

Y4 Science – Animals, including Humans (The Digestive System)

Targets to be covered:

Learning Ladders:

- interpret food chains
- identify and describe prey in a food chain
- identify and describe a predator in a food chain
- identify and describe a producer in a food chain
- create their own food chain
- describe how to look after their teeth
- identify and describe the different types of teeth in humans and how they function
- compare the teeth of herbivores and omnivores
- identify and describe the basic parts of the human digestive system

Working Scientifically

- Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts and tables.
- Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions.
- Use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions.
- Use straightforward scientific evidence to answer questions or to support their findings.

Key Vocabulary

digestive system, digestion, mouth, teeth, saliva, oesophagus, stomach, small intestine, nutrients, large intestine, rectum, anus, teeth, incisor, canine, molar, premolars, herbivore, carnivore, omnivore, producer, predator, prey, food chain

Week	Order of Study
1	Pre-assessment quiz LI: I can identify and describe the different types of teeth in humans and how they function. Type of Scientific Enquiry – Starter – Recap what children know about teeth. What do they already know about their own teeth? Can they name the teeth and their functions? Main lesson – Watch the teeth video that explains the different types of teeth in humans. Then go through the PowerPoint of information to recap the video. As you read through the PowerPoint information for more knowledge, use the mirrors for the children to look at their own teeth. Get the children to identify where they are in their mouth and the shape and size of them. Identify misconceptions about why some children might not have the same amount of teeth. WHAT ARE THE DIFFERENT TYPES OF TEETH? - Bing video Task – The children will complete a labelling teeth worksheet. When they are finished, the children need to define the definitions of each tooth. Plenary – Review the vocab from the main lesson. Resources needed: access to internet, labelling teeth worksheet, teeth PowerPoint Key terminology – teeth, functions, incisor, canines, premolar, molar, wisdom teeth
2	LI- I can compare the teeth of carnivores, herbivores and omnivores. Type of Scientific Enquiry – Starter – Recap what we mean by the words herbivores, carnivores and omnivores. Explain the difference between the words.

	Main Lesson – Ad the question, ‘Why do you think herbivores and carnivores have different shaped teeth?’ Watch the video as a class to explain the difference between teeth and animals. Talk about this as a class. How do different animals use their teeth to eat? BBC Teach - YouTube Task – Children to complete a table in their books to explain the definition of herbivores, carnivores and omnivores, explains the animals tooth and why they are the shape they are and also draw an image of the shape. When the children have completed this, they will then use the ipads to research ONE carnivore and ONE herbivore. The children need to explain what their diet is, explain the shape of their teeth and how this helps them and explain any fun facts they can find about their teeth. Plenary – Review the vocab from the main part of the lesson. Resources needed: access to internet Key terminology – carnivores, herbivores and omnivores.
3 and 4	Teeth experiment: Start Monday and Finish Friday LIs: (Stick the LIs in) - I can describe how to look after my teeth. - I can report on findings from enquiries, including oral and written explanations, displays or presentations - I can use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions. - I can use simple scientific evidence to answer questions or to support my findings Type of Scientific Enquiry – Observation over time. How do different liquids affect our teeth? Starter – Pose the enquiry question to the children. Discuss predictions. Discuss how we could investigate this – why it would be unethical to use teeth and we need to use eggs (similar layers to teeth), and how we can make it a fair test. Main lesson – Set up the experiment. Task – Children to write up the experiment, discussing each part. <u>Start of week:</u> Equipment, method, diagram, predication. Leave the experiment for 5 days and then check results. <u>End of week:</u> results, conclusion. Plenary – Recap what the results of the experiment are, linking back to the question. Stick pic of the experiment in with a task, reviewing from the start of the week how it was a fair test and why real teeth weren’t used. Resources needed – Need per class: - 4 eggs - Coke - Milk - Orange juice - Water - Cling film - 4 plastic cups Key terminology – prediction, fair test, reliability, unethical, ethical, enamel
5	Digestive system experiment: https://www.youtube.com/watch?v=7av19YhNkhE https://www.bbc.co.uk/bitesize/topics/zf339j6/articles/zmn48mn LI - I can identify and describe the basic parts of the human digestive system. Working scientifically:

	- Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions. - Use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions. Type of Scientific Enquiry – Identifying – How does food digest in our bodies? Starter – Share vocab with children – matching exercise to introduce the activity. Main lesson/Task – Pose the enquiry question to the children. Discuss predictions. Discuss how we could investigate this – why it would be unethical to open up a body to show them, and how the equipment we have in front of us represents different parts of the digestive system (orange juice represents stomach acid). Teacher to model demonstration to the children/children carry out the experiment in groups, step-by-step. Plenary – Children to talk about and write what happened during the experiment, using the correct scientific terminology. Resources needed – Need per class: - Tights (1 leg) - Orange juice - Water - 2 crackers - 1/3 banana - Metal tray - 2 plastic cups, one with a hole in the bottom - Scissors, to cut the tights and a hole in the cup Key terminology – mouth, tongue, oesophagus, stomach, large intestine, small intestine, colon, rectum, anus, bile, stomach acid, digestion, faeces
6 STAND ALONE LESSON	Food chains LIs - I can identify and describe a producer in a food chain. I can identify and describe a predator in a food chain. I can identify and describe prey in a food chain. I can interpret a food chain. I can create my own food chain. Type of Scientific Enquiry – Starter – Vocabulary starter – What is a food chain? Make a class glossary of key terms. Main lesson – Discuss possible misconception: What do the arrows in a food chain mean? Consume. Chn may think it means 'eats'. Look at PowerPoint of food chains. Task – Children to carry out tasks interpreting food chains. Then make their own. Plenary – Children to share their own food chains. Do the class agree/disagree? Why? Resources needed – Worksheet, PowerPoint Key terminology – food chain, producer, consumer, predator, top predator, prey, primary/secondary, herbivore, carnivore, omnivore
7	Post-topic quiz