

From the session 2023-24, the textbooks are rationalised under the new National Education Policy 2020. This **Sanjiv Refresher** is completely based on the new rationalised textbook.

# Sanjiv Refresher

# Science

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Class VI


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# Syllabus

No.	Chapter/Unit	Objectives
1.	Components of Food	Learn about components, sources and significance for human health; balanced diet; diseases and disabilities due to food deficiencies.
2.	Sorting Materials into Groups	Learn to Group things on the basis of common properties.
3.	Separation of Substances	Separating mixture by various processes.
4.	Getting to Know Plants	Understand Morphological structure and functions of plant parts.
5.	Body Movements	Understand Human skeletal system.
6.	The Living Organisms – Characteristics and Habitats	Study of Living/non-living organisms characteristics; habitat; biotic, abiotic.
7.	Motion and Measurement of Distances	Understand Measuring lengths and distances and Observation of different types of moving objects.
8.	Light, Shadows and Reflections	Understand the Classification of various materials in terms of transparent, translucent and opaque.
9.	Electricity and Circuits	Understanding the features and functioning of electric current and circuits.
10.	Fun with Magnets	Learn about characteristics of magnets and activities.
11.	Air Around Us	Learn characteristics and importance of air.

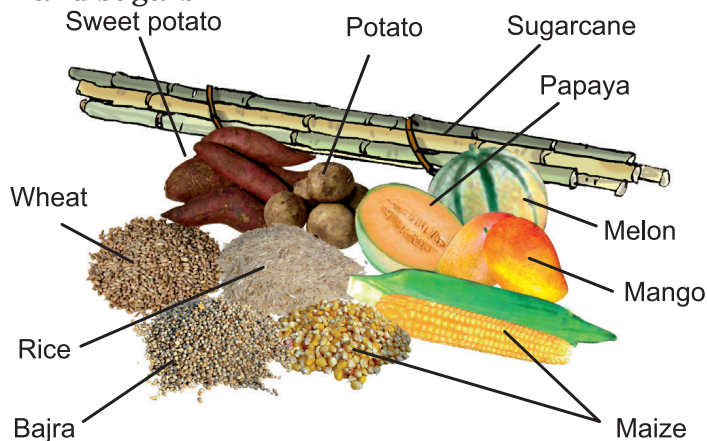
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# Components of Food

## Summary

- Each dish is usually made up of one or more ingredients, which we get from plants or animals. These ingredients contain some components that are needed by our body. These components are called nutrients.
- The major nutrients in our food are named carbohydrates, proteins, fats, vitamins and minerals. In addition, food contains dietary fibres and water which are also needed by our body.
- The main carbohydrates found in our food are in the form of starch and sugars.



**Fig. : Some sources of carbohydrates**

- In fact, fats give much more energy as compared to the same amount of carbohydrates. Foods containing fats and carbohydrates are also called 'energy giving foods'.



**Fig. : Some sources of fats**

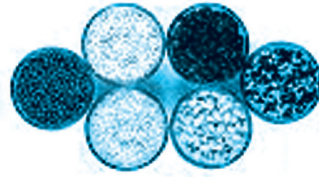
- Proteins are needed for the growth and repair of our body. Foods proteins are often called 'body building foods'.



Eggs



Meat



Pulses



Milk and milk products



Fish

**Fig. : Some sources of proteins**

- Vitamins help in protecting our body against diseases. Vitamins also help in keeping our eyes, bones, teeth and gums healthy.
- Vitamins are of different kinds known by different names. Some of these are Vitamin A, Vitamin C, Vitamin D, Vitamin E and K. There is also a group of vitamins called Vitamin B-complex.
- Our body needs all types of vitamins in small quantities.
- Vitamin A keeps our skin and eyes healthy. Vitamin C helps body to fight against many diseases. Vitamin D helps our body to use calcium for bones and teeth.
- Minerals are needed by our body in small amounts. Each one is essential for proper growth of body and to maintain good health.
- In a given raw material, one particular nutrient may be present in much larger quantity than in others. For example, rice has more carbohydrates than other nutrients. Thus, we say that rice is a "carbohydrate rich" source of food.
- Besides these nutrients, our body needs dietary fibres and water. Dietary fibres are also known as roughage.

- Roughage is mainly provided by plant products in our foods. Whole grains and pulses, potatoes, fresh fruits and vegetables are main sources of roughage.
- Roughage does not provide any nutrient to our body, but is an essential component of our food and adds to its bulk. This helps our body get rid of undigested food.
- Water helps our body to absorb nutrients from food. It also helps in throwing out some wastes from body as urine and sweat.
- Many food materials themselves contain water. To some extent, our body needs are met by this water. Apart from this, we also add water while cooking many food items.
- Balanced diet provides all the nutrients that our body needs, in right quantities, along with adequate amount of roughage and water.
- One can eat a balanced diet without expensive food materials.
- Eating the right kind of food is not enough. It should also be cooked properly so that its nutrients are not lost.
- If the vegetables and fruits are washed after cutting or peeling them, it may result in the loss of some vitamins. The skins of many vegetables and fruits contain vitamins and minerals.
- Many useful proteins and considerable amounts of minerals are lost if excess water is used during cooking and is then thrown away.
- Vitamin C gets easily destroyed by heat during cooking.
- It can be very harmful for us to eat too much of fat rich foods and we may end up suffering from a condition called obesity.
- A person may be getting enough food to eat, but sometimes the food may not contain a particular nutrient. If this continues over a long period of time, the person may suffer from its deficiency.
- Deficiency of one or more nutrients can cause diseases or disorders in our body. Diseases that occur due to lack of nutrients over a long period are called deficiency diseases.
- If a person does not get enough proteins in his/her food for a long time, he/she is likely to have stunted growth, swelling of face, discolouration of hair, skin diseases and diarrhoea.
- If the diet is deficient in both carbohydrates and proteins for a long period of time, the growth may stop completely.
- All deficiency diseases can be prevented by taking a balanced diet.

**Table : Some diseases/disorders causes by deficiency of vitamins and minerals**

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	Goitre	Glands in the neck appear swollen, mental disability in children
Iron	Anaemia	Weakness



### KEY TERMS AND DEFINITIONS

- **Balanced diet** : Balanced diet is a diet which contains all the nutrients in proper amount along with adequate amount of roughage and water.
- **Beriberi** : It is the disease caused by deficiency of vitamin B1. It affects the nerves and causes pain, weakness and sometimes heart failure.
- **Carbohydrates** : It is the substance that provides energy to our body.
- **Energy** : Energy is the capacity to do work. Energy enables us to do our daily activities.
- **Fats** : Fats act as fuel to our body. They provides us instant energy.
- **Minerals** : Minerals are required by our body in small quantities for maintaining good health. They also helps in the growth and development of our body.
- **Proteins** : They are known as body building food. They are required for proper functioning of our body.