



THE ONLINE
DENTIST

School resources

Teachers' notes

I've put together a document that you can skim over if you want to be one step ahead of the kids before you use 'The Online Dentist' schools resources in class.

A lot of this stuff is really simple and you'll already know it. But there may be the odd thing that you didn't know or had forgotten in here that might help to answer a tricky question posed by an inquisitive pupil.

See how you get on. Please feedback to us if you enjoy using the resources.

More importantly, if there is anything you think is rubbish, please tell us so that we can change it.

Have fun!

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Different types of teeth

We need our teeth to get food ready to go into our stomachs.

Incisors. Very front teeth. Four on the top and four on the bottom. They are designed to cut like scissors. Your **incisors** slice off a mouthful of food when you bite.

Canines. The teeth next to your incisors are called **canine** teeth. We have four of these; one in each quarter of our mouth. These are slightly pointy teeth and are used to grip things. They are used effectively by predators in the wild. Predators like lions have big canine teeth.

Premolars. Adults have eight **premolar** teeth between our molar and canine teeth. **Premolars** are smaller than molar teeth but help with chewing. There are no premolars in the set of milk teeth. Permanent, adult premolar teeth come into the mouth around the age of 10 to 11 years old.

Molars. Your very back teeth are called **molar** teeth. Our chunky **molar** teeth bash together when we chew to mash up our food until it is ready to be swallowed. Humans have eight baby molars and can have up to twelve adult molars (including four wisdom teeth).

What are teeth made of?

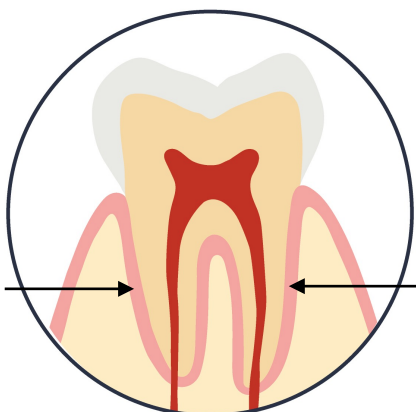
Most of a tooth is made up of something called **Dentine**. This makes up the bulk of the inside of the tooth.

On the outside of the top of the tooth, there is a layer of hard **Enamel**. This is what keeps the tooth really nice and strong.

Inside the tooth, there is a **Nerve**. This gives the tooth feeling. The nerve runs down the roots of the tooth, comes out of the bottom and heads off to your brain to tell your brain how the tooth is feeling that day.

Around the roots of your teeth there is **Bone** that holds the teeth in place. This holds on to the roots of each tooth and holds it in position.

Over the top of the bone is a layer of **Gum**. Around the neck of your tooth where the tooth meets the bone, your gum forms a seal like a collar around the tooth to keep out food and bugs to keep the tooth healthy.



You may notice that there is a pink layer that is continuous with the gum and goes between the bone and the tooth.

If an eagle-eyed student spots this and asks, you tell them this...

This is the **Periodontal ligament**. This is a tiny ligament that ties the tooth to the bone. This is a springy layer that helps you to control the amount of force that you use when you bite.

If you ever bite on something unexpectedly hard, the ligament feels the extra pressure and tells your brain to stop biting. Very clever.

How a child's teeth change as they develop

Remember, we all develop at different rates so if someone doesn't fit into these timescales exactly, don't worry. We're all different. But every child under 18 years old must be taken to the dentist every six months for a dental check and to monitor their development.

Humans have two sets of teeth. Primary (or milk teeth) are the first set of teeth to come through. There are 20 of these in total and they erupt between the ages of 6 months and 3 years. These teeth are not built to last very long so can start to become very worn, especially at the front around the age of 6 or 7.

Around the age of 6 or 7 the first permanent (or adult) teeth can start to come through. At 6 years old, the first adult molar teeth can start to come through at the back, behind all of the baby teeth. Roughly the same time, the baby incisor teeth at the front will start to fall out and be replaced by adult front teeth.

When these new adult incisor teeth come through, they will often look quite big and may have a gap between them. This is very common and as the child continues to grow, their teeth will fit better into their smile and the gaps will start to close up.

At the age of 10 to 12, the remaining baby teeth will come out and a load of adult teeth will push through into the mouth. Wisdom teeth may come through in late teens or early twenties but the majority of swaps will have happened by about 12 years old.

So by the age of 12 years old, it is common that a child will only have permanent teeth. These teeth have to last a lifetime so must be cared for. Check ups with the dentist are vital every six months.

Tooth decay

Tooth decay is when you get holes in your teeth.

Inside your mouth, there are bacteria. These bacteria eat sugar when it comes their way on the path to your stomach. Sweets, fizzy pop, cakes. So you are sharing your sugary snacks with bacteria.

The bacteria eat sugar and turn it into acid that is then deposited on the surface of the tooth. Children find it easy to imagine a bug 'pooping' acid onto a tooth. This also illustrates that it's not very nice and we need to brush away these bacteria. We have some fun animations of this in our videos.

More sugar means more acid. More acid means more damage. Given time, the acid will damage the tooth so much that the tooth will get a hole in it.

When a tooth has a hole, the tooth is now much weaker. The tooth may break and may become painful.

This is tooth decay.

Sugar + Bacteria = Acid

Acid + Time = Decay

This is why it is so important to care for our teeth and be aware of the foods we eat.

How to care for your mouth

Cleaning your teeth is so important because you need to clean away the bacteria that cause tooth decay.

To brush your teeth you need a toothbrush and a pea sized amount of toothpaste.

When picking a manual brush, you want a brush with a small head to get into the tight spaces in your mouth. An electric brush does the hard work for you but you can still get a good clean with a manual brush. Children can use electric toothbrushes.

Your toothpaste must contain **fluoride**. This is the key ingredient in toothpaste. Fluoride adds itself to your teeth to make your teeth stronger, protecting them against bacteria and tooth decay. The amount of fluoride that children should have in their toothpaste varies depending on their age.

When brushing your teeth, you should brush every surface; the insides, biting surfaces and the outside bits. Think about each tooth individually, drawing little circles with the toothbrush on each surface.

Lots of bacteria collect where the tooth meets the gum so make sure that you get half of the toothbrush onto the gum and half on the tooth.

You should brush for *at least* 2 minutes. When you're finished, spit out the toothpaste but don't rinse with water. This leaves a bit of the toothpaste on your teeth which keeps protecting them.

You need to brush at least twice a day. Once in the morning and once before you go to bed. The brush before bed is so important because if your teeth aren't clean, bacteria can party all night long, damaging your teeth.

People with adult teeth must clean between their teeth once a day with either floss or interdental brushes. Interdental brushes are the best way to clean between your teeth but young people and people with tight gaps between their teeth may not have enough space for interdental brushes. In that case, floss should be used. Remember, most children will have all adult teeth by the age of 12.

A fluoride mouthwash can be really useful but it must be used *at a separate time* to brushing. The key ingredient in both toothpaste and mouthwash is **fluoride**. So if you use mouthwash straight after brushing, you are just swapping the good stuff from your toothpaste for the good stuff in your mouthwash. This is pointless. But if you use the mouthwash at a different time, for example, when you come home from work or school, you get the full benefit of both.

The final way to care for your mouth is to visit the dentist for routine checks as recommended by the dentist.

How parents should care for their child's teeth

As soon as a baby gets their first tooth, parents should start brushing their child's teeth.

As a child gets older, they will want to try brushing their teeth themselves. Up until the age of 8 years old, a child can brush their teeth first but it is really important that the parent brushes their teeth again to ensure a really thorough clean. This can be easier if the parent stands behind the child.

The toothbrush head should be small with flat bristles so you can get into those tighter spaces in a small mouth.

The toothpaste need to contain fluoride. The amount of fluoride is really important and varies for different ages. Visit 'The Online Dentist' site for advice on toothpastes and check with a dentist.

The child must spit out any toothpaste after brushing. Younger children should only be given a smear of toothpaste to reduce the amount swallowed. Don't get them to rinse. This leaves a little bit of toothpaste on the teeth that keeps protecting.

In terms of diet and foods, it's sugary and acidic foods that will damage your teeth. Something particularly relevant to younger child is the fact that milk is packed full of sugar. Milk is a great source of nutrition but children should not be going to sleep with a bottle of milk or anything other than water. Milk in bed means that sugar is in contact with the teeth all night, risking tooth decay.

All children should be taken to the dentist every six months.

Foods that damage your teeth

Annoyingly, there aren't any foods that are actually good for your teeth. But some are worse than others.

The two worst things for your teeth are sugar and acid. So we need to watch out for foods and drinks that contain these things.

Sugar

Sweets. Chocolates. Toffees. These are all rammed with sugar. When you eat sugar, bacteria in your mouth eat it too. They use this sugar to cause decay; holes in your teeth.

Cereals; it's not always what springs to mind when you think of sugary food but some cereals are jam packed with sugar.

Yoghurts; similarly can be packed with sugar. Milk can also be very sugary, as mentioned above.

Acid

Fizzy water is acidic.

Annoyingly, most fruits and fruit juice are full of sugar and acidic. Obviously fruit and veg are full of vitamins and are really important to a balanced diet. Just be aware of the effects that they can have on your teeth.

Fizzy pop is the worst culprit for damaging your teeth. This stuff is full of sugar and extremely acidic. This stuff can wash away your enamel and making holes in your teeth like nobody's business.

And don't think you can get away with it by having diet drinks. Diet pop is still extremely acidic and will wash away the surface of your enamel in a flash.

So what do we do?

How do we minimise the damage to our teeth? Well, the point is that you can have anything but in moderation. We need to be sensible. Avoid grazing on snacks throughout the day. If you are snacking all of the time, your teeth never get a rest and they are under constant attack from foods and sugar.

You need to keep sugary foods to meal times and cut out the snacking. This decreases the number of attacks on your teeth by sugar.

Diet diaries with the kids or the example diaries are a great way to get them thinking.

Watch out for those sneaky sugars because they are everywhere.