

COUNDON PRIMARY

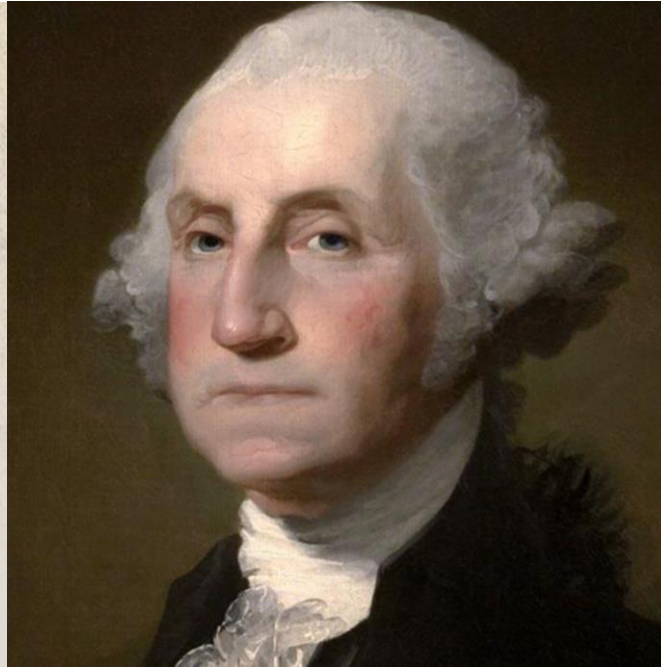


YEAR 4 SCIENCE - TEETH

Home Learning week beginning 27th April 2020

DID YOU KNOW?

- The first president of the United States of America, George Washington, wore false teeth made out of teeth from a cow, hippopotamus and walrus!



QUESTIONS

Think like a Scientist:

- Why are teeth so hard and what would happen if they were made of something softer?
- How are our teeth different from other animals' teeth?
- What types of food and drink are worst for our teeth?
- What's the best way to brush your teeth?
- How do you become a dentist?

LESSON 1



K.S: To understand how teeth develop in humans

Introduction:

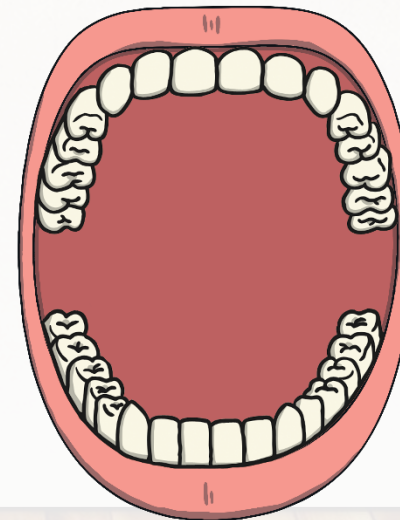
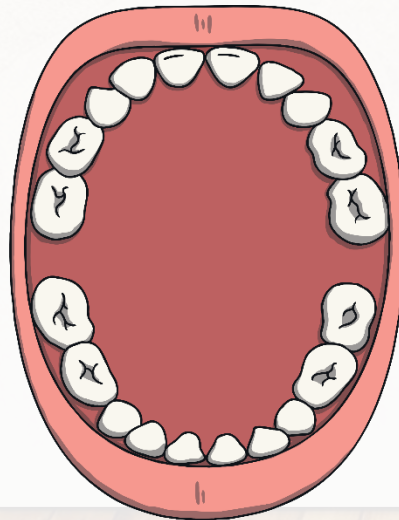
Humans are omnivores, meaning we eat both plants and animals, and our teeth have evolved to suit our diet. Our canines are smaller than a carnivore's and we have flat molars to help us chew our food before swallowing, as plant material needs grinding before we can digest it. Our first set of teeth is known as our milk teeth. There are 20 teeth in total at this point: eight incisors, four canines, four premolars and four molars. Foods that are high in calcium, such as milk and other dairy products, are important in the formation of teeth and bones, and keep them strong and healthy, which is why children, who are growing bigger bones and new teeth, need full-fat (whole) milk and other dairy products as part of their diets. Between six and 12 years old, our milk teeth are gradually replaced with permanent teeth. There is a third set of molars called 'wisdom teeth' which appear in our late teens - although they may not come through at all. This means adults have 32 teeth. The jaw gets bigger as we grow older, so there is space for those teeth to appear. The human mouth contains 12 molars, eight premolars, four canines and eight incisors. The outer layer of tooth is called enamel. It is one of the hardest substances in the body. Below enamel is a layer of softer dentine and inside the tooth is the pulp, which contains blood vessels and nerve endings. Bacteria in the mouth eat away at enamel and cause plaque. If plaque is not removed regularly, it can build up and harden to form tartar, which builds up on our teeth and is difficult to remove. Some foods can stain our teeth, such as tea and coffee.

- The first set of teeth we have are called milk teeth.
- Children have 20 milk teeth.
- As we get older we lose them, and our adult teeth grow.
- Adults have 32 teeth.
- Why do you think we lose teeth as we grow up?

HUMAN TEETH

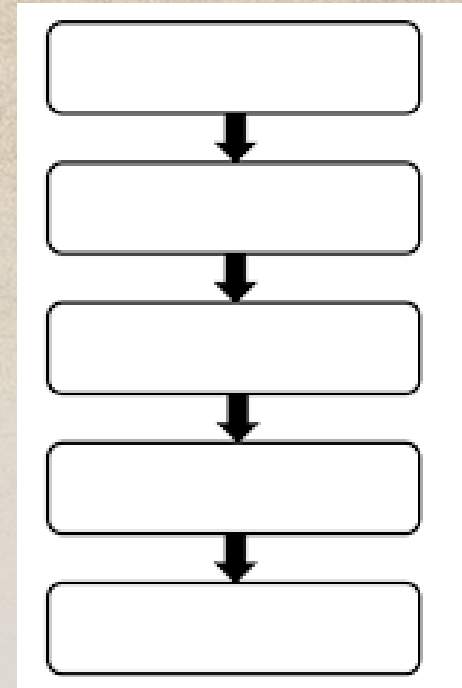
The first set (milk teeth) usually begin to grow when a baby is about six months old.

Children begin to lose these teeth at around the age of six, when new (adult) teeth begin to grow.



ACTIVITY

- Research teeth (online or in books), and draw a flow diagram showing the development of teeth in a human from birth to adult.



LESSON 2

KS: To identify the different types of teeth and their simple functions

TYPES OF TEETH (HUMANS)

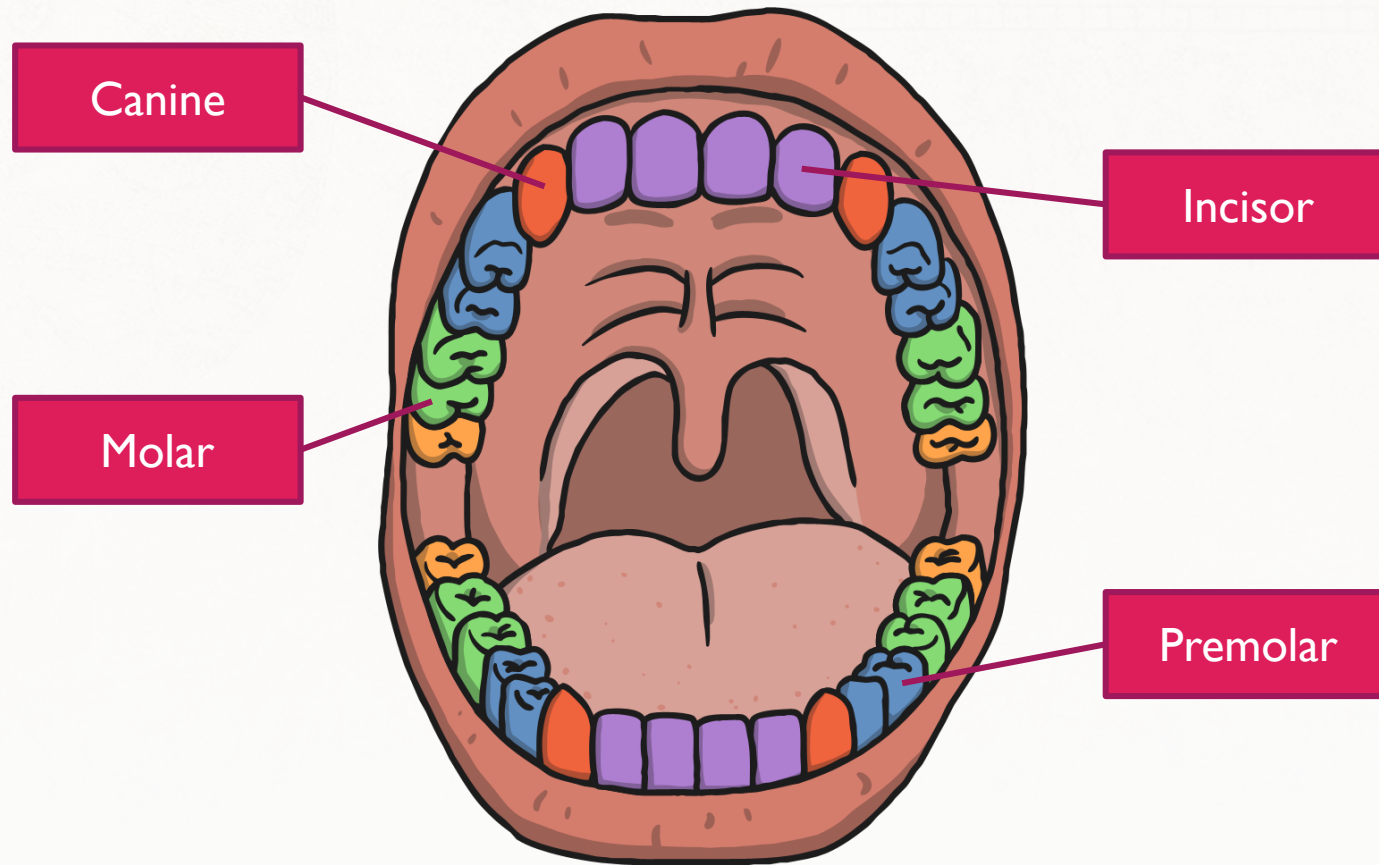
Your teeth are one of the strongest parts of your body. They're made from proteins, and minerals such as calcium. In addition to helping you chew through even the toughest foods, they also help you speak clearly.

- Most adults have 32 teeth, called permanent or secondary teeth:
 - 8 incisors
 - 4 canines, also called cuspids
 - 8 premolars, also called bicuspid
 - 12 molars, including 4 wisdom teeth
- Children have just 20 teeth, called primary, temporary, or milk teeth. They include the same 10 teeth in the upper and lower jaw:
 - 4 incisors
 - 2 canines
 - 4 molars
- Primary teeth start to come through the gums when a baby is about 6 months old. The lower incisors are usually the first primary teeth to come in. Most children have all 20 of their primary teeth by age 3.
- Children tend to lose their primary teeth between the ages of 6 and 12. They're then replaced by permanent teeth. Molars are usually the first permanent teeth to come in. Most people have all of their permanent teeth in place by the age of 21.

Watch

<https://www.bbc.co.uk/bitesize/topics/z27kng8/articles/zsp76yc>

TYPES OF TEETH



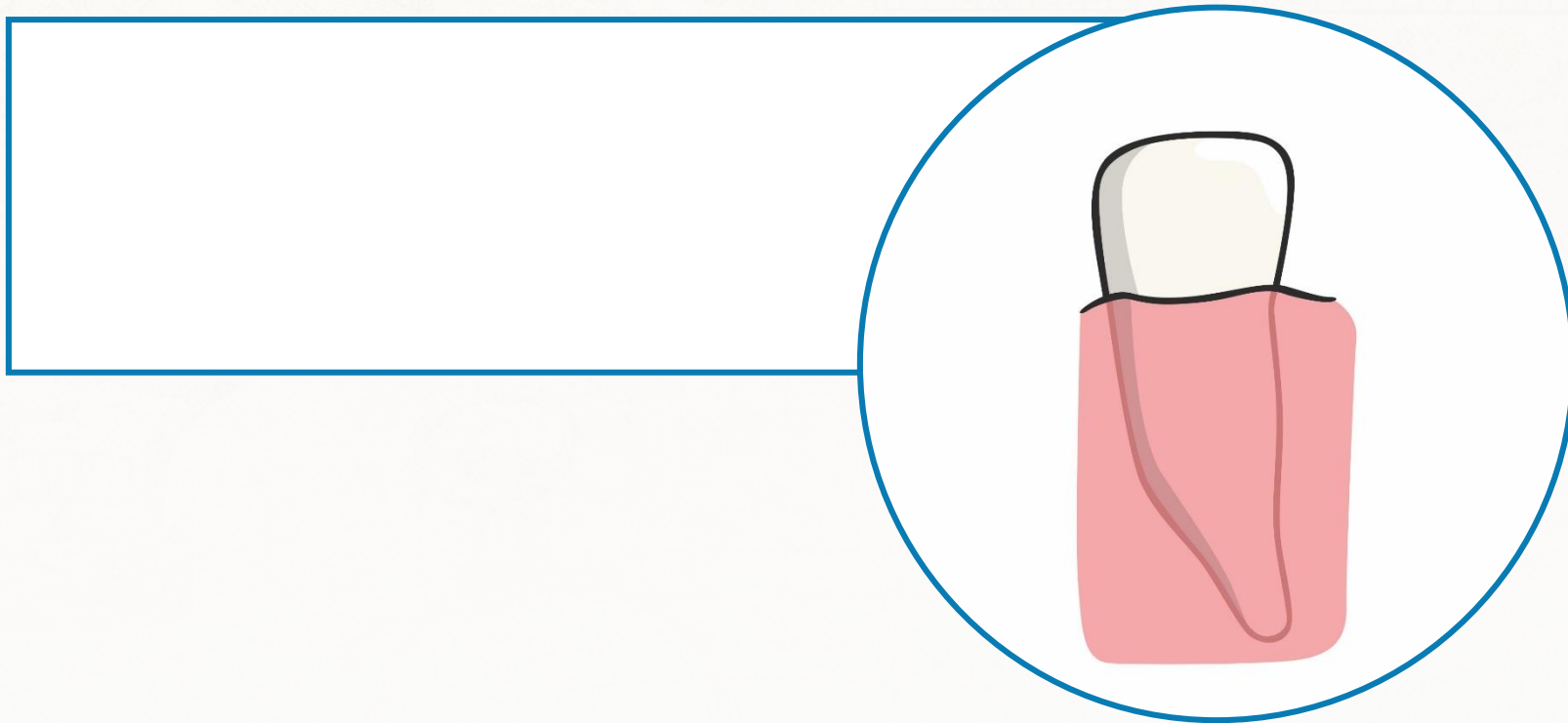
INCISORS

We have eight incisors – they are the middle four teeth on the upper and lower jaws.

Their function is to bite off or slice food.



INCISORS



Did You Know?

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CANINES

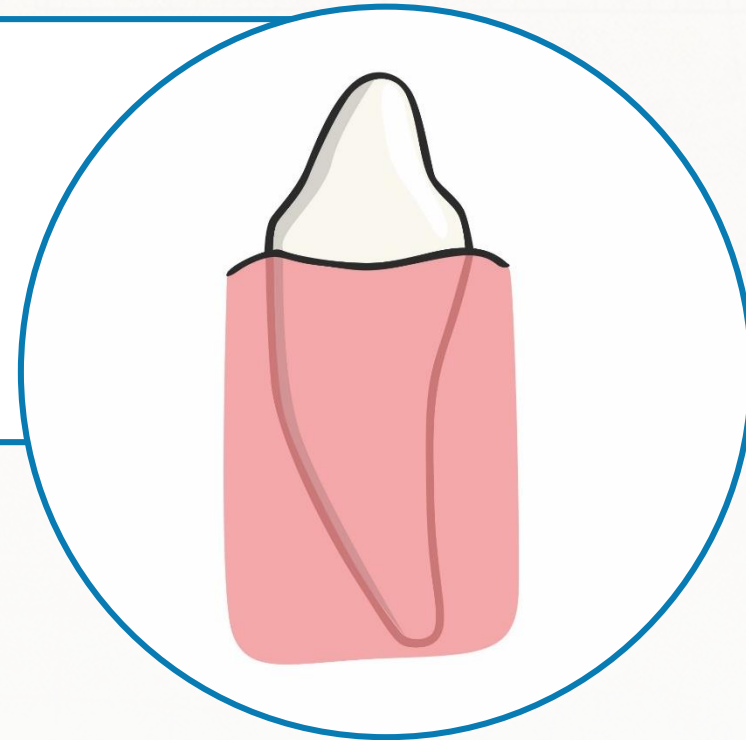
We have four canines – they are sharp and pointy and sit next to the incisors.

Their function is to tear food.



CANINES

used for ripping and tearing food.
Your canines are either side of your incisors
and you have four of them. The word
'canine' means 'something connected
to dogs'.



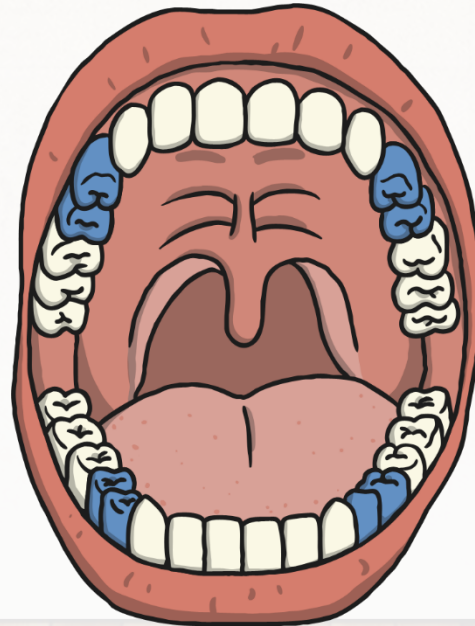
Did You Know?

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PREMOLARS

Humans have premolars (the teeth between the canines and molars).

The function of premolars is to crush and tear food.



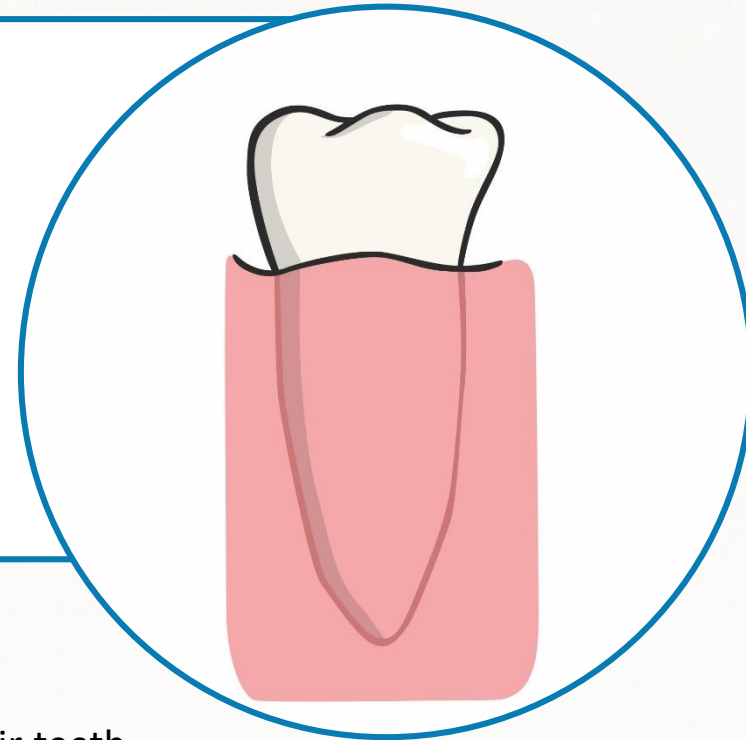
MOLARS

Humans have eight molars (the large, flat teeth at the back of the jaw).

Molars grind down food before it is swallowed.



PREMOLARS AND MOLARS



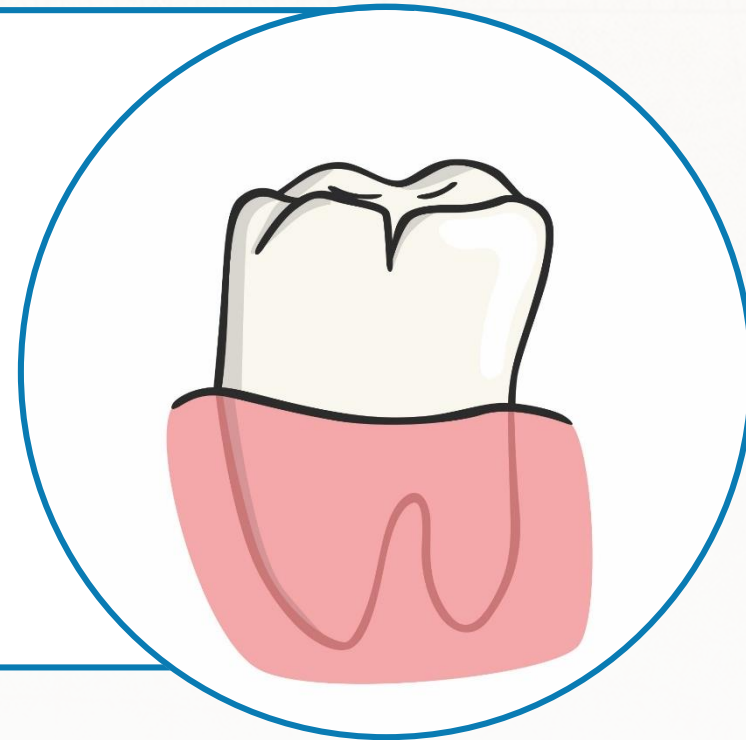
Did You Know?

Babies are born with all their teeth, even their adult ones! The teeth just haven't

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WISDOM TEETH

coarser, rougher food. They needed an extra set of molars to chew up the food. Over time, humans'

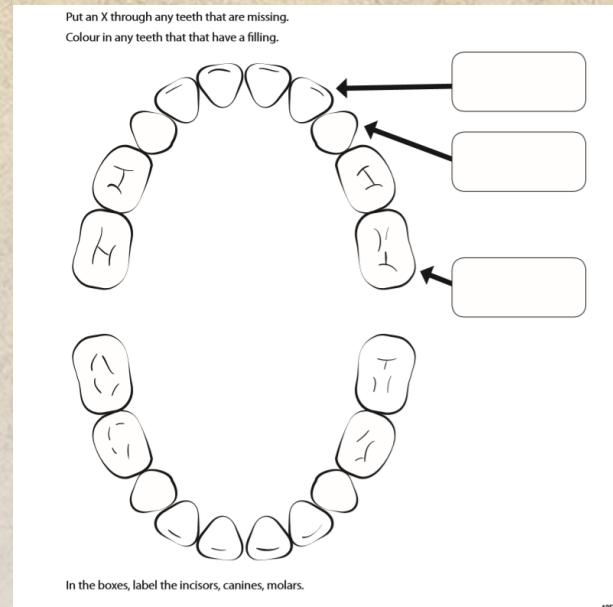


Did You Know?

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ACTIVITIES

- Get a small mirror and copy a diagram of (or print out the following), and label the different teeth in a human mouth. You should mark which teeth are missing /filled/adult/milk.



- Research and create an information page about the 3 types of teeth and their functions.

Draw a line between the name of the teeth and the correct description.



Canines

These teeth are for biting lumps of food.
They are at the front of the mouth.

Molars

These teeth are the pointy ones.
They can tear and rip food.

Incisors

These are the big teeth at the back of the
mouth that grind up the food until it is
small enough to digest.

Write a description of the different teeth in a human mouth. Make sure your description answers the following questions: What shape are they, where are they positioned in the mouth and what is their job? There are some words in the vocabulary box to help you.



Molars are for

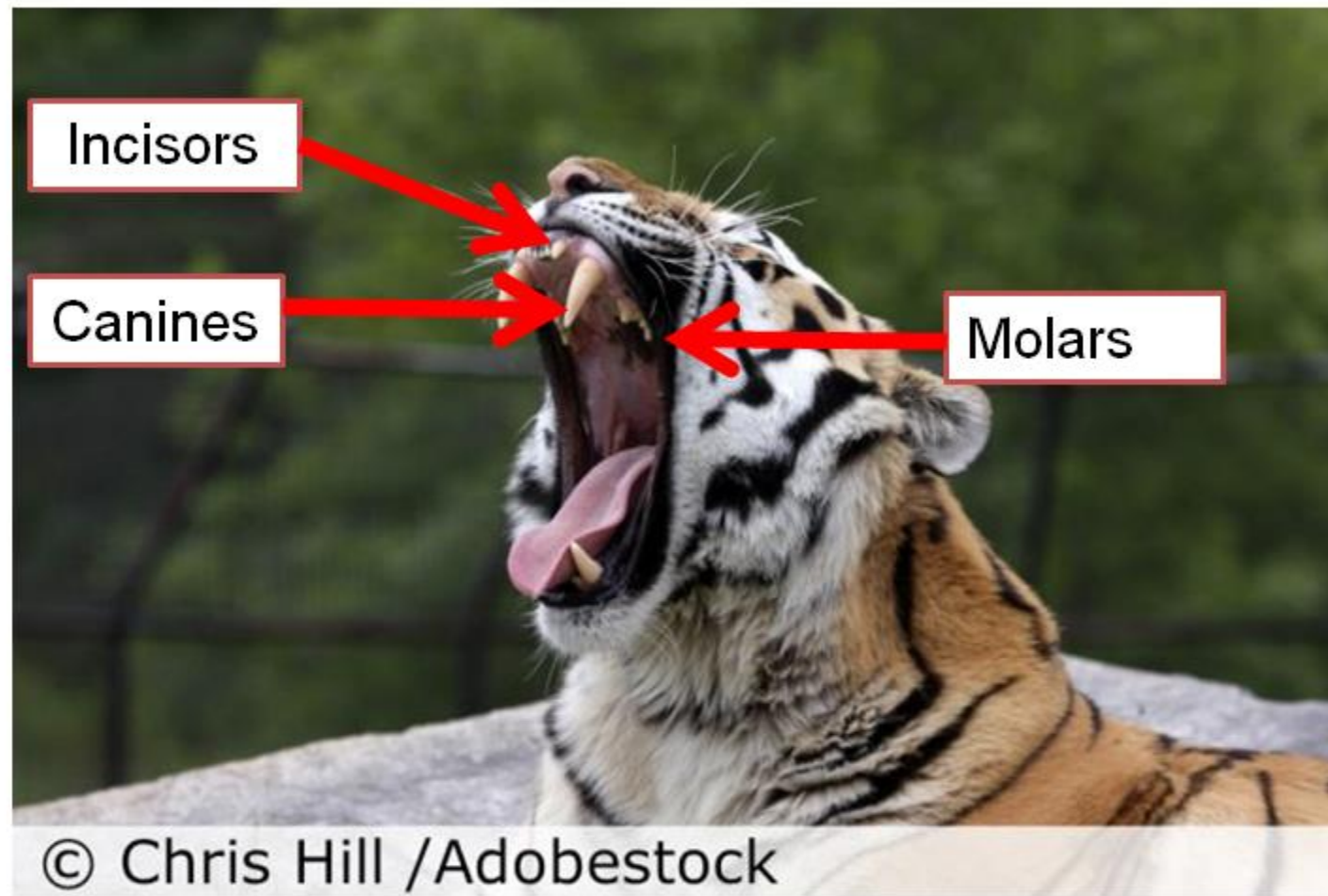
Incisors are for

Canines are for

grind bite tear pointed large and flat thin and sharp

Carnivores, herbivores and omnivores:

All living things need energy to survive. Plants are able to use the energy from the Sun to produce their own food. Animals are unable to make their own food so have to eat other living things to get their energy. Some animals have adapted to eating only other animals and get their energy from meat. These animals are known as carnivores. Animals that eat other animals are known as predators, with the animals that they eat known as prey, whether they are herbivores or carnivores. Some animals, including humans, have a diet comprising both animals and plants. These animals are known as omnivores. Well-known omnivores that the children might be familiar with include pigs, hedgehogs and rats. The teeth of carnivores are long and pointed. They have particularly long canine teeth to grip and kill their prey quickly. The incisors at the front of the mouth are used to strip flesh from the bones. Meat is easier to digest than plants, so does not need to be chewed so much. Plant material, however, is tougher to break down. Therefore herbivores' teeth are different from carnivores'. They have large, flat molars (back teeth) with ridges to help grind plants. Many do not have upper incisors, but instead a bony pad on their upper jaw. Herbivores can spend a long time chewing before the food is finally swallowed. They also have special bacteria in their guts to help break down plants.



Carnivores have long pointed canines to grab prey. They have sharp molars for slicing meat.

Incisors

Molars

©efendy/shutterstock

Herbivores have wide, flat molars for grinding plants. The incisors are used to snip and gnaw. They don't have canines.

Whose teeth are these?



Copy and complete the following sentences, explaining your reasoning.

I think the first skull belongs to a _____ because

I think the second skull belongs to a _____ because

LESSON 3

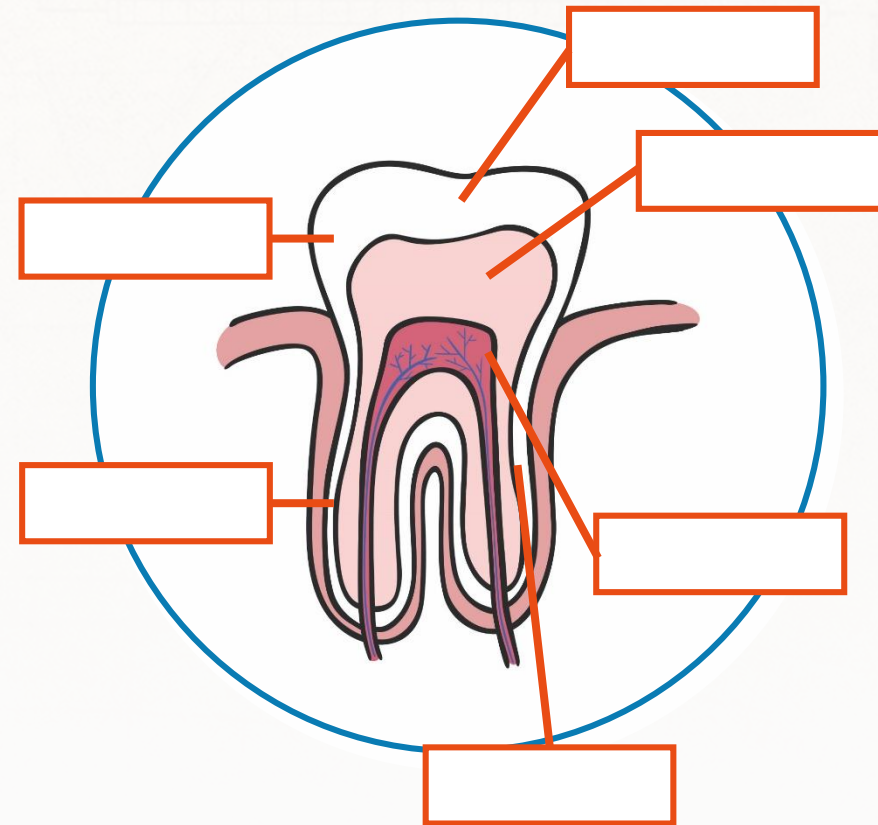
KS: To understand the different parts of
teeth



- Why are teeth so hard and what would happen if they were made of something softer?



INSIDE A TOOTH



THE DIFFERENT PARTS OF TEETH

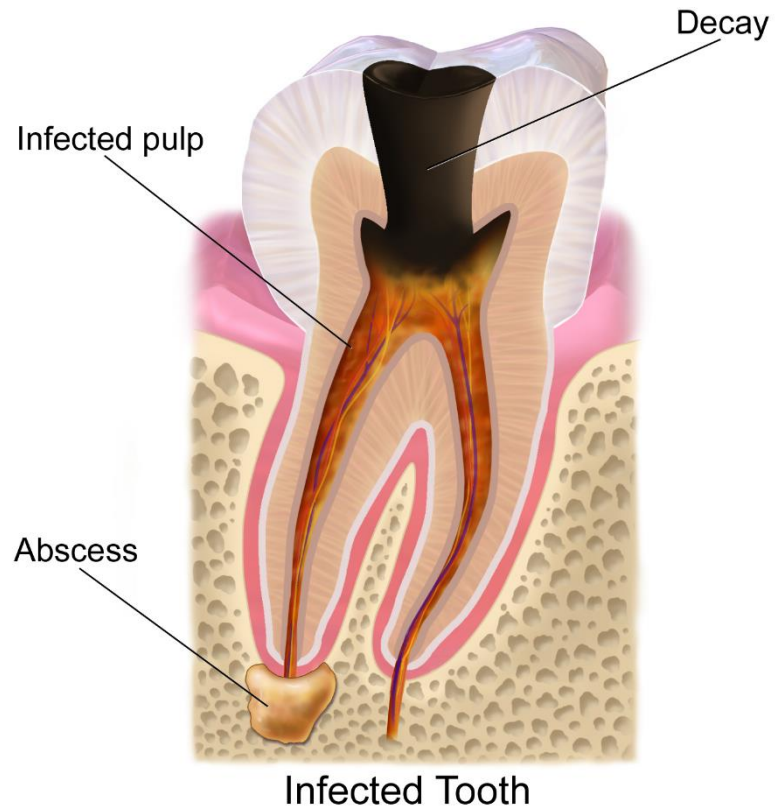
Research the different parts of a tooth, draw/print diagram below, and label, a diagram showing the different parts of a tooth.



LESSON 4

KS: To set up a simple practical enquiry,
gather, record, classify and present data

TOOTH DECAY



Discuss the following questions with your talk partner:

What is tooth decay?

What causes tooth decay?

How do you know?

EGGSPERIMENT!

- Think about what you know is not good for your teeth, for example fizzy drinks.
- You are going to set up an experiment over time to find out how drinks affect our teeth.
- Ask an adult for 2 or 3 hard boiled eggs:

Egg shells are made of calcium, the same material as teeth. Think about 2/3 liquids, for example fresh orange/apple juice, high-sugar orange cordial, Lucozade, Coca Cola (not Diet!), vinegar, water.

- If you can, leave the eggs to soak in each of the liquids. Leave one egg in just plain tap water. You might need to renew some of their liquids after a day or two, for example vinegar.
- At the end of say a week to ten days, you should compare their egg with the egg left in water.
- Watch video <https://www.bbc.co.uk/bitesize/clips/znrb4wx>

RESULTS / CONCLUSION

- What has happened to the egg shells?
- Describe the changes.
- Draw an annotated diagram (or take photos) and put into a results table. Include sentences using correct scientific terminology and in the correct tense about your results and conclusions.
- Think about the different ways to look after your teeth and draw conclusions about the effect of different liquids on your teeth and what you could do to prevent damage.

LESSON 5

KS: To understand how to look after my teeth

Following on from last lesson, watch video: 'Teeth and Healthy Eating':

https://resources.risingstars-uk.com/MyRsTitles/Switched_on_Science_Year_4_2nd_edition_TL_9781510450868/b7559eab-9a38-4ddc-b1c2-f0192542d9bd/Resources/PV_Y4_Topic_4.mp4

(you will need to copy and paste this into your browser).

HOW TO CARE FOR YOUR TEETH

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ACTIVITY

- Research how to look after your teeth.
- Useful websites:

<https://www.dentalhealth.org/>

<https://www.dentalhealth.org/pages/category/all-oral-health-information>

<https://www.nhs.uk/live-well/healthy-body/taking-care-of-childrens-teeth/>

<https://www.mydentist.co.uk/dental-health/dental-treatments/kids-club>

- Create a video (like the Singing Dentist), TV advert or poster for how to keep teeth healthy.

What have you found out about your teeth?

What can you do to make sure that your teeth and gums stay healthy?



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