

We shall learn :

- Teeth
- Kinds of teeth
- Care of teeth
- How to protect your teeth
- The digestive system
- Process of digestion
- Healthy eating habits
- Microbes—kinds and uses

2 Teeth and Digestion



WARM UP

Which of the following is not a part of our digestive system?

Mouth

Hand

Food Pipe

Stomach

Liver

Teeth

A newborn baby has no teeth in the mouth. Our first tooth grows when we are about six months of age.

Sets of teeth

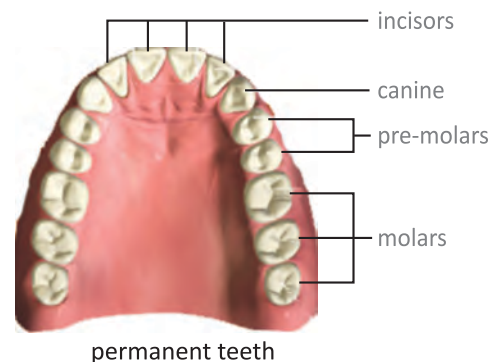
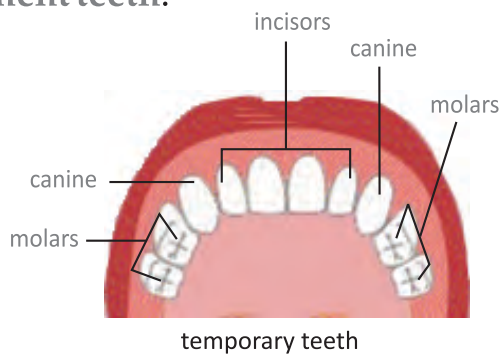
By your third birthday, you had 20 teeth. These were your first set of teeth. The teeth in the first set are called **milk teeth** or **temporary teeth**. After a few years, your milk teeth will begin to fall.



Wisdom Corner

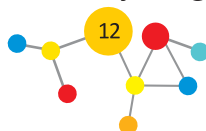
Teeth help you to eat food and speak clearly.

Every time a milk tooth falls, you get a new tooth in its place. By your thirteenth birthday, all your milk teeth will fall and there you will have a new set of teeth. These will be your **permanent teeth**.



Structure of a tooth

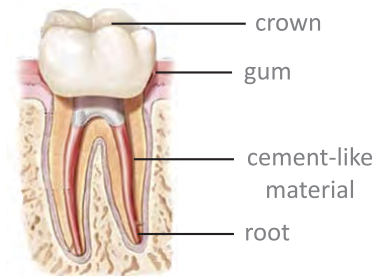
Teeth grow out of the jaw bones. They are present at birth but cannot be seen. The jaw bones are covered by pink coloured gums. As you grow, your teeth also grow.



The part of the tooth that grows and comes out of the gums is called the **crown**.

Below the crown is the long root of the tooth. The root cannot be seen because it is surrounded by gums. The outermost white part of the tooth is called the **enamel**.

Below the enamel lies the hard **dentine**. Dentine is like a bone. Inside the dentine is the **pulp**. The pulp is very soft and full of nerves and blood vessels.



structure of a tooth

Kinds of Teeth

All our teeth do not look alike. They have different shapes. They perform different functions. We have four types of teeth.

Incisors

The front four teeth on each jaw are flat and have a sharp edge. Incisors are used to bite or cut food into small pieces. They are chisel-shaped.

Canines

On both sides of the incisors on each jaw is a sharp-pointed tooth called the canine. Canines are used to tear food.

Pre-molars

These are broad and flat teeth. They grind food to convert it into fine pieces. There are two pre-molars next to each canine.

Molars

The last three teeth on both sides of our jaws are the molars. Molars are broad and flat. They too are used to crush and grind food into a fine paste.



Wisdom Corner

Enamel is the hardest substance in the human body.



incisor canine pre-molar molar



Wisdom Corner

We have 32 teeth. They are : 8 incisors, 4 canines, 8 pre-molars, 12 molars.

Care of Teeth

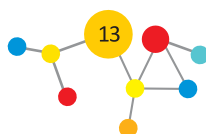
If we take good care of our teeth, we can save them from **decaying**. Bits of food that remain stuck to the teeth can cause the growth of bacteria. **Bacteria** first attack the enamel and

form a sticky coating called **plaque**. Then they attack the dentine and finally the pulp. When the bacteria reach the nerves within the pulp, they cause pain. Tooth decay results in bad breath, cavities, toothache, bleeding gums and indigestion.



Wisdom Corner

A yellow sticky layer of germs that forms on the teeth is called plaque.



Calcium and vitamin C are important for healthy teeth and gums. Foods like milk, cheese and cabbage are rich sources of calcium.

How to Protect Your Teeth

- Rinse your mouth with water after food.
- Brush your teeth in the morning and before going to bed.
- Massage your gums with your finger.
- Clean your tongue with a tongue-cleaner after brushing.
- Do not eat anything or drink colas after you brush your teeth at night.
- Replace your toothbrush every three months or sooner if the bristles begin to wear down.
- Do not share your toothbrush with anyone.
- Visit a dentist if you have a tooth problem.



Proper way of brushing teeth

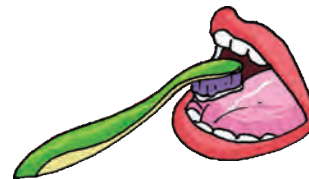
Use a soft toothbrush and brush gently for few minutes as shown. Then rinse your mouth with water at least 5 or 6 times.



Brush the front of the teeth



Brush the back of the teeth



Brush on the crown



Brush between the teeth

proper way of brushing teeth

In many parts of our country, people use twigs of neem tree and Indian gum tree (babool) to brush teeth.

The twig is first chewed to change it into a soft brush.

Chewing gives the teeth and gums good exercise.



twigs of neem tree

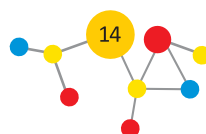
The Digestive System

The process by which useful substances in the food change into simpler substances is called **digestion**. The simple substances are then absorbed into the water present in our blood. The blood takes them to all



Wisdom Corner

The longest part of the digestive system is the small intestine. It is about 5 metres.



the cells of our body.

Digestion of food is a slow process and it takes place in a number of steps. Several organs of our body work together to digest the food we eat. All the organs that work to digest food form the **digestive system**.

The mouth, foodpipe (Oesophagus), stomach, liver, pancreas, small intestine and large intestine are organs of the human digestive system.

Process of Digestion

The process of digestion starts in the mouth. Here food is broken down by chewing. This chewed food mixes with saliva which helps in digestion.



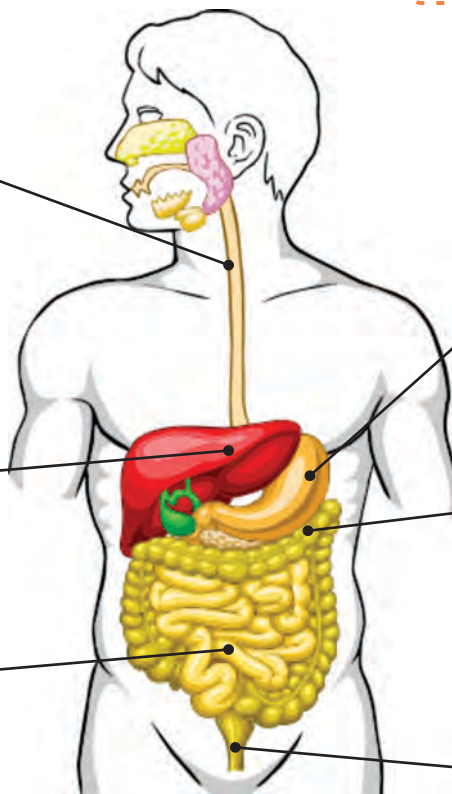
Wisdom Corner

Saliva is a watery, tasteless liquid present in the mouth. It is a digestive juice.

Foodpipe or the oesophagus : Food passes from the mouth through this long tube and reaches the stomach.

Liver : It produces juices that play an important role in digestion of food.

Small intestine : Food from large intestine passes into the small intestine. Here all the useful parts are moved into the blood and blood takes it to all parts of the body.



Stomach : It is a sac-like organ where food is further broken down.

Large intestine : It holds the food that cannot be digested and absorbs water from it and forms faeces.

Anus : Faeces is thrown out of the body through the anus.

Human Digestive System

How long is the digestive path?

The digestive path starts from the mouth and ends with the large intestine.

Mouth	8 cm	Foodpipe	25 cm
Stomach	15 cm	Small intestine	5 m
Large intestine	1 m 20 cm		



Healthy Eating Habits

- Eat four or five small meals daily.
- Chew the food well and do not swallow it whole.
- Eat fruits and vegetables everyday. This will provide your body with minerals and vitamins as well as roughage.
- Always wash your hands before and after every meal. Rinse your mouth well after meals.
- Always eat a balanced diet.
- Do not overeat, as your body will not be able to digest it.
- Have clean, fresh and well-cooked food as it will keep you healthy.
- Ensure that the utensils used to cook and eat food are washed and dried properly.

Microbes

Microbes are very small living things that can be seen only through a microscope. Sometimes, when many microbes grow in a place, we can see their colony without the use of a microscope.

Microbes can be useful and harmful. Harmful microbes that cause diseases, are called **germs**.

Some microbes are, however, useful. Microbes are found everywhere. They grow rapidly, whenever they get warmth, moisture, food and air. They may grow in soil, in water, inside or outside our body and the bodies of animals. Our mouth and blood provide favourable conditions for some of them to grow.

Kinds of Microbes

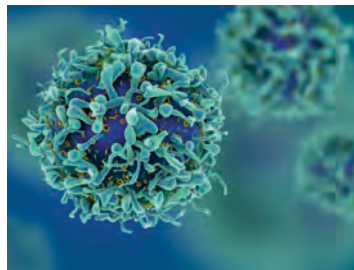
Microbes are of four main kinds :

Bacteria: They are one-celled micro-organisms. They may be rod-shaped, spiral or round. They cause diseases like typhoid, tuberculosis and pneumonia.

Viruses : They are smaller than bacteria and can be seen only through powerful microscopes. They cause diseases like smallpox, flu, polio and common cold.



bacteria



viruses



protozoa



fungi

Different types of Microbes

Protozoa : They are the smallest and simplest of one-celled microbes. Malaria and dysentery are caused by protozoa.

Fungi: They are plants which grow on decaying matter and cause disease like ringworm.

Uses of Microbes

- Some microbes are used to make ice-cream, toothpaste, glue, detergents and medicines.
- Microbes help to clean the environment by decomposing dead bodies of plants and animals.
- Some microbes, like oil-eating microbes, help to clean the oil spills in the oceans.
- Yeast is used to make bread.
- Certain mushrooms are edible.
- Bacteria convert milk into curd.
- Some bacteria help to digest roughage in animals, for example, in cows.



Glossary

Crown	The upper part of the tooth that is visible
Root	Part of the tooth inside the gums
Incisors	Teeth that help in cutting and biting the food
Canines	Teeth that are used for tearing the food
Premolars	Teeth that help in cracking and chewing the food
Molars	Teeth that help in chewing and grinding the food
Plaque	A yellow sticky layer of germs that forms on the teeth
Digestion	The process of changing food into a simple form that can be used by the body
Microbes	Small living things that can be seen only with the help of a microscope

Question Hour-I



A Tick (✓) the correct answer :

1. Breaking down of food and mixing it well with saliva happens during :

- (a) drinking (b) chewing
(c) sipping (d) none of these

2. The tube that connects the mouth and the stomach is called :

- (a) intestine (b) anus
(c) oesophagus (d) liver



3. Useful parts from the digested food move into the blood in the :

- (a) small intestine (b) large intestine
(c) liver (d) oesophagus

4. Microbes that cause malaria are :

- (a) viruses (b) bacteria
(c) protozoa (d) fungi

5. Which among the following is not a germ?

- (a) bacteria (b) fungi
(c) virus (d) crown

B Fill in the blanks with the correct words from the box :

*digestive system, microscope, protozoa, newborn baby,
bacteria, clearly, balanced, microbes*

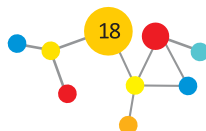
1. A _____ has no teeth in the mouth.
2. Teeth help you to eat food and speak _____.
3. All the organs that work to digest food, form the _____.
4. Always eat a _____ diet.
5. We can see microbes only through a _____.
6. _____ can be useful and harmful.
7. _____ are one-celled micro-organisms.
8. _____ are the smallest one-celled microbes.

C Tick (✓) the correct and cross (X) the incorrect statements :

1. Cutting teeth are sharp, long and pointed.
2. In our life time we have two sets of teeth.
3. Sweets and sticky food are good for teeth.
4. We should brush our teeth after every meal.
5. To exercise the gums we should chew fibrous food.
6. The chewed food mixes with saliva which helps in digestion.
7. Microbes can be seen through the naked eye.
8. Bacteria convert milk into curd.

D Match the following :

- | | |
|---------------|---|
| 1. Incisors | (a) tear food |
| 2. Canines | (b) bite food |
| 3. Enamel | (c) temporary teeth |
| 4. Dentist | (d) a person who checks and looks after teeth |
| 5. Milk teeth | (e) a thin sticky layer of germs |
| 6. Pulp | (f) the outermost white part of a tooth |
| 7. Plaque | (g) the soft inner part of a tooth |



E Answer the following questions :

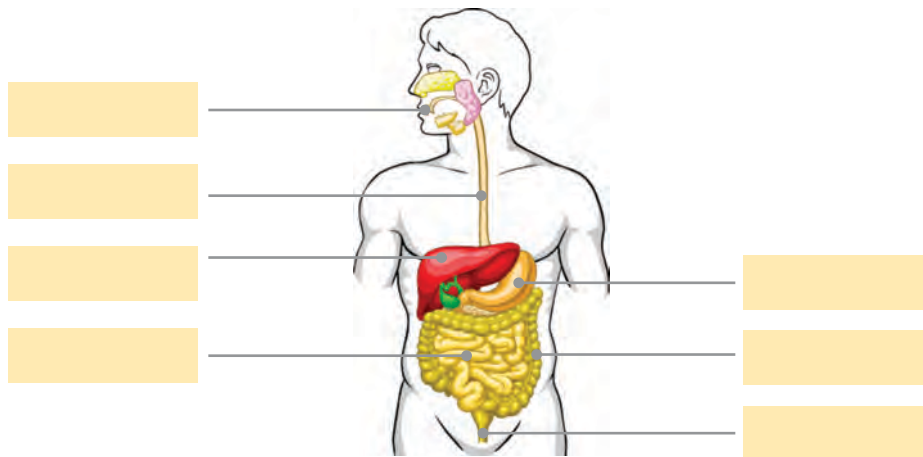
1. What are a child's first teeth called?
2. When do permanent teeth begin to grow?
3. Describe the structure of a tooth.
4. Name the four kinds of teeth in an adult. Write functions of each kind.
5. Write five ways by which we can take care of our teeth.
6. What do you mean by digestion?
7. Write any five healthy eating habits.
8. What are microbes? Name their four different kinds.
9. What kind of microbes are called germs?
10. Give any three uses of microbes.

Think Beyond HOTS 

Which teeth are also known as 'wisdom teeth'? How many are they in an adult person?

Question Hour-II

A Label the picture :



B Name the following pictures :



Fun to Drill



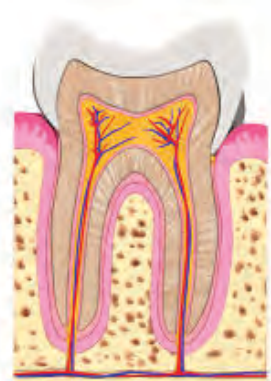
Who am I?

I have a crown, I am not a king.

I have a neck, I am not an animal.

I have a root, I am not a plant.

I am a _____ .



Fun to Act



1. Sit in pairs. Count the number of different teeth in your partner's mouth and record the same in the table given below. Look for teeth with cavities.

	Types of Teeth	Upper Jaw	Lower Jaw	Total
1.	Incisors			
2.	Canines			
3.	Pre-molars			
4.	Molars			

- ◆ How many teeth have cavities? _____
 - ◆ How many teeth are yellow in colour? _____
2. With the help of your friends make a colourful chart to show correct method of brushing teeth. Put it in your classroom.