

Year 4 Spring Term Science Knowledge Organiser

KEY QUESTION: How do classify different animals and represent their feeding relationships?

GROUPS OF LIVING ORGANISMS

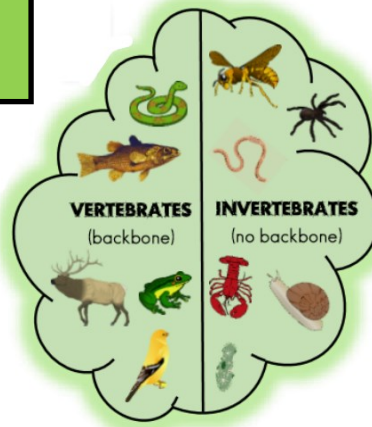
Mammals - warm-blooded, have hair on their bodies, parents care for the young, females produce milk for their babies, breathe through lungs, most are terrestrial (live on land) though some are aquatic (live in sea).

Birds - warm-blooded, most can fly, have feathers and wings, most build nests, hatch from eggs, most baby birds must be fed by parents and cared for until they can survive on their own (though some, like baby chickens and quail, can search for food a few hours after hatching)

Fish - aquatic animals, breath through gills, cold-blooded, most have scales, most develop from eggs that the female lays outside her body

Amphibians - live part of their life cycle in water and part on land, have gills when young, later develop lungs, cold-blooded, usually have moist skin.

Reptiles - hatch from eggs, cold-blooded, have dry, thick, scaly skin



Predators hunt and eat other animals.
Prey are hunted by predators.

FOOD CHAINS

Decomposer

Feeds by decomposing the remains of living things.



Consumer

Eats the producer.
(Secondary consumers eat the primary consumer.)



Producer

Produced from an energy source (e.g. the sun) such as plants.



Lifecycle Vocabulary

classify	Live young	producer	reproduction
mammal	Warm-blooded	plants	canine
bird	Cold-blooded	consumer	premolar
fish	Hair /fur	movement	molar
amphibian	scales	respiration	incisor
reptile	lungs	excretion	oesophagus
vertebrate	gills	nutrition	stomach
invertebrate	predator	sensitivity	intestines
eggs	prey	growth	digestion

MRS GREN

MRS. G.R.E.N. is a useful way to remember the necessary features of living organisms.

MOVEMENT

It can change its position.

RESPIRATION

It releases energy from a food source.

SENSITIVITY

It responds to things (e.g. light).

GROWTH

It can develop and get larger.

REPRODUCTION

It can make copies of itself or produce offspring.

EXCRETION

It can get rid of waste products.

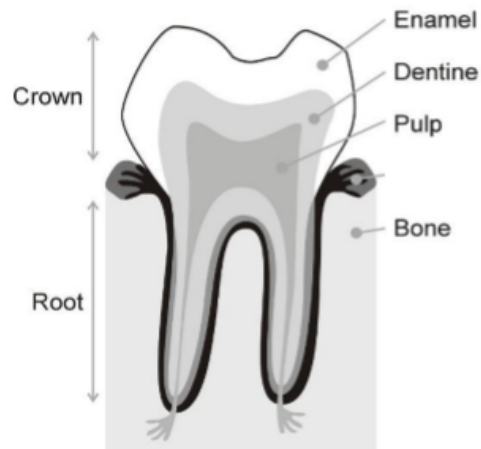
NUTRITION

It consumes chemical material / food.



Carl Linnaeus simplified the naming of living things in 1735. Names of living things were often very long so he gave them a two-part (binomial) name. It was a mixture of genus and species (and in Latin) e.g. Human was Homo Sapien, Wolf was Canus Lupus and Lion was Felis Leo.

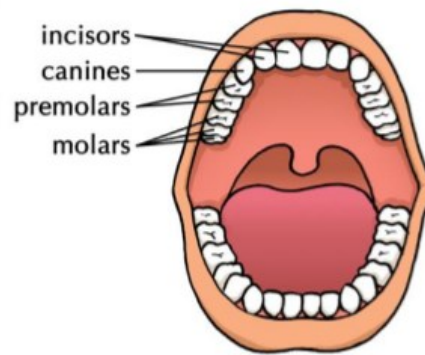
Parts of the Tooth



Enamel: The visible part of the tooth. It is harder than bone and protects the tooth.

Dentine: Found underneath the enamel and is similar to bone.

Pulp: Found in the centre of the tooth and is full of blood vessels and nerves. It supplies the tooth with nutrients.



INCISORS - At the front of the mouth and used for biting

CANINES - Sharpest teeth. Next to incisors and used for tearing. Sharp and pointed in predators for killing prey.

PREMOLARS - Flat, wide and used for chewing towards the back of the mouth.

MOLARS - At the back of the mouth. Used for chewing and grinding food. Wide and flat in shape, including wisdom teeth at the back which appear in adulthood.

Mouth - Where food first enters the body. It is chewed and mixed with saliva, then swallowed.

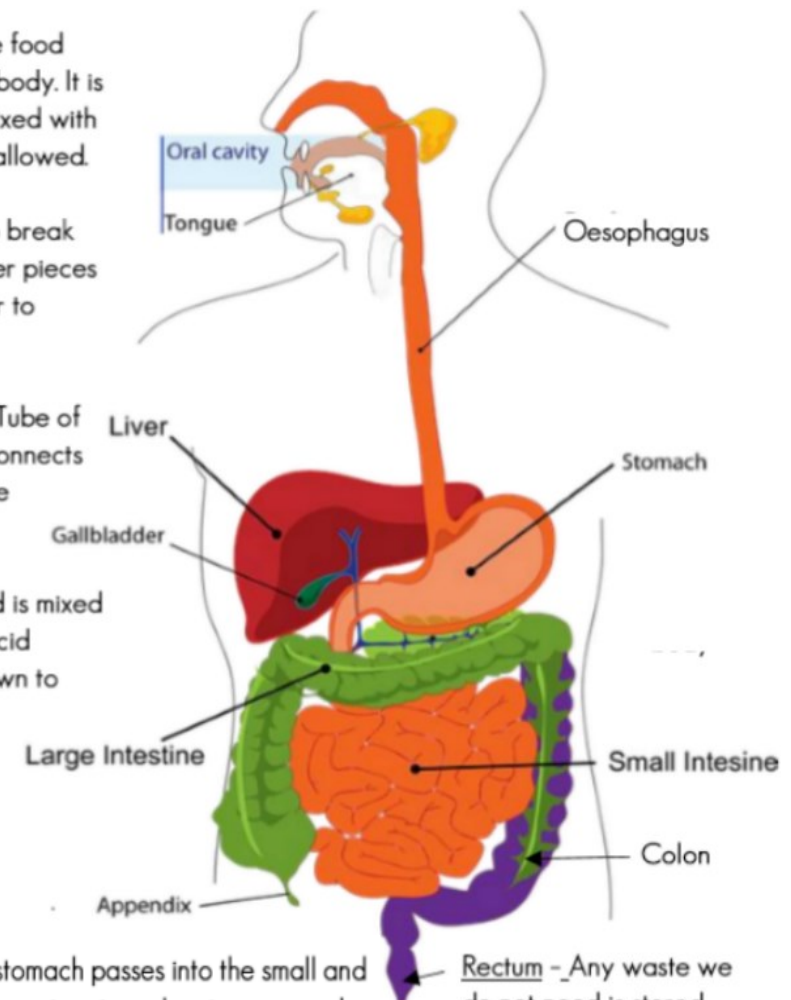
Teeth - Used to break food into smaller pieces making it easier to swallow.

Oesophagus - Tube of muscle which connects the mouth to the stomach.

Stomach - Food is mixed with stomach acid and broken down to form a liquid.

Intestines - Liquid from the stomach passes into the small and large intestines. This is where nutrients and water we need is passed into the blood stream and transported around our body

Rectum - Any waste we do not need is stored here until it is ready to leave the body.



TOOTH DECAY



Tooth decay is the destruction of your tooth enamel

Plaque, a sticky film of bacteria, constantly forms on your teeth.

When you eat or drink foods containing sugars, the bacteria in plaque produce acids that attack tooth enamel.

Activities to complete at home. Bring in your work over the next 4 weeks so it can be celebrated and shared .

1. Research and create a food chain mobile linked to the Ocean habitat.
2. Conduct an animal survey in your garden or local park. Draw or photograph your discoveries and classify into the correct group.
3. Design a poster to promote how to look after teeth and protect against tooth decay.
4. Be creative! Drawing, paint or make a 3D model of an animal or create a game to help people learn about the different animal groups

