



INDIAN SCHOOL AL WADI AL KABIR

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| Class: VI | Department: SCIENCE 2020 -21 | Date: 30.04.2020 |
| Worksheet No.: 2 | Topic: Components of food | Note: A4 FILE FORMAT |
| NAME OF THE STUDENT: | CLASS & SEC: | ROLL NO. |

I. OBJECTIVE TYPE QUESTIONS:

- The essential components of food are called _____.
(i) fats (ii) **nutrients** (iii) minerals (iv) roughage
- Read the food items given below.
a) Wheat b) Ghee c) Iodised salt d) Spinach
Which of the above food items are 'energy giving foods'?
(i) a) and d) (ii) b) and d) (iii) **a) and b)** (iv) c) and d)
- The undigestible material present in food is known as
(i) **roughage** (ii) proteins (iii) vitamins (iv) water
- In which of the following diseases will you advise the intake of iodised salt?
(i) Beriberi (ii) **Goitre** (iii) Scurvy (iv) Rickets
- Which of the following is produced in our body when the skin is exposed to sunlight?
(i) **Vitamin D** (ii) Vitamin B (iii) Vitamin C (iv) Vitamin A
- Eating too much of fat rich food will lead to a condition called as _____.
(i) bone and teeth decay (ii) loss of vision (iii) weakness (iv) **obesity**
- _____ helps our body absorb nutrients from food.
(i) fats (ii) dietary fibres (iii) vitamins (iv) **water**

For question numbers 8 to 10, two statements are given- one labelled Assertion (A) and the other labelled Reason (R).

Select the correct answer to these questions from the codes (i), (ii), (iii) and (iv) as given below

i) Both A and R are true and R is correct explanation of the assertion.

ii) Both A and R are true but R is not the correct explanation of the assertion.

iii) A is true but R is false.

iv) A is false but R is true

8. Assertion (A): Avoid washing of vegetables and fruits after cutting and peeling.

Reason (R): It will lead to loss of some vitamins.

[i] Both A and R are true and R is correct explanation of the assertion.

9. Assertion (A): Growing children require more protein compared to others.

Reason (R): Proteins are obtained from both animal and plant sources.

[ii] Both A and R are true but R is not the correct explanation of the assertion.

10. Assertion (A): Bread slice when tested with iodine solution gives blue-black colour.

Reason (R): Blue black colour confirms the presence of fat.

[iii] A is true but R is false.

I. BASIC CONCEPTS LEVEL:

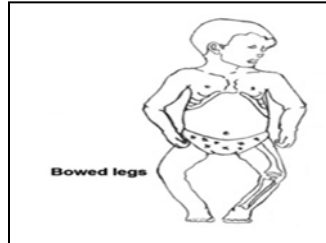
1. What are nutrients? Name the major nutrients present in the food. [The food we eat contains certain chemical substances called nutrients. The major nutrients present in our food are carbohydrates, fats, proteins, vitamins and minerals]
2. What do you understand by deficiency diseases? [Diseases caused due to the lack of one or more nutrients in the diet for a long time.]
3. Why are fats also called 'energy banks' of our body? [Fats provide more energy. The excess fats get stored in our body and will be broken down to release energy when needed.]
4. State few dietary sources of water. [milk, juices, watermelon]
5. Name two sources of each plant and animal fats. [plant sources-vegetable oil, nuts and animal sources-meat, butter]
6. What is roughage? Why is it necessary to include roughage containing food in our diet? [Roughage or dietary fibres is mainly provided by mainly by plant products. It does not provide any nutrient to our body, but is an essential component of our food. It adds bulk to our food. It helps our body to get rid of undigested food.]
7. What is a balanced diet? [The diet that contains all the different types of nutrients in correct amounts is termed as a **balanced diet**. Such a diet also includes enough water and roughage,]
8. Why do we consider proteins as the 'body building food'? [Proteins are required for making new cells. Thus, it helps in the growth of a person and also development of muscles.]
9. Name the major nutrients provided by the following food items:
a. Butter b. Chapatti c. Fish d. Sugar [Fats, Carbohydrates, Proteins, carbohydrates]
10. What do you understand by the term obesity? Why does it occur? [The condition caused due to the deposition of fats in our body is termed as obesity. It occurs due to the excessive intake of fatty foods. Obesity leads to weight gain.]

II. INTERMEDIATE LEVEL:

- In Africa, due to shortage of food, children do not get enough of protein and energy giving food. Explain the symptoms of the disease. [Person becomes very lean and thin and so weak that he/she may not even be able to move.]
- Give reasons:
 - Food should not be overcooked. [The essential nutrients like vitamin C will get destroyed on heating, Taste of the food will be affected.]
 - We should prefer consuming whole fruit instead of fruit juices. [Fruits contain dietary fibre whereas fruit juices do not contain fibres.]
 - An athlete is usually given glucose after a race. [Glucose provide instant energy.]
 - Our body will not function without sufficient water. [Water is essential for absorbing nutrients from the food and also helps in the removal of waste materials from our body in the form of urine and sweat.]
- Observe the figure A and B answer the following questions:



A



B

- Identify the disease the person is suffering from in A and B. [A-Goitre, B-Rickets]
 - The deficiency of which mineral/vitamin leads to this condition. [A-Iodine, B-Vitamin D]
 - What are the symptoms of the disease shown in A and B? [A-Glands in the neck appear swollen, mental disability in children, B- Bones become soft and bent]
 - Explain why people who eat sea food do not suffer from goitre. [Sea food is a rich source of iodine and prevents the occurrence of goitre.]
 - Ravi wants to know whether potato chips contains starch or not. How can he identify the starch content in his food item? [Take the food sample and add a few drops of iodine solution to it. If the colour changes to blue-black, we confirm that the given food sample is rich in starch.]
- Complete the blanks in the given table:

| SL NO | VITAMIN/MINERAL | DEFICIENCY DISEASE/DISORDER | SYMPTOMS |
|-------|-----------------|-----------------------------|--|
| a. | Vitamin A | Loss of vision | Poor vision, loss of vision in darkness. |
| b. | Iron | Anaemia | Weakness |
| c. | Vitamin D | Rickets | Bones become soft and bent |
| d. | Calcium | Bone and tooth decay | Weak bones, tooth decay |

5. Minerals and vitamins are needed in very small quantities compared to other nutrients. Yet they are important part of a balanced diet. Explain. [Protects our body from diseases, helps in growth and maintaining good health.]
6. Write the symptoms of disease caused due to the deficiency of proteins in the diet. [Stunted growth, swelling of face, discolouration of hair, skin diseases and diarrhoea.]
7. Dinesh kept few groundnuts in a paper and crushed it. After sometime he noticed an oily patch on the paper. Presence of which nutrient is responsible for the oily patch? [Fat]
8. Boojho was having difficulty in seeing things in dim light. The doctor tested his eyesight and prescribed a particular vitamin supplement. He also advised him to include a few food items in his diet.
 - a. Which deficiency disease is he suffering from? [Loss of vision/Night blindness]
 - b. Which nutrient may be lacking in his diet? [Vitamin A]
 - c. Suggest any two food items that he should include in his diet. [Carrot and papaya]

III.ADVANCED LEVEL:

1. A few sailors after sailing for a month in sea started suffering from bleeding gums. Which nutrient do you think was missing from their diet? Name the disease they are suffering from. [Vitamin C. Scurvy]
2. People of a particular region eat a diet of only polished rice. They were suffering from extreme tiredness and weak muscles. Name the disease. How can it be cured?[Beriberi, Supplementing Vitamin B]

IV. EXEMPLAR QUESTIONS:

1. Paheli and Boojho peeled some potatoes and cut them into small pieces. They washed and boiled them in water. They threw away the excess water and fried them in oil adding salt and spices. Although the potato dish tasted very good, its nutrient value was less. Suggest a method of cooking potatoes that will not lower the nutrients in them. [Consuming the potatoes with their skin provides extra dietary fibres and nutrients. Wash, cut and cook the potatoes. Cook the potatoes in a small amount of water and cover the lid and then fry in a small quantity of oil. This helps in conserving the nutrients.]
2. Paheli avoids eating vegetables but likes to eat biscuits, noodles and white bread. She frequently complains of stomachache and constipation. What are the food items that she should include in her diet to get rid of the problem? Give reason for your answer. [Paheli must include whole grains, whole pulses, fresh fruits and vegetables in her diet as she seems to lack roughage.]

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Checked by : HOD - SCIENCE