

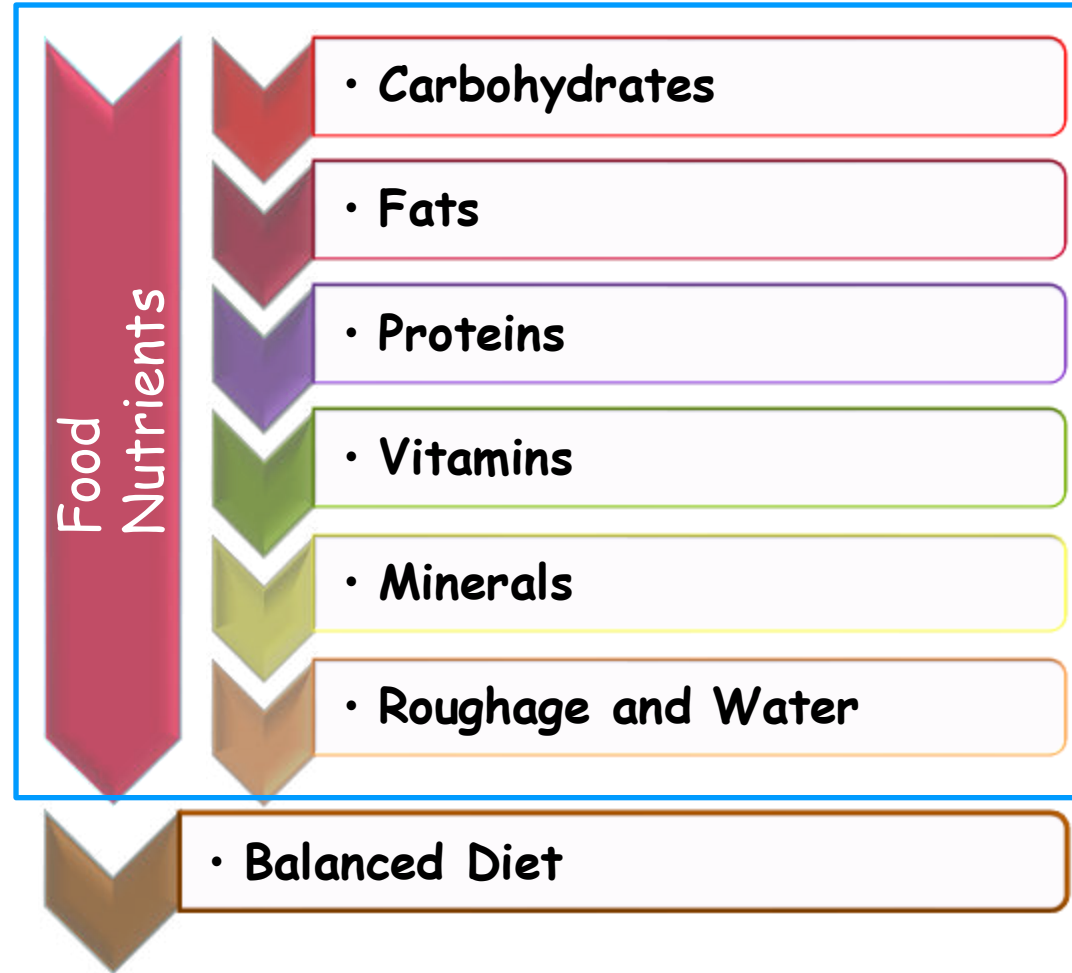
Bhavan Vidyalaya, Chandigarh
Science

Food and Nutrition

By :-

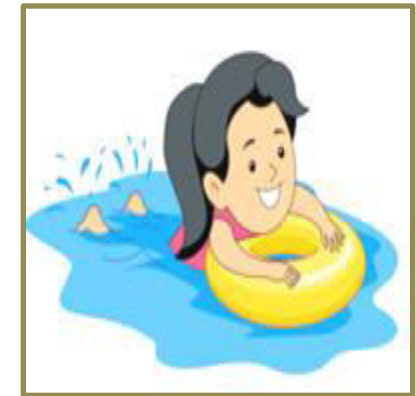
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Food : What will we learn?



Necessity of Food

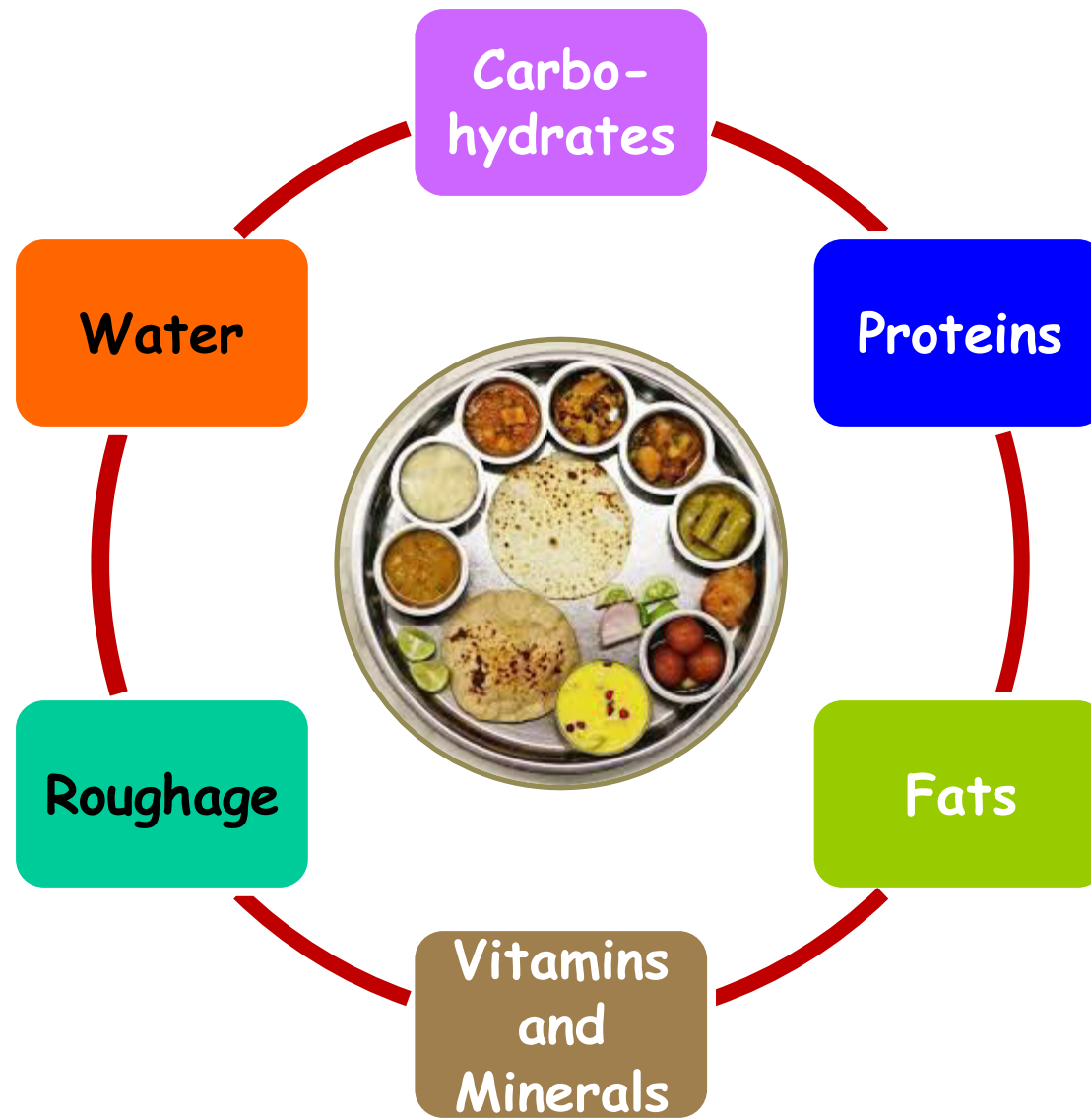
- ❖ We need **Energy** to do various day-today activities such as walking, studying, playing, cycling etc.
- ❖ Food gives us the energy to do all such activities.
- ❖ We also need food for **growth and re-generation**.



Food Nutrients

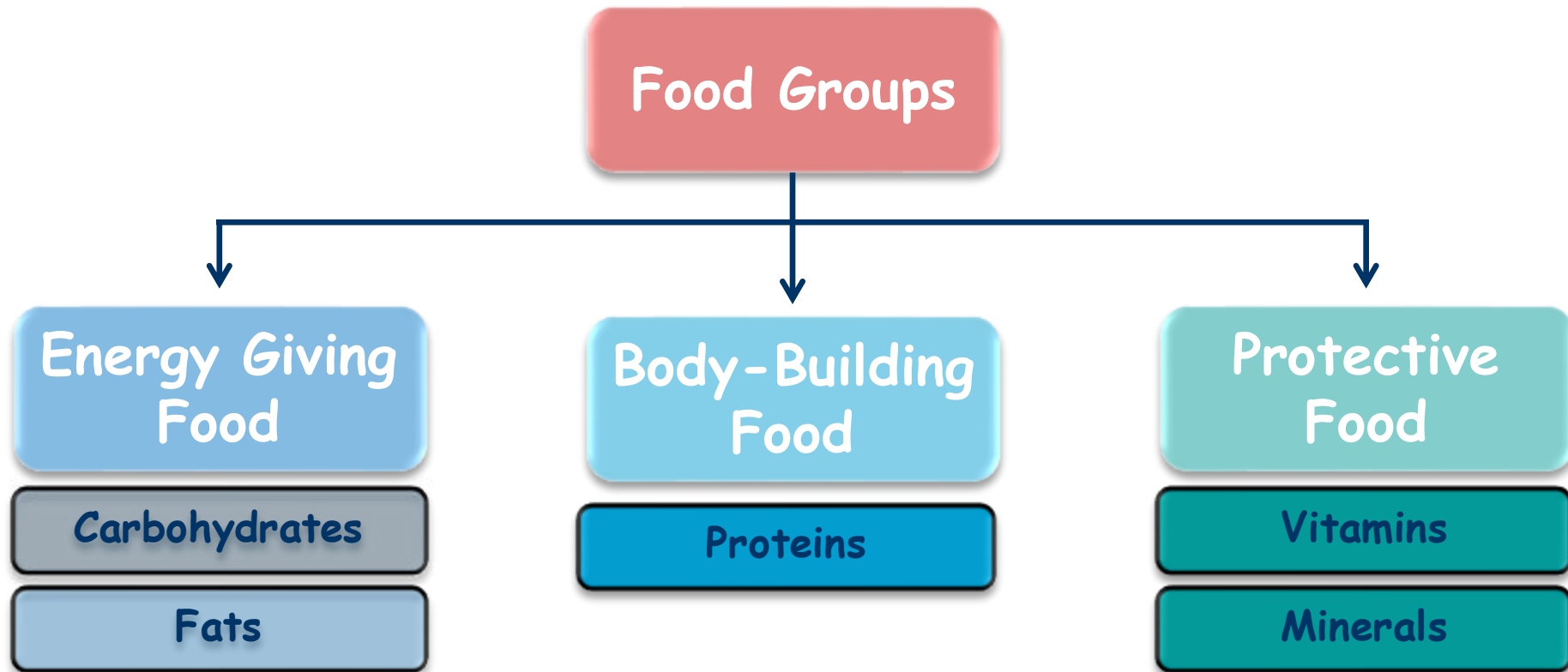
- ❖ Substances in food that help the body to grow and stay healthy are called **Nutrients**.
- ❖ Main nutrients found in food are:-
 - ❖ Carbohydrates.
 - ❖ Proteins.
 - ❖ Fats.
 - ❖ Vitamins.
 - ❖ Minerals.
- ❖ In addition, food has Roughage and Water.

Food Nutrients

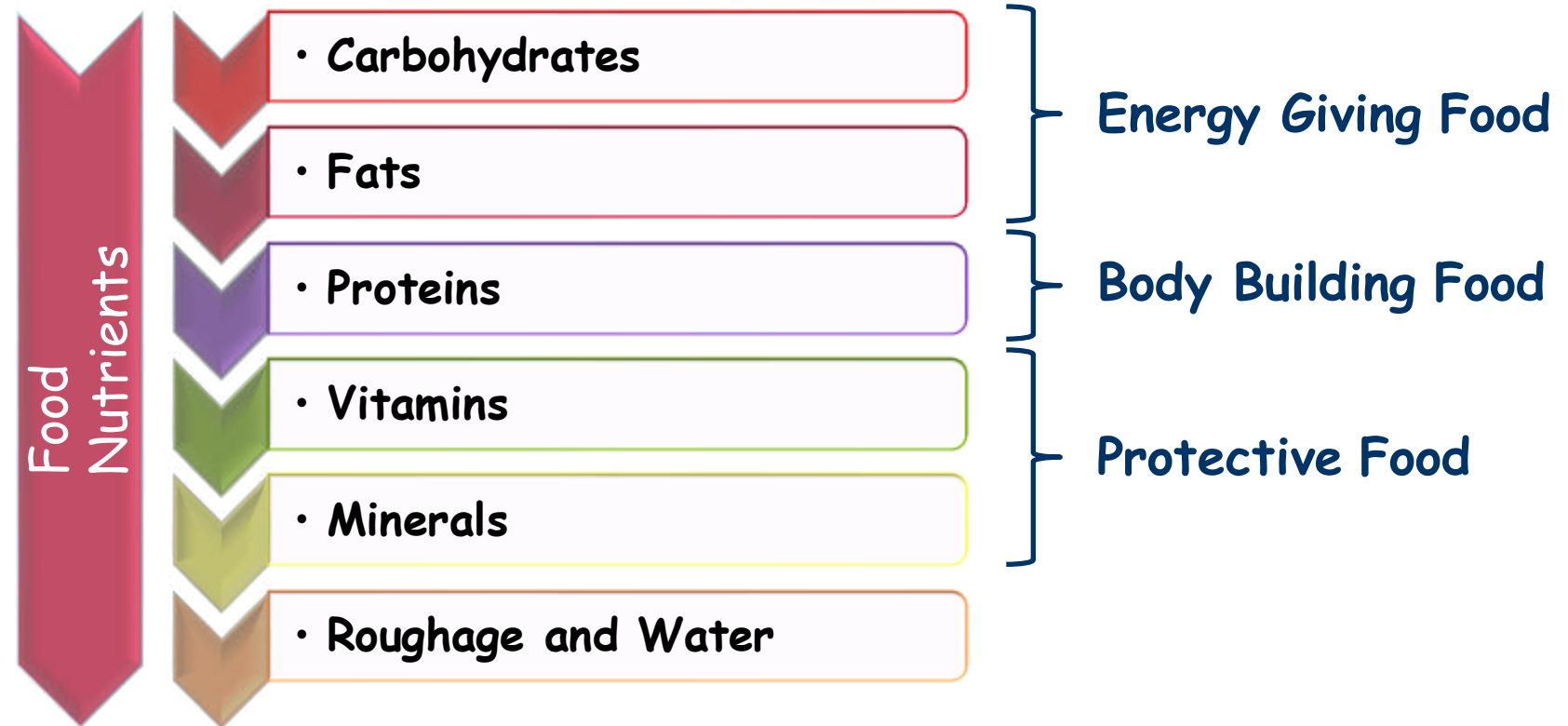


Food Groups

- ❖ Based on what nutrients the food contains, they are grouped in three food Groups:-

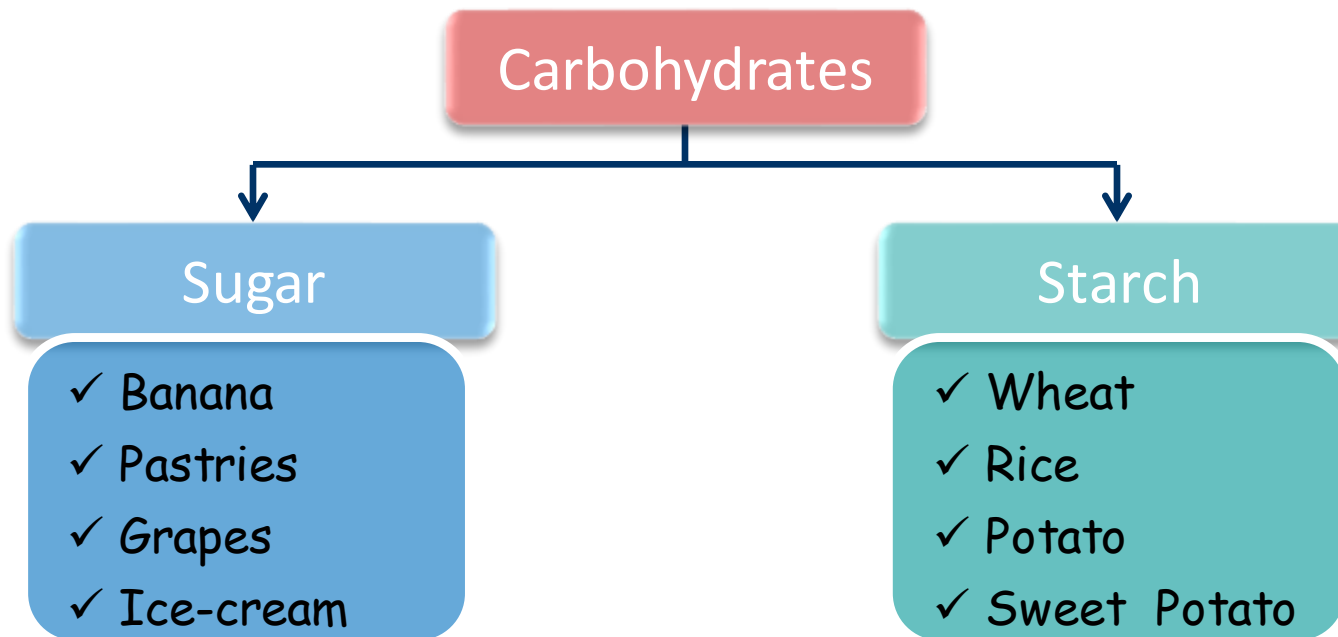


Food Groups



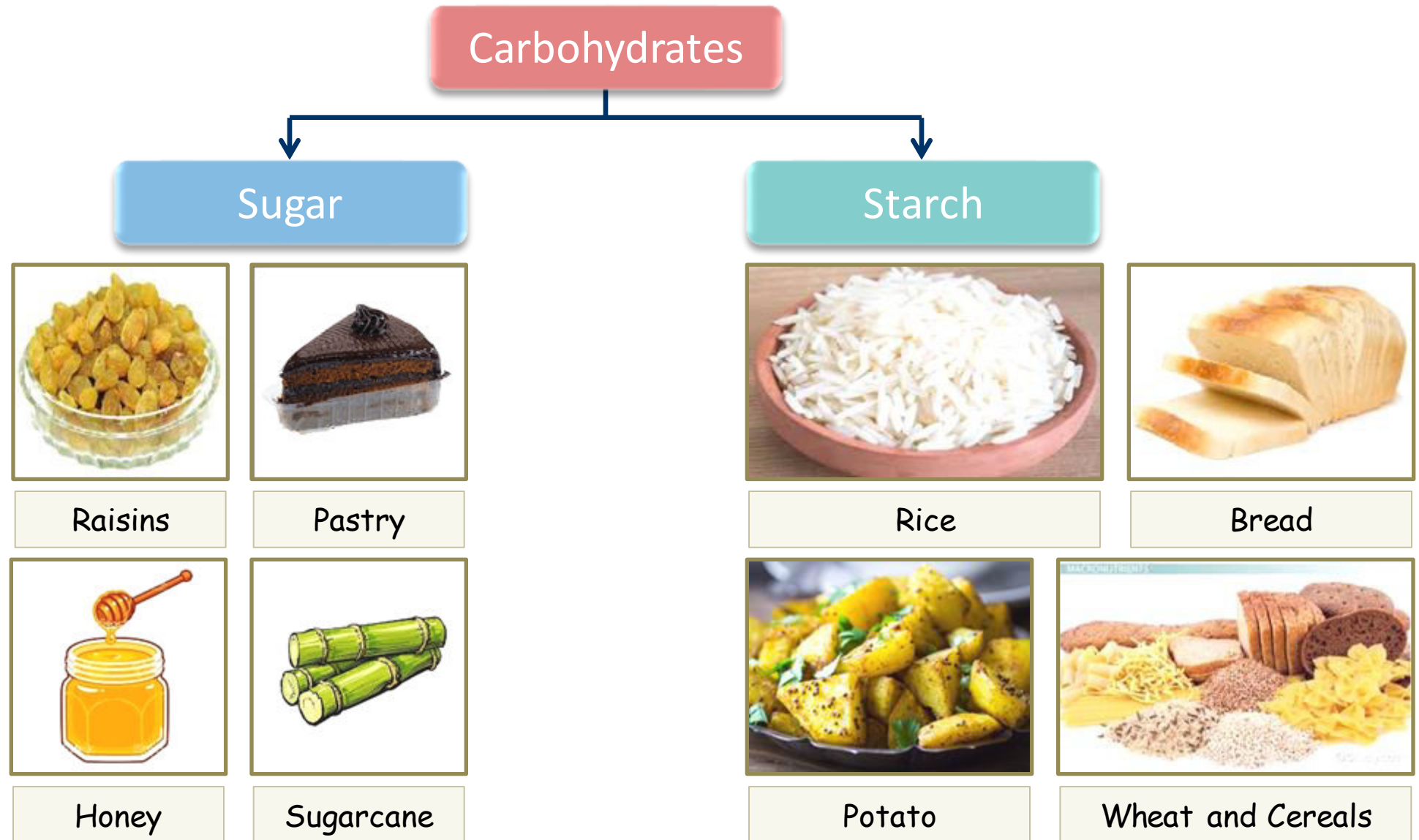
Carbohydrates

- ❖ These are Energy giving food.
- ❖ There are two types of Carbohydrates:-



- ❖ People who do more physical work need more energy giving food.
- ❖ Athletes, labourers etc need more carbohydrates.

Carbohydrates



Fats

- ❖ These are Energy-giving food.
- ❖ These provide more energy than Carbohydrates.
- ❖ Our body need fats in very small amount.
- ❖ Foods rich in Fats are Oil, Butter, Ghee, Cream, Cheese, Paneer, Nuts etc.



Oil



Cream



Ghee



Butter



Cheese



Paneer

- ❖ Excess fat causes disease in the body known as **Obesity**.

Proteins

- ❖ These are Body-building food.
- ❖ These help in the growth of the body and repair of worn out tissues.
- ❖ Growing children and Body builders need more Proteins.
- ❖ Foods rich in Protein are Milk, Cheese, egg, fish, meat and pulses.



} Veg Food



} Non-Veg Food

- ❖ Lack of Protein in the diet causes a disease called **Kwashiorkor**.

Vitamins and Minerals

Vitamins

- ❖ These are Protective food.
- ❖ These help us to stay healthy and protect us from diseases.
- ❖ Our body need Vitamins in very small quantities.
- ❖ Foods rich in Vitamins are Fresh fruits, Leafy vegetables, cereals and milk.



Leafy Vegetables



Fresh Fruits



Cereals



Milk

Vitamins and Minerals

Minerals

- ❖ These are Protective food.
- ❖ These help us to stay healthy and protect us from diseases.
- ❖ Our body need Minerals in very small quantities.

Calcium

- ❖ Makes bones and teeth strong.
- ❖ It is found in Milk, Curd and Nuts.



Milk



Curd



Nuts

Iron

- ❖ It is essential for rich blood.
- ❖ Lack of Iron makes us feel tired and weak.
- ❖ Found in Green leafy vegetables, Apples etc.



Vegetables



Apples



Eggs

Roughage and Water

Roughage

- ❖ It is the fibre present in green vegetables, fruits and cereals.
- ❖ It cannot be digested and hence does not provide any nutrients.
- ❖ Still it is needed by our body as it helps in the movement of food through the intestines and final removal of waste from our body.



Vegetables



Fruits



Cereals

Roughage and Water

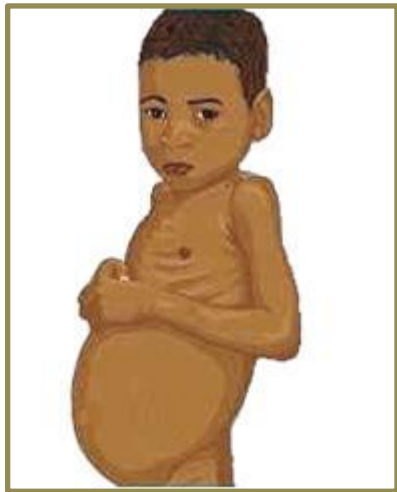
Water

- ❖ Water is very important for our body.
- ❖ It helps in digestion and maintains body temperature by sweating.
- ❖ Our body loses water through sweat, breath and urine.
- ❖ We should drink plenty of water in order to make up for the loss of water.



Nutrition Diseases

- ❖ Lack of Protein in the diet causes a disease called **Kwashiorkor**.
 - ❖ Swollen stomach.
 - ❖ Wasted Muscles.



Kwashiorkor

- ❖ Nutrition deficiency causes **Marasmus**.
 - ❖ Wasted Muscles.
 - ❖ Stunted Growth.
 - ❖ Under weight.



Marasmus

- ❖ Excessive food causes **Obesity**.
 - ❖ Fat.
 - ❖ Over weight.



Obesity

Food

Keywords

Nutrients

Substances present in food that help the body to grow and stay healthy.

Roughage

Fibre present in green vegetables, fruits and cereals.

Think and Answer

Q: Why do we need food?

Key Points:-

- v We need energy to do day-today activities.
- v Food give us that energy.
- v Food also required for growth and regeneration.

Think and Answer

Q: Why are nutrients?

Key Points:-

v Substances in food that help the body to grow and stay healthy.

❖ Main nutrients found in food are:-

❖ Carbohydrates.

❖ Proteins.

❖ Fats.

❖ Vitamins.

❖ Minerals.

Think and Answer

Q: What are minerals / Carbohydrates / Proteins / Fats / Vitamins and Minerals?

Key Points:-

- v Which Food Group? - Energy Giving, Body Building or Protection providing.
- v What function?
- v Who need it more?
- v Found in which food items?

Example for Proteins:-

- v These are Body Building foods.
- v These help in the growth of the body and repair of worn out tissues.
- v Growing children and Body builders need more Proteins.
- v Foods rich in Protein are Milk, Cheese, egg, fish, meat and pulses.

Revise and Recall

State whether the following statements are True or False:-

1. Carbohydrates are energy giving food.

True

2. Consumption of fat in excess is good for health.

False

3. Vitamins are body-building food.

False

4. Roughage is the water present in the food.

False

5. Roughage aids in digestion.

True

6. Sugar is one category of Carbohydrates.

True

