



Unit 1: Food

Our Food

Warm Up

Draw four different types of food, in the boxes below, that you eat every day.

All living things need food. Food gives you energy to work. It helps you to grow and keep healthy. It also helps in repairing the wear and tear of your body. When the food you eat is used up by your body, you feel hungry and weak.

Nutrients HEALTH & PHYSICAL EDUCATION

Food contains different substances which are useful to your body. These substances are called **nutrients**. These nutrients are necessary for life and growth. Food contains nutrients like **proteins, fats, carbohydrates, vitamins** and **minerals**. It also contains **water** and **roughage**.

Proteins

Proteins help your body to grow. They help your body to build muscles, other organs and blood. That is why foods which contain proteins are called **body-building food**.



We need food to live and grow



Proteins also help to repair the wear and tear of the body.
Children need more proteins than adults as they grow more rapidly than adults.
Meat, fish, egg, milk, cheese, pulses, nuts and chickens are rich in proteins.



Meat

Fish

Eggs

Milk

Cheese

Pulses

Nuts

Chicken

Foods rich in proteins

Carbohydrates

Carbohydrates give you energy. People who do more physical work need more carbohydrates. Sugar and starch are two types of carbohydrates. Rice, sugar and potatoes are some of the foods which are rich in carbohydrates.



Sugar

Rice

Potatoes

Foods rich in carbohydrates



Fats

Fats too give you energy. They also help to keep your body warm. Oil, butter, *ghee*, nuts and fish contain fats. Too much fat is also not good for your health.



Oil Butter Ghee Nuts Fish

Foods rich in fats

Foods rich in carbohydrates and fats are called **energy-giving foods**.

Formative Assessment

Fill in the blanks.

- _____ are body-building foods.
- _____ and _____ are energy-giving foods.
- Meat and fish are rich in _____.
- Rice is rich in _____.
- Butter and *ghee* are rich in _____.

Vitamins and minerals

Vitamins and minerals are needed in small amount by your body. They keep your body healthy. They also help your body to fight diseases. So, they are called **protective foods**. You must have them every day.

Vitamins: There are different types of vitamins like Vitamin A, Vitamin B, Vitamin C, Vitamin D, Vitamin E and Vitamin K.

Minerals: There are many different kinds of minerals such as calcium and iron which are needed by your body. You need calcium for strong bones and teeth. Iron helps in the formation of blood.

Wheat, meat, egg, fish, milk, cheese, vegetables and fruits are rich in vitamins and minerals.



We need vitamins and minerals for good health



Wheat Meat and eggs Fish Vegetables Fruits

Foods rich in vitamins and minerals



Roughage and water

Roughage is the fibre part of the food we eat. It cannot be digested and also has no food value. But it is very important as it helps our body to move the undigested food through the digestive system and out of the body. Fruits and vegetables are rich in roughage.

Water is needed by our body to function properly. Food contains some amount of water. But it is not sufficient. Your body needs more water. You must drink at least four to five glasses of water every day.



We should drink plenty of water

Do You Know?

Tomato, which is considered a vegetable, is actually a fruit. It is a fruit because it grows from a flower and has seeds inside it.

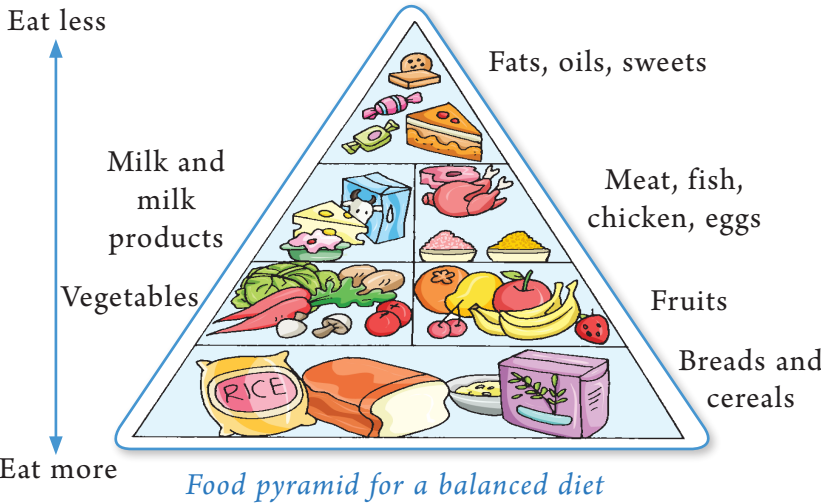
Green Tips

Do not throw away the water left in the glass after you drink it. Use it to water the plants. Save water.

A Balanced Diet

The food you eat every day is your diet. The **diet** that provides all the nutrients in the right amount is a **balanced diet**. A balanced diet keeps you fit and healthy.

Scientists use a food pyramid which shows how much of different types of food you should eat in a day for a correct balanced diet.



Activity

Select food types from the above food pyramid and write your menu for a Sunday.

Formative Assessment

The nutrients required by our body are:

- 1. _____ . 3. _____ . 5. _____ .
- 2. _____ . 4. _____ .

Alertness Concerning Food

HEALTH & PHYSICAL EDUCATION

Cleaning the raw food

Fruits and vegetables are grown in fields. Very often, dust and mud stick to them. These dust and mud carry germs which cause diseases. Fruits and vegetables are also sprayed with chemicals to protect them

from diseases. But these chemicals are harmful for us. Therefore, food should be washed thoroughly before eating. If fruits and vegetables are washed after they are cut, some of the nutrients also get washed away with water. So, they should always be washed before cutting.



Fruits and vegetables must be washed before cutting

Precautions while cooking

Fruits and some vegetables like carrots, cucumber and radish are eaten raw. But other foods have to be cooked before eating. Cooking makes the food soft, tasty and easy to digest. It also kills the germs. The different methods of cooking food are **boiling**, **steaming**, **frying**, **roasting**, **baking**, etc.



Rice: Boiled food



Idli: Steamed food



Puri: Fried food



Chicken: Roasted food



Bread: Baked food

Foods prepared by different methods

Food should not be cooked for too long. If the food is overcooked, a number of useful nutrients are destroyed.

Food should be cooked in just enough water. Extra water in cooked food also contains nutrients. If the extra water is thrown away, the nutrients in it are also lost.

Preserving food

Food gets spoilt if it is kept for a long time. Germs or moulds start growing in it. You fall ill if you eat such food. There are different methods to avoid rotting of food. This is called **preservation of food**. Preserved food remains good for a long time.

Green Tips

Vessel should always be covered while cooking food to save fuel.





The different methods of food preservation are **freezing**, **drying**, **canning**, and **adding salt, sugar, vinegar or oil**.

Sometimes artificial chemical substances called **preservatives** are added to the food.



Freezing



Drying



Canning



Adding sugar, salt or oil

Some methods of food preservation

Points to Remember

- Food is made up of different substances called nutrients which provide nourishment to our body.
- Food contains nutrients like proteins, fats, carbohydrates, vitamins and minerals. It also contains water and roughage.
- Fruits and vegetables should be washed thoroughly before eating.
- The different methods of cooking food are boiling, steaming, frying, roasting, baking, etc.
- Preserved food remains eatable for a longer time.

New Words

Nutrients: substances in food which provide nourishment to the body

Diet: the food and drink we take on a regular basis

Preservation: keeping something in a good condition for a long time

Canning: keeping food and drink in a closed container without water



Formative and Summative Assessments

A. Fill in the blanks with the correct option.

1. The nutrients that help your body to grow are _____.
vitamins / proteins
2. The nutrients present in large quantity in potatoes are _____.
carbohydrates / minerals

3. Body-building foods are rich in _____. **proteins / fats**
4. If food is overcooked, useful _____ are lost. **fuels / nutrients**
5. _____ is a method of cooking food. **Steaming / Freezing**

B. Tick (✓) the correct answer.

- | | | | |
|--|--------------------------|------------------------|--------------------------|
| 1. Carrots are a good source of | | | |
| a. carbohydrates | <input type="checkbox"/> | b. minerals | <input type="checkbox"/> |
| | | c. proteins. | <input type="checkbox"/> |
| 2. This food is rich in roughage. | | | |
| a. Chicken | <input type="checkbox"/> | b. Milk | <input type="checkbox"/> |
| | | c. Radish | <input type="checkbox"/> |
| 3. This nutrient gives us energy. | | | |
| a. Proteins | <input type="checkbox"/> | b. Carbohydrates | <input type="checkbox"/> |
| | | c. Minerals | <input type="checkbox"/> |
| 4. It is one of the methods of preservation. | | | |
| a. Washing | <input type="checkbox"/> | b. Cutting | <input type="checkbox"/> |
| | | c. Canning | <input type="checkbox"/> |
| 5. Fruits are washed before eating | | | |
| a. to remove dirt | <input type="checkbox"/> | b. to remove chemicals | <input type="checkbox"/> |
| | | c. both a and b. | <input type="checkbox"/> |

C. Match the following.

- | | |
|------------|-----------------|
| 1. fat | a. boiling |
| 2. iron | b. preservation |
| 3. starch | c. butter |
| 4. cooking | d. mineral |
| 5. canning | e. carbohydrate |

D. Answer these questions.

1. What are nutrients?
2. Write two foods which are rich in carbohydrates.
3. Name any two minerals which are needed in small amounts by your body.
4. What is a balanced diet?
5. Why do we cook food?

E. Give reasons.

1. Proteins should be included in our daily diet.
2. Vitamins and minerals are called protective foods.
3. Fruits and vegetables should be washed before eating.
4. Food should be cooked in just enough water.





HOTS (Higher Order Thinking Skills) questions

1. What happens if you eat a lot of junk food?
 - a. You get more energy
 - b. You become thin
 - c. Extra food is stored as fat
2. Have you seen 'expiry date' or 'best before' on food packets or bottles and cans? What does that mean?
 - a. Preservatives added will be effective only till that date.
 - b. Food is not going to get spoilt beyond that date.
 - c. There are no preservatives added.
3. Discuss in your class the type of foods you should take regularly and the type of foods you should avoid.

Tasks for Formative Assessment **F.A.**

Task

Visit a market with your parents. Find out all the food items that are available. Think and tell your parents what food items to choose for the family and why.



Project Idea

1. Note down for a week what you eat in your meals. Note down the major nutrients these foods contain. Write if you think the food you ate for the week was balanced or not.
2. Visit a food preservation bottling and canning centre and observe how food is being preserved.



Life Skills

To prepare yoghurt, take a small bowl and add milk in it. Next, add 1-2 teaspoons of lime or bacteria (yoghurt) in milk. Cover it in cling film and keep it in a cool dry place for few hours.

Teacher's Notes:

- Talk to the students about nutrients. Emphasise the value of nutrients for growing bodies like theirs. Stress on drinking clean water.
- Ask the students, as to how many of them eat the fruit given to them by the fruit seller to taste. Question them and make them understand that this is wrong and give them reasons for cleaning raw food before consuming.

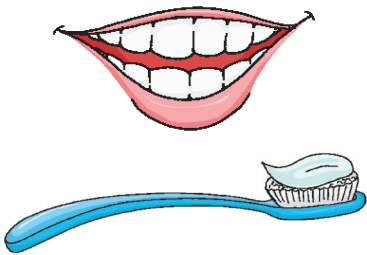


Unit 1: Food

Teeth and Digestion

Warm Up

Write a caption and a slogan for the picture.



Caption: _____

Slogan: _____

Our Teeth

We all have a pair of jaws in our mouth. The upper jaw is fixed but the lower jaw can move. Each jaw has a row of hard, bone-like teeth. Together, they form a complete set of teeth.

How are teeth useful to us?

Teeth give proper shape to our face. They also help us to speak properly. But most importantly, teeth help us to chew our food. Chewing breaks down the food into smaller pieces so that they can be swallowed and digested easily.

Temporary teeth and permanent teeth

When a baby is born, its teeth are not seen. The baby has tooth buds inside the gums. The teeth start growing when the baby is about six months old. This process is called teething. By the time the baby becomes three years old, it has a set of twenty teeth. This set of first teeth is called **temporary teeth** or **milk teeth**.



A six-month-old baby has temporary teeth



When a child is about six years old, the next set of teeth starts appearing. The second set of teeth is called **permanent teeth**. As the permanent teeth grow, they push the milk teeth out.

Children have twenty-eight teeth. At the age of about eighteen years, four more teeth start growing. These are called **wisdom teeth**. An adult has a full set of thirty-two teeth. Sixteen of these are on the upper jaw and sixteen on the lower jaw.



Children over six years have permanent teeth

Activity

Count the number of teeth on each jaw of each child of your class. Do all of them have same number of teeth?

Formative Assessment

Fill in the blanks.

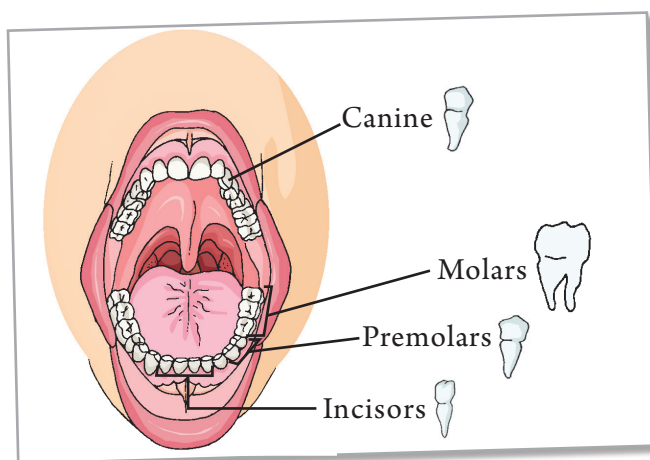
1. Temporary teeth are also called _____ teeth.
2. The second set of teeth is called _____ teeth.
3. Number of teeth children have is _____.

Types of Teeth

All the teeth are not alike. They have different shapes. Their shape depends on their functions. The four teeth at the front of each jaw are specially made for cutting the food. They are called **incisors**.

There are two pointed teeth, one on each side of the incisors. Their work is to grip and tear the food. They are called **canines**.

The remaining teeth are flat, grinding and chewing teeth. They are called **premolars** and **molars**. There are four **premolars**—two on each side of a jaw. Behind these are the **molars** which are broader than the premolars. There are six molars in each jaw—three on each side.



Types of teeth