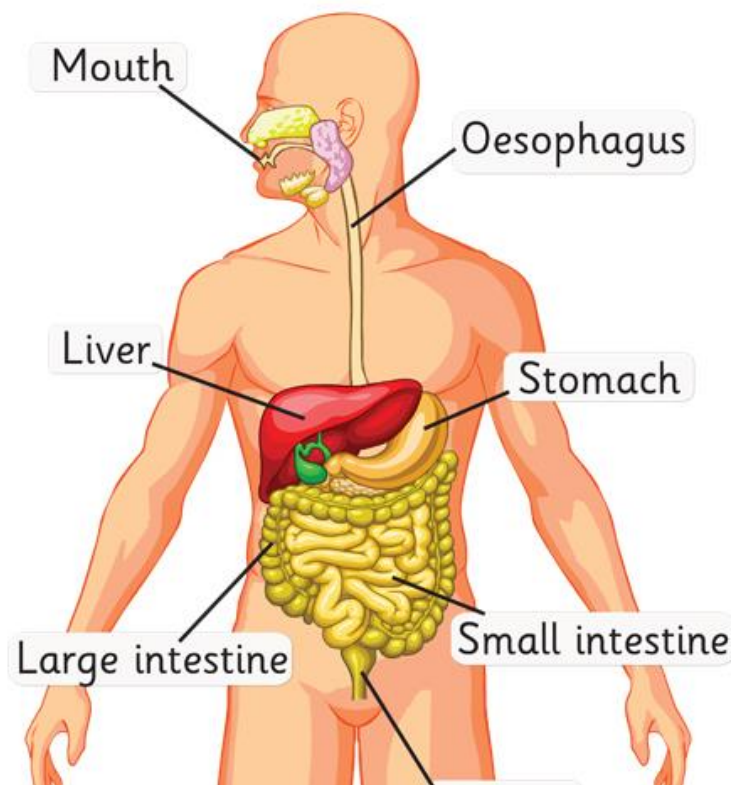
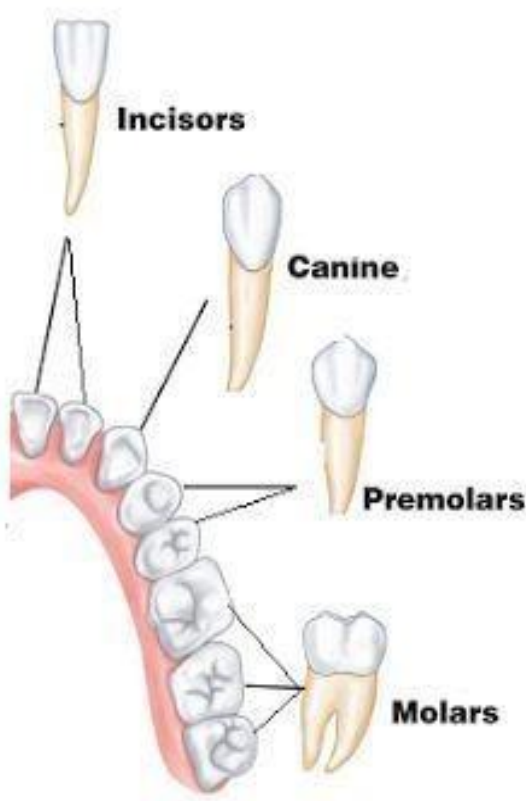


Animals (Inc. Humans)



Name _____

Class _____

Science Year 4 Spring II ANIMALS (Inc. Humans)

Prior learning

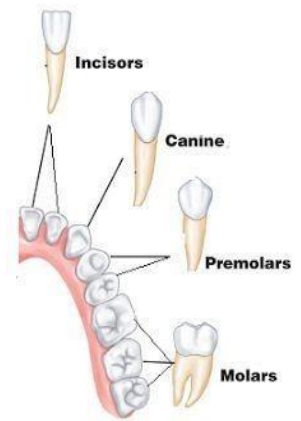
KS 1: all animals need food for survival (carnivores, herbivores and omnivores); and how important it is to eat the right amounts of different foods.

Curriculum Links

History: Explore how people used to look after their teeth, or not, and what going to a dentist was like in the past.

ICT: Create a short documentary on predators and prey

Eco/ PSHCE Links: Identifying how humans are dependent on animals and plants for survival



Core Learning of this unit

- Humans have four types of teeth: **incisors, canines, premolars and molars**
- Animals' teeth have evolved to suit their diet. Carnivores need canines and incisors to grip and rip meat; herbivores need molars to grind plants.
- As omnivores, humans have both canines and flat molars
- Parts of the **human digestive system** include: **mouth, tongue, teeth, oesophagus, stomach and small and large intestines**
- Predators are animals that eat other animals; the animals that they eat known as **prey**

Working Scientifically

- Use the **results** of comparative and **fair tests** to explain why we must take care of our teeth
- **Explore questions** to understand special functions of different organs of human digestive system
- **Compare** our teeth to those of other animals and suggest reasons for differences
- **Construct** and interpret a variety of **food chains**, identifying producers, predators and prey

Vocabulary:

Molar: a tooth for grinding food at the back of the mouth.

Incisor: a tooth for biting food, at the front of the mouth.

Canine: a tooth for gripping food, a pointy tooth.

Enamel: the hard covering of the tooth.

Decay: what happens when teeth aren't cared for.

Digestion: breaking down food.

Mouth: where digestion starts and food gets into the body.

Oesophagus: the scientific name for the food pipe.

Stomach: a bag of muscle used in the first part of digestion.

Small intestine: the thin tube where broken down food is absorbed.

Large intestine: absorbs water and stores undigested food.

Anus: the end of the digestive system where unwanted food leaves the body.

Significant People

Lisa Milella is a veterinarian dentist, who is known as the 'bear dentist' for helping India's endangered bears.



ANIMALS (Including Humans): GLOSSARY

molar	A tooth for grinding food at the back of the mouth
incisor	A tooth for biting food, at the front of the mouth
carnivore	A tooth for gripping food, a pointy tooth
enamel	The hard covering of the tooth.
decay	What happens when teeth aren't cared for
digestion	Breaking down food.
oesophagus	The scientific name for the food pipe
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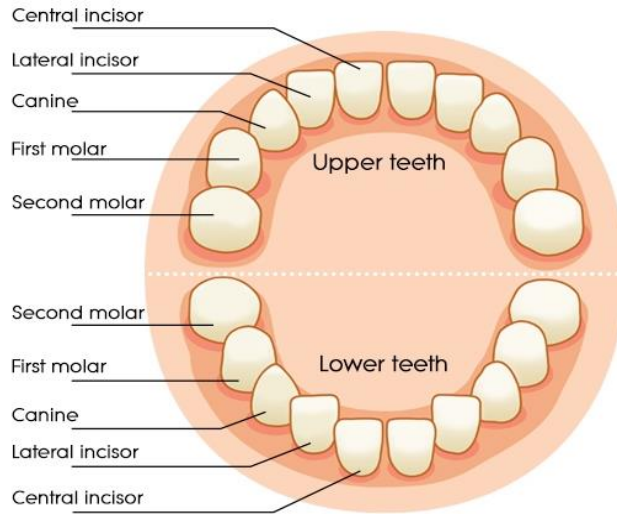
Lesson 1: Tooth Map



I can recognise the four groups of teeth and their functions.



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.

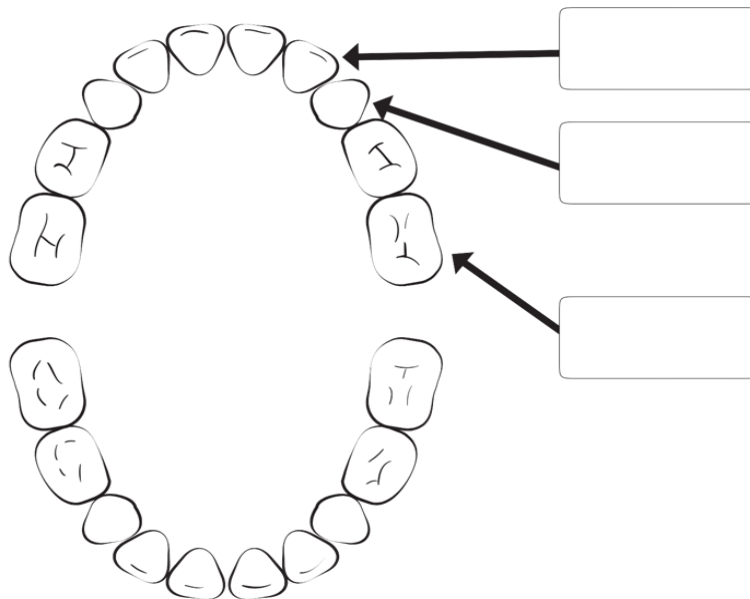


Our first set of teeth is known as our milk teeth. There are 20 teeth in total at this point: eight incisors, four canines, four premolars and four molars.



Ask a partner to use a mirror to look at your teeth. Imagine the map below is a map of your own mouth.

Put an X through any teeth that are missing.
Colour in any teeth that have a filling.



Match the teeth and their functions.

molars ●

incisors ●

canines ●

● Chomping and grinding food

● Piercing and biting off pieces of food

● Tearing and gripping the food

Lesson 2: First Impressions



- I can identify and name the different parts of the human digestive system.



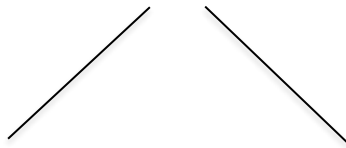
Between six and 12 years old, our milk teeth are gradually replaced with permanent teeth. There is a third set of molars called ‘wisdom teeth’ which appear in our late teens – although they may not come through at all. This means adults have 32 teeth.



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.



Why do you think we lose teeth as we grow?



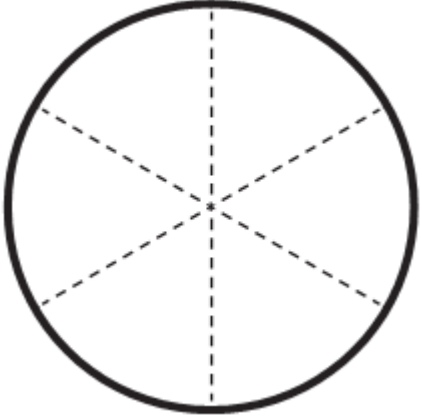
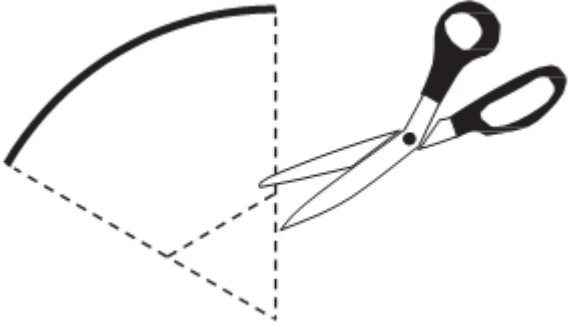
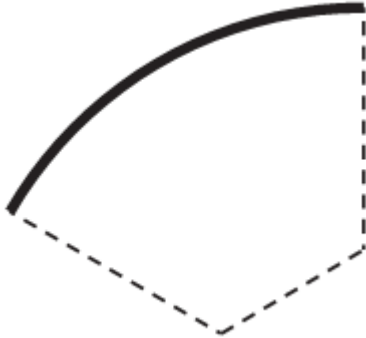
Following are some dental care products.



How do you think these help to keep your teeth strong?



<http://www.sunshineclinic.org/blog/ways-to-keep-your-teeth-healthy/>

<p>1. Divide the polystyrene plate into six equal wedges (like a pizza)</p>	
<p>2. Cut along the lines to make six wedges.</p>	
<p>3. Take two of the wedges and put one on top of the other together. Cut off 3 cm from the pointed end of the wedges.</p>	
<p>4. Place two wedges into your mouth as far as possible.</p> <p>5. Bite down on the wedges as firmly as you can.</p> <p>6. Label the top and bottom wedges 'Top teeth' and 'Bottom teeth'.</p>	



- a) Count the number of teeth marks in the top and bottom impressions.
- b) Compare your top teeth to the bottom.
- c) Are there teeth missing, spaces or chips?
- d) Compare your teeth impression to your partner's.
Do they look the same? How are they the same/different?

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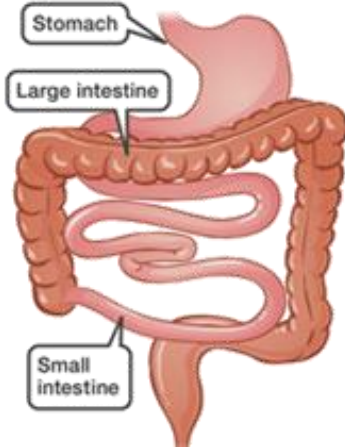
Lesson 3: Food's incredible journey



- I can describe the special functions of different organs in the human digestive system.



Digestion starts in the mouth. Teeth provide mechanical breakdown of the food, then saliva moistens food so that it slides down the oesophagus into the stomach.



The stomach is a bag of muscle that breaks up food by churning it around. It also contains hydrochloric acid, which kills off bacteria in the food, and enzymes, which further break down.

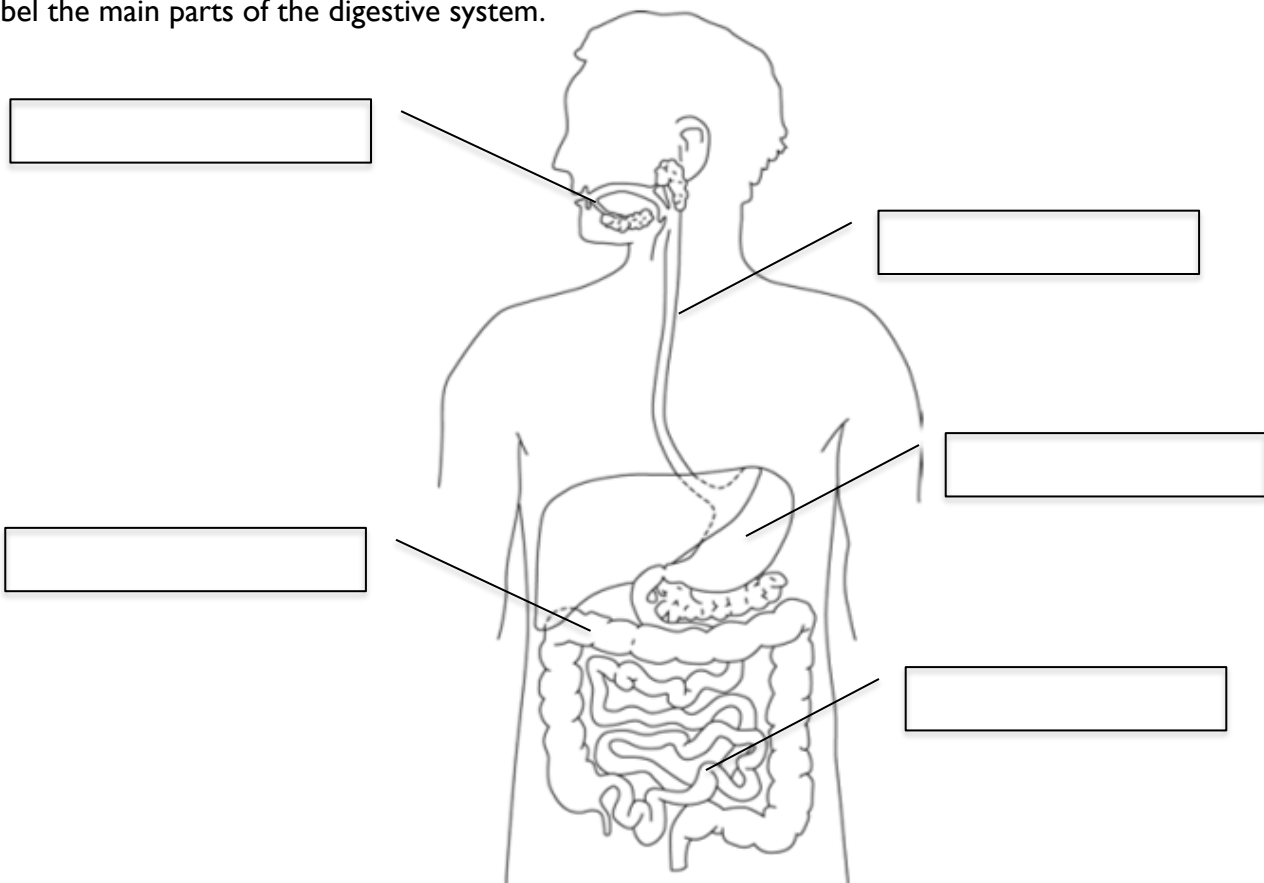
After a few hours in the stomach, food travels down the duodenum (small intestine), where it is broken down further and sends the nutrients around the body in the blood.

The solid waste such as fibre that can't be digested continues along into the large intestine, where water is removed. Then this passes out of the body via the colon and the anus.



<https://www.youtube.com/watch?v= QYwscALNng>

Label the main parts of the digestive system.





Use scientific language to explain the human's digestive system.

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In humans, the small intestine is about 6 meters or 20 feet long and the large intestine is about 1.5 meters or 5 feet long.



Lisa Milella is a veterinarian dentist, who is known as the 'bear dentist' for helping India's endangered bears.

Lesson 4: The teeth say it all!



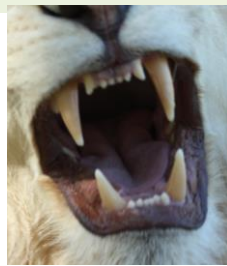
- I can compare humans' teeth to those of other animals and suggest reasons for differences.



Some animals, including humans, have a diet comprising both animals and plants. These animals are known as omnivores. Well-known omnivores that you 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.



Give examples of animals that belong to these categories.

Carnivore	Herbivore	Omnivore

What do you think these animals will eat? How do you know?



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Lesson 5: Who do you eat?



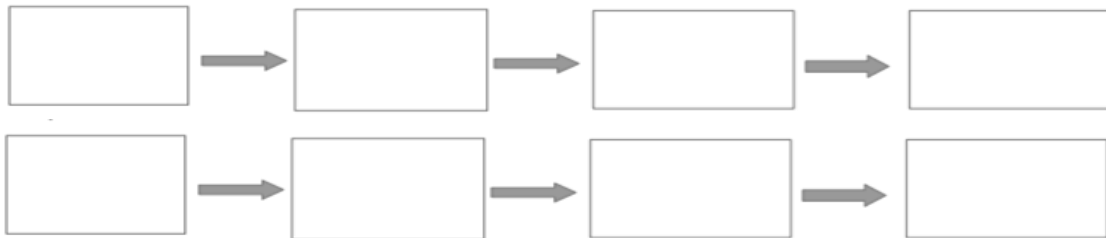
- I can conduct and interpret a variety of food chains.



Research to find evidence of consumers, producers and prey.

	Producer	Consumer	Prey
Example 1			
Example 2			
Example 3			

Build up food chains based on what you find.



Act our food chains.



Where do the green plants get their energy from as a producer?

What in the food chain above is a secondary consumer? Why?

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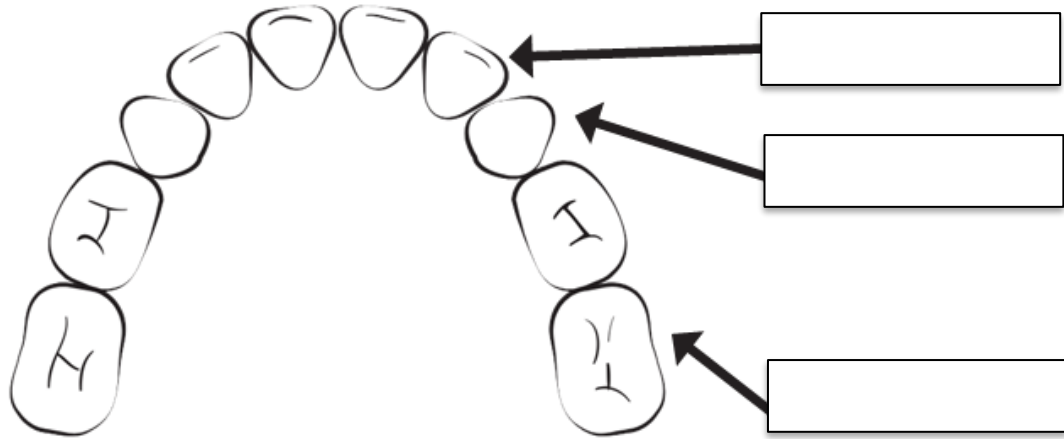
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End of Topic Assessment



1. Label the different types of teeth here.



2. What are the functions of the following teeth?

Incisor:

Molar:

Canine:

3. Read the following statements and write 'true' or 'false' next to it.

Statement	True or false
Carnivores use their canines more than herbivores.	
Molars are used to tearing food.	
A giraffe grinds food using incisors.	
Enamel keeps teeth strong.	
Toothpaste helps to fight tooth decay and keep teeth strong and healthy.	
Plaque appears on teeth if they are not cared for.	

4. Name three parts of the body that are involved in digestion.

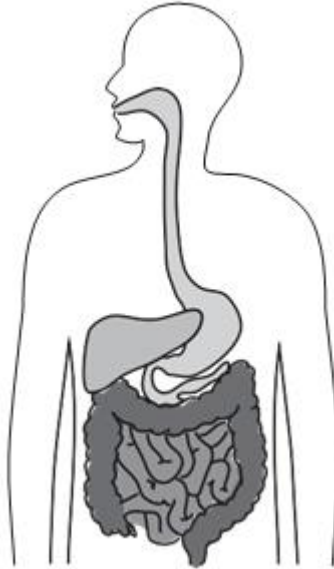
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5. Name two things that happen to food in the stomach.

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6. Look at the diagram of the digestive system below with the following.

mouth **stomach** **small intestine** **oesophagus** **anus** **large intestine**



7. What is missing in this food chain? Draw and write the name of the animal or plant

