

Activity Guide

Help children identify and learn about what teeth are made from, how they are used, and how to practise good dental hygiene.



Introduction

What children should learn about teeth:

Children should be aware of different body parts associated with the digestive system including their teeth and the function of different types of teeth. They should know the names of different types of teeth and should be aware of good hygiene practices. They should be aware of what damages teeth and how to look after them. Good science should involve discussion, observation and some drawing and writing.

This guide contains the following information:

- 1) What is a tooth made from?
- 2) Human teeth - identification using the Giant Teeth Demonstration Model
- 3) Different types of teeth - what do they do?
- 4) Healthy eating - understanding which food types can damage teeth
- 5) How to clean teeth properly



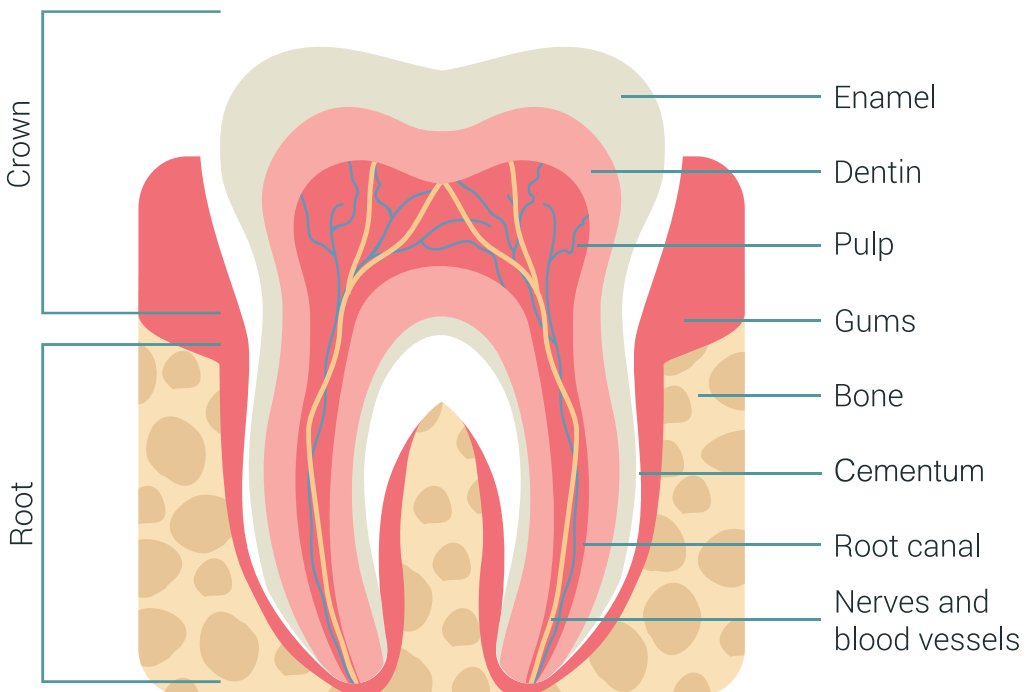
1) What is a tooth made from?

Teeth have an outer coating made from **enamel** which is the hardest substance found in the human body. Under this layer is **dentin** which is made from living cells. Below this is **pulp** which is softer and where the blood vessels and nerves can be found. The tooth has a visible **crown** which sits above the **gum**, below this is the neck of the tooth and then the root which extends into the **jawbone** below and holds the tooth firmly in place. Between the tooth and the jaw bone is a layer called the **cementum**.

Children are usually born with no teeth. First teeth will appear around the age of 6 months, although they may appear as soon as 3 months or as late as 14 months.

Whilst an adult has a full set of 32 teeth (including wisdom teeth), an infant will have just 20 teeth. These first teeth are called baby teeth and are usually fully formed by the age of 3 years. They are also called “milk teeth” because they tend to be whiter than adult teeth.

Baby teeth begin to fall out between the age of 4 to 7 years and this tends to happen in the same order that they appeared – so the lower middle two incisors are usually the first to be lost.



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2) Human teeth – identification

By the time a child has reached the age of 13 years they will normally have a set of 28 teeth.

These include:

8 x **incisors**: sharp flat teeth in the middle of the lower and upper jaws

4 x **canines**: pointed teeth which sit either the incisors

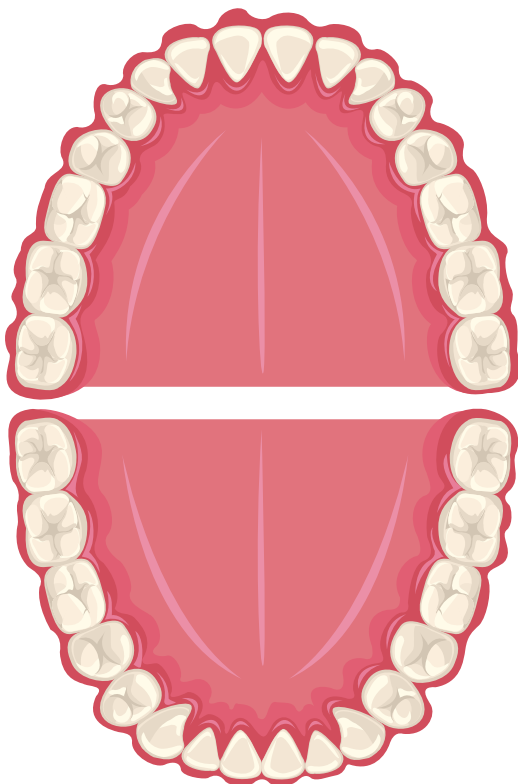
8 x **premolars**: small flatter teeth between the canines and molars

8 x **molars**: large flat teeth in the rear of the mouth

Wisdom teeth or third molars appear around 18 years of age. A fully grown adult will usually have 4 wisdom teeth, therefore 32 teeth in total.

Task 1: Look at the Giant Teeth Demonstration Model and see if you can identify the different types of teeth. Look for incisors, canines, premolars and molars. Can you describe each tooth type so you can tell them apart?

Task 2: Can you name each tooth type and show where they appear on the illustration below?



Upper Teeth

Lower Teeth

3) Different types of teeth – what do they do?

Thinking about the animals they know, such as pets, farm animals, garden animals, minibeasts etc, children will be able to put them into different categories.

Separating animals into the things they eat is one way of classifying them. There are 4 main categories:

Herbivores eat only plants, e.g. mice, rabbits, cows, deer.

Carnivores eat only meat, e.g. cats, hyenas, polar bears, dolphins.

Omnivores eat all types of food, e.g. badgers, monkeys, pigs, humans.

Detritivores eat decomposing plant and animal matter, e.g. worms, woodlice, maggots, slugs.

Take this a step further and consider the sorts of teeth different animals have. A tiger (carnivore) has ripping canines for tearing meat; an elephant (herbivore) has only huge flat premolars and molars for grinding plants and tree parts into pulp; a human (omnivore) has both canines and molars, as well as sharp incisors for cutting.

Task 3: Look up pictures of different animal species and see if you can work out which animals are carnivores, herbivores, omnivores and detritivores.



4) Healthy eating – understanding which food types can damage teeth

Food entering your digestive system comes into the mouth and the digestive process begins when we chew, stimulating digestive juices to begin their work. Bacteria in the mouth produces plaque which is a colourless film that develops quickly after we eat. Plaque coats our teeth and will turn into tartar if it is not removed.

If you brush your teeth, plaque is removed. If left to turn into tartar which is a hard coating on the teeth this cannot easily be removed by brushing and needs professional cleaning to remove it.

Foods high in carbohydrates, sugars and starches are a particular cause of tooth decay so these should be limited. Sweets, cakes, ice cream, sauces, chocolate, preserves and some breakfast cereals all contain high levels of sugar. Not only are some foods high in sugar but fizzy drinks can be very high in their sugar content too. Eating a balanced diet will provide the nutrients your body needs to grow and develop well. Cleaning your teeth regularly is the key to keeping your teeth in good health and preventing the plaque acids attacking and destroying the enamel of your teeth and the development of tartar. A poor diet can lead to gum disease and tooth decay - if your diet is low in the nutrients your body needs, your mouth may have a more difficult time resisting infection.

To maintain a balanced diet eat foods from each of the five major food groups:

- Vegetables and legumes/beans
- Fruit
- Grain - especially wholegrain and/or high fibre cereal varieties
- Lean meats, poultry, fish, eggs and tofu
- Dairy - milk, yoghurt and cheese.

When choosing a teeth friendly snack, go for nutritious foods such as cheese, raw vegetables, plain yogurt or nuts.





5) How to clean teeth properly

Brushing your teeth regularly is important not only for dental hygiene but also for good health. Each time you brush your teeth you will be removing plaque which can cause tooth decay, so it is important you do it properly. As a growing child you should clean your teeth 2 or 3 times a day and if you select a 'fluoride' based toothpaste it is known to fight the bacteria which causes tooth decay and increases the hardness of tooth enamel. However, fluoride is not recommended for children under 3 years of age and it is not to be swallowed as it is unhealthy to eat – so after use it must be rinsed and spat out. Use a small amount of toothpaste – around the size of a pea is recommended.

Select a good toothbrush – one that fits your hand well and does not irritate your gums when you use it. Make sure the bristles are straight and discard if it shows any signs of wear (around 3 to 4 months is recommended). Electric toothbrushes are good for a really deep clean, but using a standard toothbrush can do just as good a job if you do it properly. Always rinse your toothbrush before and after you use it, and store upright so it can dry before you use it next.

The recommended technique for brushing is to set the bristles at the gum line and brush either vertically or in a circular motion. The order of cleaning should be rinse your mouth, clean the outer surfaces of your upper teeth, then the outer surfaces of your lower teeth. Then the inner surfaces of your upper and lower teeth (these are often missed) before moving on to the chewing surfaces of all teeth with special attention being paid to the rear molars where most tooth decay occurs.

Be sure to brush your tongue too as it prevents the build-up of bacteria and potentially bad breath.

Task 4: Use the Giant Teeth Demonstration Model and toothbrush to practice the technique of teeth brushing. Remember the action should be to start at the front of the mouth and to use an action where the brush moves from the gum/jaw line up and down or in a circular motion.

Tip: brushing your teeth for 2 minutes is a long time so try humming a song or listening to the radio whilst you are cleaning them. Brushing them for the duration of an entire song will ensure you have brushed them thoroughly. Alternatively use one of our TickiT 2-minute sand timers.

