olives, Parmesan, croutons, avocado and salad dressing

Coffee

Supper

Butter chicken (chicken, real butter, tomato purée)

Rice	Yoghurt	Salad
Tea		

Menu items	Food groups included
<ul style="list-style-type: none"> • Rusk, croutons, rice • Salad: tomato, cucumber, avocado, olives • Yoghurt • Chicken • Salad dressing, butter 	<ul style="list-style-type: none"> • Bread and cereals • Fruit and vegetables • Calcium and milk group • Protein and meat group • Fats and oils/Sugary foods
<p>Conclusion: Each of the food groups is covered in the menu above.</p>	

Alternate menu for Question 10

Evaluate the menu below with regard to the five basic food groups and motivate your answers.

Menu		
Breakfast	Lunch	Supper
Cornflakes and milk	Cheese and tomato sandwich Coke	Lasagne Tea

Menu items	Food groups included
<ul style="list-style-type: none"> • Cornflakes, bread, pasta • Tomato • Milk, white sauce • Mince • Coke 	<ul style="list-style-type: none"> • Bread and cereals • Fruit and vegetables • Calcium and milk group • Protein and meat group • Fats and oils/Sugary foods
<p>Conclusion: Each of the food groups is covered in the menu above, however not in the correct amounts. The fruit and vegetable group is not sufficiently included in the menu i.e. 4 portions per day.</p>	