



SUBJECT:-Science

Class VI

CHAPTER:-COMPONENTS OF FOOD .

GUIDELINES:

Dear Students

- Refer to the following content of the chapter : Components of Food .
- These notes will help you understand the concept of the lesson.
- Do the assignment questions in the Science notebook.
- Watch the videos related to the subtopics for which the links have been provided to you for further clarification.
- In this lesson, let's study the various deficiency diseases , importance of roughage, water and balanced diet.
- You may follow the given link/PDF to refer to Class 6 ScienceNCERT/LIVING SCIENCE BOOK FOR THIS CHAPTER which is uploaded on the website.

<http://ncert.nic.in/textbook/textbook.htm?fesc1=2-16>

SUB TOPICS:

- **DEFICIENCY DISEASES**
- **OTHER COMPONENTS OF FOOD AND BALANCED DIET**

LET'S LEARN ABOUT DEFICIENCY DISEASES

One may be eating enough food but not necessarily the right type of food. If our diet does not contain appropriate amount of any of the nutrients, our body starts showing signs and symptoms of deficiencies. These deficiencies over a long period of time lead to *deficiency diseases*.

Deficiency diseases are the result of malfunctioning of the body due to lack of one or more nutrients in our diet. The table provided below shows some of the common deficiency diseases and their symptoms.

Vitamin/Mineral	Deficiency disease/disorder	Symptoms
Vitamin A	Loss of vision	Poor vision, loss of vision in darkness (night), sometimes complete loss of vision
Vitamin B1	Beriberi	Weak muscles and very little energy to work
Vitamin C	Scurvy	Bleeding gums, wounds take longer time to heal
Vitamin D	Rickets	Bones become soft and bent
Calcium	Bone and tooth decay	Weak bones, tooth decay
Iodine	Goiter	Glands in the neck appear swollen, mental disability in children
Iron	Anaemia	Weakness

Learn the above table and watch the video: <https://www.youtube.com/watch?v=OobtpVdqEDg>

OTHER COMPONENTS OF FOOD

Besides carbohydrates, fats, proteins, vitamins and minerals; roughage and water are also essential in our daily requirement for food.

Roughage



- ✚ We are often advised to include a lot of raw food, such as salad, in our diet and to eat fruits along with the peel.
- ✚ Plant food material contains a lot of fibre in the form of cellulose.
- ✚ This dietary fibre does not have any nutritional value for us. However, it is very essential for our body.
- ✚ The dietary fibre or roughage, as it is commonly called, adds bulk to the undigested food material. This helps in easy bowel movements and removal of undigested food. Thus, roughage helps in preventing constipation.
- ✚ Fresh fruits, vegetables, whole grains and pulses are foods rich in roughage or fibre.

Water

An indispensable part of our diet- water is not considered a nutrient, yet it is essential for our survival. About 70 percent of our body weight is water.

Water is important to us for several reasons.

- ✚ It helps our body in absorbing nutrients.
- ✚ It helps in transporting substances inside our body.
- ✚ It helps in the removal of waste from our body in the form of urine.
- ✚ It helps in regulating our body temperature, for example, through sweating.
- ✚ Our body loses water continuously in the form of sweat, urine and vapour (while breathing). Hence, we need to replenish our body with water otherwise it could lead to a condition called dehydration.
- ✚ It is recommended that one should drink about 6–8 glasses of water every day. Other sources of water include fruits, vegetables, milk and juices. Water is also added to our food while cooking.

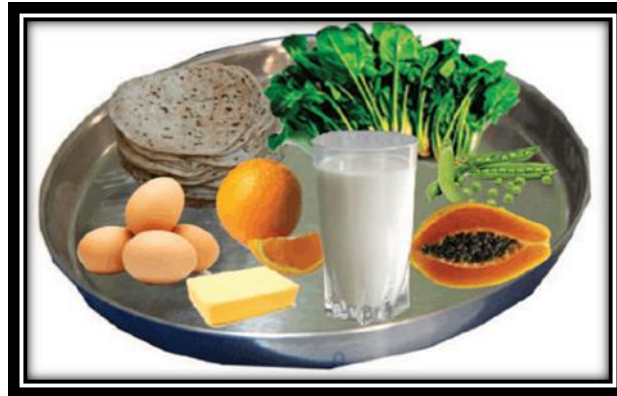


Attempt these Questions orally:

1. Which one of the following food items does not provide dietary fibre?

Whole grains, Whole pulses, fruits, vegetables and milk

2. Observe the items given in the figure given below carefully and answer the questions that follow.



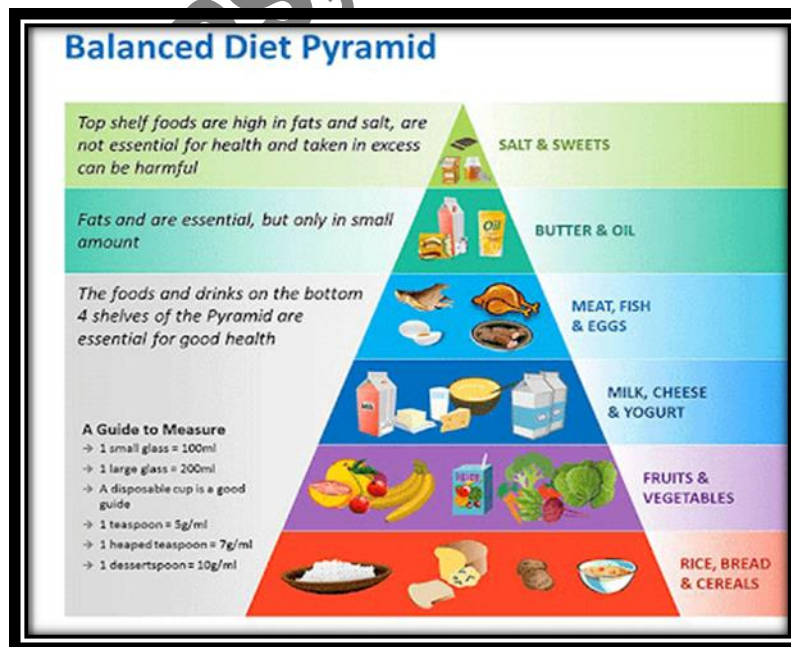
- ✓ Food item rich in carbohydrates is _____.
- ✓ Egg is a rich source of protein and vitamin _____.
- ✓ _____ is a rich source of fat.
- ✓ Milk provides _____ vitamin D and _____ (mineral).
- ✓ _____ (fruit) is a rich source of vitamin A.
- ✓ Spinach is a good source of the mineral _____.
- ✓ Both eggs and _____ are rich in _____.

Diet

The food which we eat during the whole day is called our **diet**.

Balanced Diet

The diet which contains adequate amount of all nutrients such as carbohydrates, fats, proteins, vitamins, minerals is called a **balanced diet**.



A balanced diet also contains sufficient amount of water and roughage.

- ✓ No single food item can provide us all the essential nutrients in adequate amount.
 - ✓ In order to make a balanced diet, we should include a number of different food items in our daily meals which taken together, provide us all nutrients in adequate amount.
 - ✓ A balanced diet depends on the age of the person and also on the occupation of the person.
 - ✓ Remember that in addition to making sure that the right amount of food is eaten,
- **It should also be ensured that food is properly cooked so that it does not end up losing its nutrients.**
 - **Repeated washing of fruits, pulses, rice and vegetables can result in the loss of essential vitamins and minerals.**
 - **Throwing away excess water which is used for cooking vegetables can result in the loss of considerable amount of important proteins and minerals present in them.**
 - **It's a well-known fact that vitamin C gets destroyed in the heat while cooking.**

Watch this video and try to plan a LUNCH menu for a balanced diet and analyse whether your diet plan qualifies to be a balanced one.

<https://www.youtube.com/watch?v=9VtxCxtsMAI>

Now, attempt following questions in your notebook:

ASSIGNMENT

- Q1. Define the terms: diet and balanced diet.
- Q2. How does the balanced diet of a man doing hard physical labour differ from another man doing a desk job?
- Q3. Why does a labourer need more carbohydrate in his diet than a normal man?
- Q4. State pre-cooking practices which lead to the loss of nutrients in food materials.
- Q5. Samarth's mother was always concerned about his diet. She tried very hard to make it balanced. But Samarth is very fond of junk food. He does not eat green vegetables, pulses etc., regularly. What kind of meal will you plan for such a child?

Q6. Ronit 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?
- b) Which food component may be lacking in his diet?
- c) Suggest some food items that he should include in his diet. (any four)

Q7. Give reasons for the following:

- a) Roughage does not give any nutrition but is considered an important component of food.
- b) Eating yellowish orange coloured fruits and vegetables is good for us.
- c) Excess of fats in our diet is not good for health.
- d) Peeled vegetables and fruits should not be washed repeatedly after cutting.

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