Medium Term Plan: Supporting Implementation of LTP/Progression Grid

Subject: Science Year: LKS2 year B

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)

To know that the digestive system breaks down food.

To know the digestive system consists of: mouth, tongue, oesophagus, stomach, small intestine and large intestine

To know teeth are used to chew the food and break it up into bits

To know helps to chew the food and swallow it

To know that the oesophagus transports food to the stomach

To know that in the stomach the food is churned up and broken down further

To know in the small intestine the nutrients from the food are absorbed into the blood which transports them around the body

To know in the large intestine water is absorbed into the body

To know the four front teeth in both the upper and lower jaws are called incisors and are used to cut food.

To know there are four canines in the mouth which tear food and form the corners of the mouth.

To know the premolars are designed to crush and grind food.

To know the molars have broader and flatter surfaces and grind food.

To know energy passes along the food chain

To know all food chains start with a plant which is a producer as it makes its own food

To know that animals that eat plants are primary consumers

To 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/ orthodentist https://www.youtube.com/watch?v=CIHc2B06PFc

Nurse 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

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Session 2:

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

Lo: 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

Lo: 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?

Lo: 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's why 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?

LO: 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

Mouth and teeth – where the digestion starts, breaks down food by chewing Salivary glands – produces saliva and lubricates the food so it can go down the oesophagus Oesophagus - muscular tube that moves food to the stomach

Stomach – breaks down the food more and produces acid

Pancreas - it makes enzymes that break down food in the intestines.

Liver – stores energy and helps get rid of toxins

Gallbladder – stores bile and releases it to help digest fats

Small intestine – absorbs nutrients and minerals from food

Large intestine – absorbs water from food

Rectum – stores stool until it leaves the body

Anus – where stool leaves 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

LO: to research information about the digestive system

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

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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:

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/ orthodentist https://www.youtube.com/watch?v=CIHc2B06PFc

Nurse 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

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