

## Medium Term Plan: Supporting Implementation of LTP/Progression Grid

**Subject: Science      Year: LKS2 year 4 – Animals including humans (Digestive system)**

**NC/PoS:**

- describe the simple functions of the basic parts of the digestive system in humans
- identify the different types of teeth in humans and their simple functions
- Construct and interpret a variety of food chains, identifying producers, predators, and prey.

**Prior Learning (what pupils already know and can do)**

That the skeleton protects and supports the body. That to keep the body healthy a balanced diet must be eaten consisting of carbohydrates, fats, fibre, minerals and vitamins, protein, and water. Animals get their food from what they have eaten. Also, it is important to exercise and have good hygiene. Know carnivores, herbivores and omnivores have different diets.

**End Goals (what pupils MUST know and remember)**

- Know that the digestive system breaks down food.
- Know the digestive system consists of mouth, tongue, oesophagus, stomach, small intestine, and large intestine
- Know the digestive system of a chicken includes mouth, tongue, oesophagus, stomach, small intestine, and large intestine
- Know the digestive system of most reptiles and amphibians include mouth, oesophagus, stomach, small intestine, and large intestine
- Know the digestive system of a salmon includes mouth, teeth, tongue, oesophagus, stomach, intestine
- Know that some animals have more than one stomach to aid digestion e.g. alligator, cow
- Know teeth are used to chew the food and break it up into bits
- Know the tongue helps to chew the food and swallow it
- Know that the oesophagus transports food to the stomach
- Know that in the stomach the food is churned up and broken down further
- Know in the small intestine the nutrients from the food are absorbed into the blood which transports them around the body
- Know in the large intestine water is absorbed into the body
- Know the four front teeth in both the upper and lower jaws are called incisors and are used to cut food.
- Know there are four canines in the mouth which tear food and form the corners of the mouth.
- Know the premolars are designed to crush and grind food.
- Know the molars, have broader and flatter surfaces and grind food.
- Know energy passes along the food chain
- Know all food chains, start with a plant which is a producer as it makes its own food
- Know that animals that eat plants are primary consumers
- Know that primary consumers may be eaten by secondary consumers or predators

**Key Vocabulary:** food chain, producer, consumer, predator, energy, prey, dependency, molars, premolars, incisors, canines, herbivores, carnivores, omnivores, diet, enamel, liquid, acidic, stains, weakens, mouth, saliva, tongue, teeth, oesophagus, stomach, small and large intestine, rectum, anus, digests, lubricates, pancreas, liver, gallbladder, acid, dissolve, dentist, nurse, orthodontist, gastroenterologist

**Session 1: review prior learning**

Name the 7 types of nutrients needed to fuel the body. How do they help the body? What is the job of the skeleton? Why is exercise and hygiene important? What do we call animals that just eat meat? Plants, fruit, and vegetables? Both?

Discuss careers linked to this unit:

Dentist/ orthodontist <https://www.youtube.com/watch?v=CIHc2B06PFc>

Nurse [https://www.youtube.com/watch?v=zkhvoJsH\\_5k](https://www.youtube.com/watch?v=zkhvoJsH_5k)

**A gastroenterologist** is a specialist with expertise in the disorders and diseases that affect the digestive system

**Vocabulary:** dentist, nurse, orthodontist, gastroenterologist

**Session 2: Recap: 7 nutrients and how they help the body. Name different diets for animals**

- Children learn teeth are used to chew the food and break it up into bits and the tongue helps to chew the food and swallow it. There are four canines in the mouth which tear food and form the corners of the mouth. The premolars are designed to crush and grind food. The molars, have broader and flatter surfaces and grind food. The four front teeth in both the upper and lower jaws are called incisors and are used to cut food.

**FOCUS:** to research teeth and their function

Watch <https://www.youtube.com/watch?v=th2ROcyH8Xw> up to 1.52 for information on teeth and their function

**FOCUS:** To compare teeth of carnivores, herbivores, omnivores

Carry on watching to up to 2.36 and <https://www.youtube.com/watch?v=YWwoQInSEeI>

Children research teeth of other animals and link to their diets

Nb. An animal's teeth are designed to suit the diet that they eat

**Vocabulary:** molars, premolars, incisors, canines, herbivores, carnivores, omnivores, diet

**Session 3: Recap: types of teeth and their function. How is type of teeth related to diet?**

**FOCUS:** to observe the effect of different liquids on the enamel of teeth

Watch rest of <https://www.youtube.com/watch?v=th2ROcyH8Xw> – for teacher

Plan an experiment using different liquids to put eggs in (one per group)

Minimum: Water must be one as a control, a form of coke and an acidic drink (vinegar, apple or orange juice) cold tea or coffee

Highlight that is why it is important to clean teeth!

**Vocabulary:** enamel, liquid, acidic, stains, weakens

**Session 4: Recap: what can damage the enamel on teeth? How can you prevent this?**

Children learn that the digestive system breaks down food and the digestive system consists of mouth, tongue, oesophagus, stomach, small intestine, and large intestine. The tongue helps to chew the food and swallow it. The oesophagus transports food to the stomach. In the stomach the food is churned up and broken down further. In the small intestine the nutrients from the food are absorbed into the blood which transports them around the body. In the large intestine, water is absorbed into the body

**FOCUS:** to understand how the body digests food

<https://www.youtube.com/watch?v=3pjkQcQBTtc>

<https://www.youtube.com/watch?v=eSEYPO30AN0> how nutrients get into the body

**Vocabulary:** mouth, saliva, tongue, teeth, oesophagus, stomach, small and large intestine, rectum, anus, digests, lubricates, pancreas, liver, gallbladder

**Session 5: Recap: Match the part of the digestive system to its function**

Model this experiment to show what happens

<https://www.stem.org.uk/resources/elibrary/resource/35396/digestive-system-experiment>

Children learn the digestive system of a chicken includes mouth, tongue, oesophagus, stomach, small intestine, and large intestine. The digestive system of most reptiles and

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amphibians includes mouth, oesophagus, stomach, small intestine, and large intestine. The digestive system of a salmon includes mouth, teeth, tongue, oesophagus, stomach, and intestine. Some animals have more than one stomach to aid digestion e.g. alligator, cow.

**FOCUS:** to research information about the digestive system in animals

E.g. It takes about seven seconds for food to travel from your mouth to your stomach.

A woman's small intestine is longer than a man's.

Your stomach acid would be able to dissolve metal.

If you stretched out your whole digestive system, it would be 29 feet long.

**Vocabulary:** acid, dissolve

### **Session 6: Recap: Tell me about the digestive system**

Children learn energy passes along the food chain. All food chains, start with a plant which is a producer as it makes its own food. Animals that eat plants are primary consumers. Primary consumers may be eaten by secondary consumers or predators.

**Lo:** to research and interpret food chains

<https://www.youtube.com/watch?v=8L2MZdOIZrs> BBC teach

<https://www.youtube.com/watch?v=4011tg7ZLho>

<https://www.youtube.com/watch?v=7AZCcf4Fv14>

Research food chains

Think about how the animals are dependent on each other in a food chain

**Vocabulary:** food chain, producer, consumer, predator, energy, prey, dependency

Link to career scientist:

Dentist/ orthodontist <https://www.youtube.com/watch?v=CIHc2B06PFc>

Nurse [https://www.youtube.com/watch?v=zkhvoJsH\\_5k](https://www.youtube.com/watch?v=zkhvoJsH_5k)

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Scientists who have helped develop understanding in this field: William Beaumont, a surgeon in the US army 1785-1853