

2

Human Body The Teeth

We'll cover the following key points:

- Importance and Type of Teeth
- Structure of Teeth
- Taking Care of your Teeth



Hi, I'm EeeBee

Still curious?
Talk to me by
scanning
the QR code.



Learning Outcomes

By the end of this chapter, students will be able to:

- Understand the importance of teeth in the human body and their role in digestion and overall health.
- Explain the types of teeth, including incisors, canines, premolars, and molars, and their functions.
- Describe the structure of a tooth, focusing on the layers such as enamel, dentin, pulp, and cementum.
- Identify proper oral hygiene practices and explain the importance of taking care of teeth to prevent common dental issues.

Guidelines for Teachers

The teacher can begin the chapter by discussing the importance of teeth in everyday life, such as eating and speaking, and how they contribute to overall health. Use models or diagrams to explain the structure of a tooth and the different types of teeth with their specific functions. Discuss the significance of good oral hygiene using relatable examples, such as brushing and flossing, and explain common dental issues like cavities and gum disease. Encourage students to engage in simple activities like examining their own teeth in a mirror to identify different types or discussing their experiences with dental care.



Warm Up

Experiential Learning

Write 'Yes' or 'No'.

1. I brush my teeth twice a day.
2. I rinse my mouth after I eat anything.
3. I chew my food well before swallowing it.
4. I include food such as salads and roasted corn in my meals.
5. I change my toothbrush every 3 months.
6. I do not eat too many sweets.

Fun Fact



Humans develop two sets of teeth in their lifetime—baby and adult teeth. But did you know that elephants grow six sets throughout their lives? Once their final set is worn down, they can no longer eat properly. Luckily, our teeth are designed to last a lifetime with proper care, unlike many animals!

Why teeth are important?

- ✦ Teeth help in biting and chewing food so that it is small enough to be swallowed.
- ✦ Teeth help us to speak clearly. (Old people find it difficult to speak clearly as they do not have teeth.)
- ✦ It gives a proper shape to our face.



Take a Task



Watch Remedial



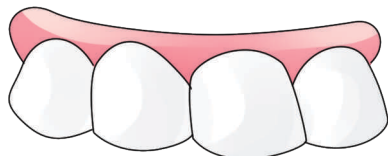
How many sets of teeth do we have?

Deciduous/Milk Teeth	Permanent
<ol style="list-style-type: none">1. The first set of teeth.2. 20 in number.3. Start growing at the age of 6 months and complete growing by 2 and a half years.4. Temporary in nature.	<ol style="list-style-type: none">1. Second set of teeth.2. 32 in number.3. Start growing from about 6 years and all 32 complete growing by about 18-25 years.4. Will stay for entire life.

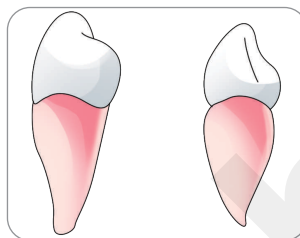
Why do teeth have different shapes?

Different teeth do different jobs.

Incisors (4 in each jaw) Shape: Flat and have sharp edges. Function: For cutting and biting the food.	Canines (2 in each jaw) Shape: Sharp and pointed. Function: For tearing food.
Premolars (4 in each jaw) Shape: Broad Function: To crush the food.	Molars (6 in each jaw) Shape: Big, flat and have broad upper surface. Function: To grind up food until it is small enough to swallow.



incisors



canines



premolar



molar

Each type of tooth has a special shape so that it can do its job.

Third molars are commonly called **wisdom teeth** because they erupt in the mouth around 16-18 years of age. They are the last teeth to erupt and the available space to accommodate them is often limited. It is thus not surprising that these teeth can either not erupt completely, or not erupt at all.

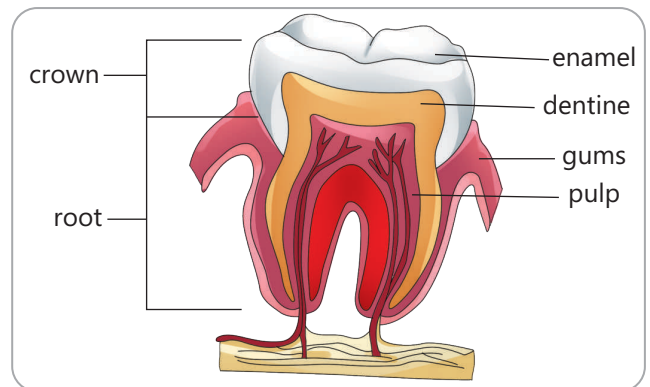
What does a tooth look like?

Externally, Teeth have two parts:

- ✦ The **crown** is the part of the tooth which is covered with enamel and this is the part usually visible in the mouth.
- ✦ The **root** is the part embedded in the jaw. It anchors the tooth in its bony socket and is normally not visible.

Internally, teeth have three layers:

- ✦ **Enamel** is a hard protective outer layer covering the crown of the tooth.
- ✦ **Dentine** is a second protective layer covering the nerve of the tooth. It can be



Did you know ?

Tooth enamel is the hardest substance in the human body.



sensitive if the protection of the enamel is lost.

- ✦ **Pulp** (also called the nerve) is the soft tissue containing the blood and nerve supply to the tooth. The pulp extends from the crown to the tip of the root.
- ✦ **Cementum** The layer of bone-like tissue covering the root. It is not as hard as enamel.

The tooth is like an apple. An apple has an outer skin and inner flesh to protect the seeds. A tooth has an outer enamel and inner dentine to protect the pulp.

Check 'N' Mate

Critical Thinking

Write 'T' for true and 'F' for false statements.

1. You have 32 milk teeth.
2. All our teeth have the same shape.
3. The surface of your teeth is harder than a bone.
4. Premolars and molars crush and grind the food.
5. Pulp is the innermost part of the tooth protected by dentine.

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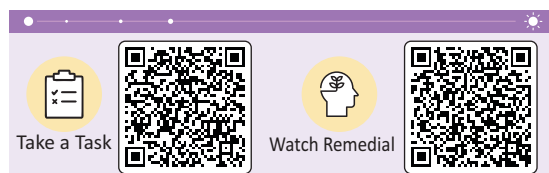
Activity

Creative Learning

1. **True or false:** Everyone should visit a dentist two times a year.
2. **True or false:** A dental hygienist is the person who checks and cleans your teeth before you see the dentist.
3. Name two things you can do to avoid getting a cavity _____
4. Name the soft tissue that supplies blood to the teeth. _____
5. **True or false:** Enamel is a soft inner layer of teeth that covers the tooth-root.

Taking Care of your Teeth

Plaque develops when foods containing carbohydrates (sugars and starches), such as milk, soft drinks, raisins, cakes, or candy are frequently left on the teeth. Bacteria that live in the mouth feed on these foods, producing acids as a result after some time, these acids destroy **tooth enamel**, resulting in **tooth decay** and cavities. Plaque can also develop on the tooth roots under the gum and cause breakdown of the bone supporting the tooth.



Plaque can cause serious damage to your teeth and gums if you don't remove it with regular, daily tooth brushing and **flossing**.

You can prevent most problems with teeth such as bad breath and diseased gums, by taking these following steps:

1. Brush your teeth at least twice a day, once in the morning and once before going to bed.
2. Floss between your teeth every day.
3. Gently massage your gums with your fingers.
4. Visit a dentist regularly for a check up and cleaning of teeth.
5. Cut down on sugary foods and **fizzy** drinks.
6. Eat a diet that is rich in calcium, such as milk and milk products to keep your teeth strong.

Did you know ?

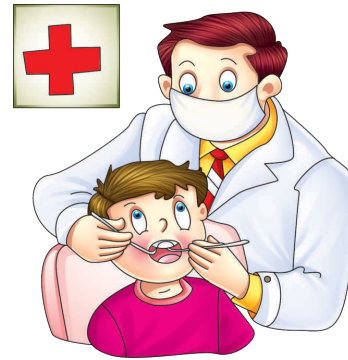
The first toothbrushes were tree twigs. Chewing on the tips of the twigs spread out the fibres, which were then used to clean the teeth.



Brush your teeth



Drink milk daily



Visit to the dentist regularly

Food for Healthy Teeth and Gums

- ✦ Dairy products such as milk, yogurt, and cheese are great for teeth because they are high in calcium.
- ✦ Food rich in Vitamin C such as vegetables like peppers of all colours and citrus fruits such as oranges, kiwis, lemon, pineapple, and strawberries.
- ✦ Crunchy food such as apples, cucumbers, carrots are good for teeth as they clean teeth surfaces, removing plaque and food particles. Onions can help to kill bacteria, which can decrease your risk of gum disease and infection. They also give a proper exercise to the gums.
- ✦ Vitamin D helps the body to absorb calcium better and is very good for healthy teeth. Sunlight (You can't eat sunlight, but it is still the best natural source of Vitamin D), fish, egg yolks and cod liver oil are some sources of Vitamin D.

Food that Needs to be Avoided

- ✦ The acids and sugar found in carbonated soft drinks such as Cola can cause tooth damage.
- ✦ Extra chewy candies like **taffy** and caramels stick to the teeth for a long time which can dissolve tooth enamel.
- ✦ Eating chips for a snack is not recommended, not only because they provide no nutritional value, but also because the starch in them can cause tooth decay.
- ✦ Instead of bread and pasta made with white flour, opt for whole wheat options such as brown bread, brown rice etc.



Check 'N' Mate



Critical Thinking

Fill in the blanks with correct words.

1. _____ (Plaque/Bacteria) damage your teeth and gum.
2. Visit a _____ (dentist/cardiologist) regularly for a check up and cleaning of teeth.
3. _____ (Starch/Vitamins) in chips can cause tooth decay.



In a Nutshell

- ✦ A child's first set of teeth are the milk teeth. They fall off and are replaced by permanent teeth.
- ✦ We have two sets of teeth in our lifetime-milk teeth and permanent teeth.
- ✦ Different teeth do different jobs: incisors for cutting, canines for tearing, premolars and molars for crushing and grinding to the food.
- ✦ Externally, the tooth consists of crown and the root.
- ✦ Internally, the tooth consists of the hard enamel, the dentine and the pulp.
- ✦ If we do not keep our teeth clean, cavities can develop in them.
- ✦ Food containing calcium, Vitamin C and Vitamin D are good for healthy teeth and gums.
- ✦ Regular visit to a dentist is a must.

Plaque	:	A sticky colourless layer of bacteria on teeth.
Flossing	:	To clean between one's teeth.
Fizzy drink	:	Soft drink such as Coke, Pepsi, Fanta etc.
Taffy	:	A sweet similar to toffee.



Gap Analyzer™



EXERCISE

That turn curiosity into confidence—let's begin!



A. Objective Type Questions.

- The pulp contains _____, which send messages to the brain if your ice pop is too cold.
 - Blood vessels ☐
 - Nerves ☐
 - Receptors ☐
- What are the last four teeth a person will get?
 - Molars ☐
 - Wisdom teeth ☐
 - Premolars ☐
- The teeth are big and strong to help you grind food so it can be swallowed.
 - Canine teeth ☐
 - Premolar ☐
 - Molars ☐
- What hard, tough and shiny substance covers the crown?
 - Enamel ☐
 - Wax ☐
 - Keratin ☐

B. Fill in the blanks with the correct word.

- The sharp and pointed teeth in our mouth are called _____.
- A person who is 30 years old should have _____ teeth.
- In our mouth the 8 _____ in front are the cutting teeth.
- A tooth with a cavity will start paining if the cavity reaches the _____.
- Sunlight provides the body with Vitamin _____.

C. Which set of teeth would you use to do the following :

- Break a nut _____
- Chew meat _____
- Bite an apple _____

4. Tear Sugarcane _____



B. Very Short Answer Questions.

Give one word answer:

1. It sends messages to the brain.
2. The last four teeth a person will get.
3. Big and strong teeth to help you grind food.
4. Hard, tough and shiny substance covers the crown.

C. Short Answer Questions.

1. How many sets of teeth do humans have during their lifetime? Name them.
2. How can you prevent bad breath?
3. What are the different food items to be included in our diet for having healthy teeth and gums?

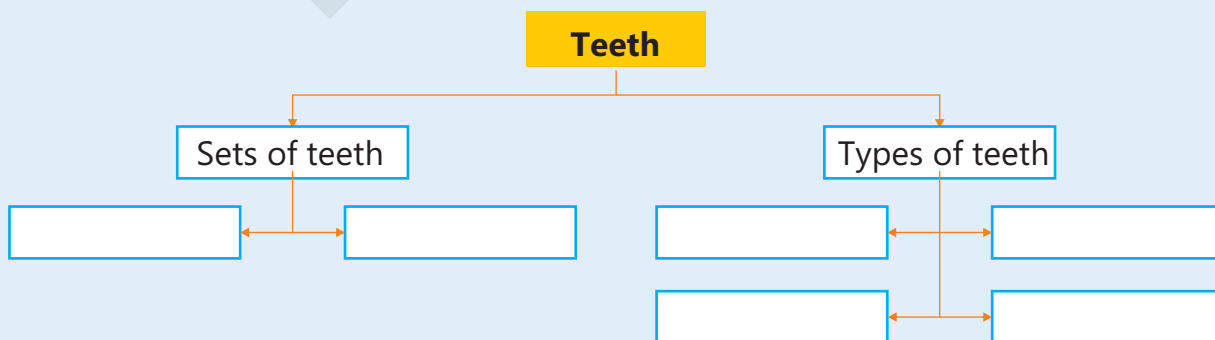
D. Long Answer Questions.

1. Why are teeth important?
2. Name the different kinds of teeth a human has and write about their functions.
4. What is plaque? How is it formed?

Time to Recall

Remembering and Analysing

Recall and complete the concept map given below.



Time to Apply

Applying and Creating

How to brush correctly...



Tilt the brush at a 45° angle against the gumline and sweep or roll the brush away from the gumline.



Gently brush the outside, inside and chewing surface of each tooth using short back-and-forth strokes.



Gently brush your tongue to remove bacteria and freshen breath.

- ✦ At what angle should you tilt the brush against the gumline while brushing?
- ✦ Why is it important to gently brush your tongue?



Time to Discuss

Pondering and Communicating

What would happen in the following situations?

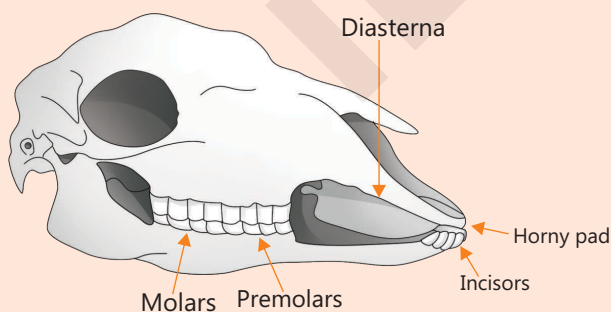
- a. You eat chocolates and sweets and then don't brush your teeth.
- b. Bacteria is present in your mouth.
- c. The food is not washed properly before eating and cooking.



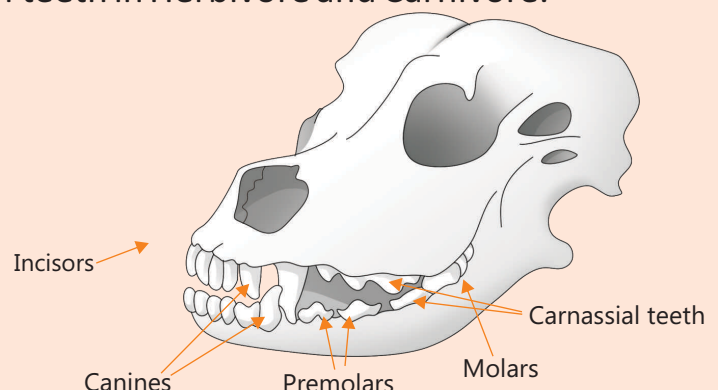
Time to Observe

Observing, Critical Thinking, Analysing

Study the difference in the arrangement of teeth in Herbivore and Carnivore.



Sheep Skull



Dog Skull



Time to Create

Creating and Collaborating

On a chart paper, draw, colour and label the following:

1. The types of teeth human have.
2. The parts of a tooth.