

## Sources of food

### भोजन के स्रोत

- Living things need energy to grow and perform various activities.
- Living thing get energy from food that they eat.

### Important functions of food:-

- ① Energy to work and play
- ② nutrients for the growth of our body
- ③ nutrients for the maintenance and repair of the body cells and tissues.
- ④ Protection from diseases to keep us fit and healthy.

Food ingredients → The raw materials needed to prepare food items are called ingredients.

Ex → To cook a rice at home we take raw rice and boil them in water thus rice and water are two ingredients of boiled rice.

18th April

## Sources of food

- We get fruits and vegetables from plants. We get rice from plants.
- Food items like milk, eggs and meat ~~are~~ we get from animals.

### Sources of food

↓  
Plant

↓  
Animals

- The green plants prepare their own food from carbon dioxide, water and chlorophyll in the presence of sunlight. Thus, green plants are known as producers.

- Plants prepare more food than they actually require.
- They store the extra food in their different body parts.
- These stored food materials of plants are used by us as food.

- ① Lettuce - शहज  
 ② cumin → जीरा  
 ③ Kidney beans - राजमा

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STUDY BUDDIES

→ We get the major part of our food from the green plants. We get grains, cereals, pulses, vegetables, fruits, spices, oil, sugar and beverages like tea and coffee from plants.

→ Various parts of plants such as roots, stems, leaves, flowers, fruits and seeds are used as food by us.

→ The parts of the plant that can be eaten are called edible parts.

~~Table~~ 20/4/20

S.No.	Edible parts	Plants
1	Roots	Carrot, turnip, radish, sweet potato (turnip)
2	Stems	Sugar cane, onion, ginger, potato
3	Leaves	Mint, Spinach, Cabbage, lettuce * ①
4	Flowers	Cauliflower, banana flower, broccoli, pumpkin flower
5	Fruits	Apple, guava, mango, grapes
6	Vegetables	beans, cucumber, brinjal, peas
7	Seeds	Wheat, rice, kidney beans ③ * cumin ② *
8	Nuts	Cashew nuts, almonds, walnuts, ground nuts.

\* Some plants have two or more edible parts. ex → seeds of the mustard plant give us oil and leaves of the plant are used as vegetable.

SNO.	plants	Edible Parts of a plant
1.	Mustard	Seeds, Leaves
2.	Banana	Stems, flowers, fruits
3.	Radish	roots, leaves
4.	Methi (Fenugreek)	Seeds, leaves, stems

- We eat mushroom due to their good taste and health benefits.
- Mushrooms are neither plants nor animals. They are placed in a separate category 'fungi'.
- There are some mushrooms which are non-edible also.
- The mushrooms that grow on their own could be non-edible or poisonous.

## Food from Animals

We get food items like milk, eggs, meat and honey from animals.

① Milk → We get milk from cows, buffaloes and goats. Milk is used to prepare butter, cheese, ghee, curd, ice cream etc.

② Eggs → We get eggs from hens, turkeys and ducks.

Eggs are a rich source of proteins and vitamins.

③ Meat → We get meat (source of protein) from hens, ducks, goats and fish.

④ Honey :- We get honey from honey bees. It is a tasty ~~and~~ nutritious food item and is used to make ayurvedic medicines.

⑤ Honey bees collect nectar (a sweet juice) from ~~the~~ flowers and convert it into honey and store it in their hives.

The rearing of honey bees on a large scale is called apiculture. Honeybees are kept in apiaries for rearing.

27/4/20

27/4/2020

→ Animals have different food habits. Some eat only plants, some eat only flesh of animals and some eat both. On the basis of their food habits, we classify animals into herbivores, carnivores and omnivores.

Herbivores → Animals that eat only plants and plant products are called herbivores or herbivorous animals. Cows, goats, rabbits, sheep and deer are some examples of herbivores.

Carnivores → Animals that eat only the flesh of other animals are called carnivores.

or Carnivorous animals.

exa. → Lions, tigers, eagles and Wolves are Carnivores.

~~Exa~~

Omnivores → Animals that eat both the plant products and flesh of other animals are called omnivores or omnivorous animals.

Exa → Humans, bears, rats, Crows and ~~cockroaches~~ cockroaches.

28/4/19

\* Food → Living things need energy to grow and perform various activities.

\* Important functions of food -

- ① Energy to work and play
- ② nutrients for the growth of our body.
- ③ Protect from diseases.

Food ingredients - The raw material needed to prepare food items

are called ingredients

## Sources of food

↓  
Plant

grains, cereals, pulses  
vegetables, fruits, spices, oil  
sugar, tea, coffee

↓  
Animal

Milk, Meat  
egg, Honey

→ Green plants are called producers because they make their own food by photosynthesis.

→ Edible parts of plant - The parts of a plant that can be eaten are called edible parts like roots, stem, leaf, seeds, flowers, nuts.

→ Apiculture - The rearing of honey bees on a large scale is called apiculture.



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STUDY BUDDIES

→ apiaries → Honey bees are kept in for rearing

5<sup>th</sup> may

~~Animals~~ animals eat →

S.No.	Animal	food items they eat
1.	Dog.	milk, bread, chapati, meat
2.	cat	milk, bread chapati, meat
3.	Squirrel	Seeds, nuts, fruits small insects
4.	Pigeon	corns, wheat, cereals, seeds
5.	Lizards	insects
6.	Cockroach	Sweets, floury foods etc.
7.	Horse	grass, hay, grains
8.	Cow	grass, hay, grains . oil cake.

\* hay → चारा (घास)

\* Different animals have different food habits

→ ON the basis of their food habits we classify animals into

Herbivores, Carnivores and Omnivores

hyenas → खसबोस    bug → बिस्ट  
Jackals → खिचर    leech → खिच  
fleas → फुल

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STUDY B

(I) ~~Hyenas~~

~~Hyenas~~ →

12<sup>th</sup> May

Parasites → Animals that live on or inside the body of other living animals or plants (host) and obtain food ~~from~~ from them are called Parasites.

→ Ex → Fleas, leeches, and bugs are some examples of Parasites that live outside the body of other animals.

→ Some parasites like roundworms and tapeworms live inside the bodies of other animals. These parasites absorb the food digested by the host.

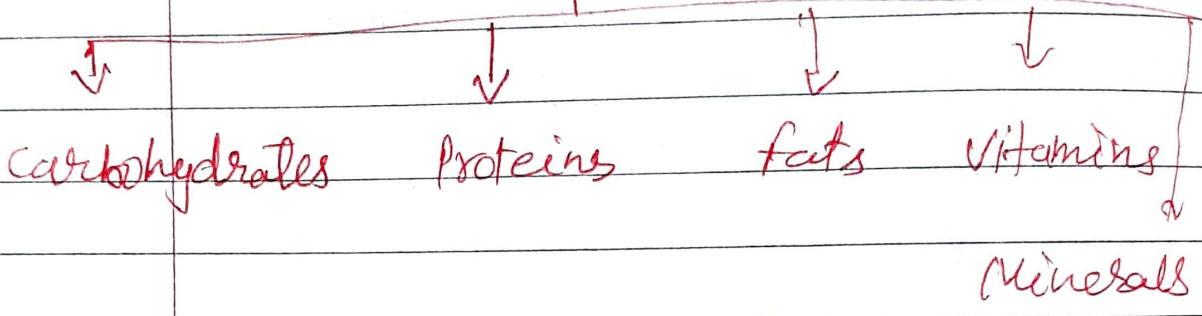
Scavengers → Some animals and birds eat the flesh of dead animals. Such animals are called Scavengers.

Ex - Jackal, hyenas and Vulture

Decomposers → Some living organisms in nature, like fungi and bacteria feed on dead plants and animals and decompose them. These organisms are called decomposers.

# Components of food

## Components of food



These components of food are called nutrients and are necessary for our body. Food also contains dietary fibres and water which are also needed by our body.

All food items do not contain all these nutrients.

With some simple methods we can test whether cooked food or a raw ~~ingr~~ ingredient contains one or more of these nutrients.

Test for starch (Carbohydrate)

→ Take a small quantity of a food item or a raw ingredient put 2-3 drops of dilute iodine solution on it, observe & if there is any change in the colour of the food items. If we found blue black colour then it indicates that it contains starch.

### Test for protein

Take a small quantity of a food item for testing. Put small quantity of food in a clean test tube add 10 drops of water to it and shake the test tube. Now add 10 drops of solution of copper sulphate and 10 drops of solution of caustic soda to the test tube. Shake well. observe after some time. If contents of test tube turn violet it indicates presence of proteins in the food item.

Test for fats: Take a small

quantity of a food item ~~to~~ wrap it in a piece of paper and crush it. Now ~~straighten~~ straighten the paper and observe it. If it have an oily patches. then it shows that food item contains fat. If no oily patch shows up then it show that food item does not contain any fat.

Work of Various Nutrients for our body.

- fats and carbohydrates are energy giving food.
- fat give much more ~~energy~~ energy than carbohydrates.
- proteins are body building foods.
- vitamins help in protecting our body against diseases
- vitamins also help in keeping our

eyes, bones, teeth and gums healthy.

→ Vitamin A → keeps our skin and eyes healthy

Vitamin C → helps body to fight against diseases.

Vitamin D → helps our body to use calcium for bones and teeth.

\* Minerals - Minerals are needed by our in small amounts. Each one is essential for growth of body and to maintain good health.

Sources of ~~the~~ minerals are

I → Ginger, Fish, Salt

P → Milk, Banana

Fe (Iron) → Apple, green vegetables

Ca → Milk, egg

\* Dietary fibres - our body needs dietary fibres. also know as roughage. provided by mainly plant products like whole grains and pulses, potatoes, fresh fruits. Roughage does not provide any nutrient to our body.

but it is 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.

Water — water, tea, milk.

Balanced diet.— The diet which contains all the food components like Carbohydrates, fats, proteins, vitamins, roughages, minerals and water in good amount not too much and not too little.

Eating the right kind of food is not enough. It should also be cooked properly so that its nutrients are not lost.



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. Repeated washing of rice and ~~minerals~~ pulses may remove some vitamins and minerals present in them.

~~Obesity~~  
Obesity → eating too much of fat rich foods and we may end up suffering from a condition obesity.

Deficiency Diseases → Diseases that occur due to lack of nutrients over a long period are called deficiency disease.

Protein → Swelling of face, discoloration of hair, skin diseases and diarrhoea.

Protein and Carbohydrates → Growth may stop completely, weakness, not able to move.