

Lecture Sheet: 01 Bíology (Chapter-13: Food and Nutrítíon) Class: VIII

Food:

Any nutritious substance that people or animals eat or drink or that plant absorb in order to maintain life and growth is called **food**.

Nutrition:

The process of taking in food and using it for growth, metabolism, and repair is called **nutrition**.

- The process in which, food, having eaten is digested and complex food staff is broken up into simple elements is called nutrition.
- Nutritional stages are ingestion, digestion, absorption, transport, assimilation, and excretion.

Nutrition elements:

The nutrition elements mean the valuable elements of dietary foods which ensures energy and appropriate growth of the body, enhances merit and intelligence, quick recovery from illness and make human beings active.

Nutrition value:

• The food value of any food depends on the amount and type of elements present in food.

Boiled rice contains 79% carbohydrates and 6% lipids. Besides, it contains a minute amount of proteins, vitamins and mineral salts.

Q. Why is rice called carbohydrate?

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- In order to know the nutrition value of any food we need to know the nature of the food. The nature of food means whether it is a mixed food or pure one.
- In a mixed food more than one nutrition elements are present.

Q. Why is egg mixed food?

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In a pure food only one element is found.Q. Why is glucose pure food?

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Depending on the principal of ingredients foods are divided into three classes. Such as—

- 1) Protein: For growth and repair
- 2) Carbohydrates: Helps in producing energy
- 3) Fat and oils: Produces heat and energy
- Q. Which food element do you take much in amount and why?

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Besides these three more kinds of components are essential for the body. Such as-

- 1) Vitamins: Increases energy for the protection against the diseases enhances the chemical reaction.
- 2) Minerals: Takes part in various organic functions.
- **3) Water**: Keeps the balance of water and temperature. Regulates the cell activity and contains the organelles.

Q. Why is it important to take vitamin daily?

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Main three types of foods:

Food element	Composition	Types	Sources	Functions
Protein	Carbon, hydrogen, oxygen and	Animal protein	Fish, meat, eggs, cheese, posset, liver	Repair and build body's tissues, allows metabolic reactions to take place and co-ordinates bodily functions
(Absorbed by the body as amino acid)	nitrogen <u>Additional:</u> Sulphur, phosphorous and iron	Plant protein	Pulses (dal), nuts, bean seeds	
Carbohydrates (Absorbed by the body as glucose)	Carbon, hydrogen and oxygen	Mono-saccharide	Honey, fruit juice	Provide energy, store energy and build macromolecules
		Di-saccharide	Sugar, milk	
		Poly-saccharide	Rice, wheat, potato, green leaf and vegetables	
Fats (Absorbed by the body as fatty acid)	Carbon, hydrogen and oxygen	Vegetable fat	Soya bean, mustard, nuts, sunflower, corn oils	Produces heat and energy structural component and carrier of vitamins
		Animal fat	Ghee, dalda, egg yolk	

Q. Why is protein considered as an important food element?