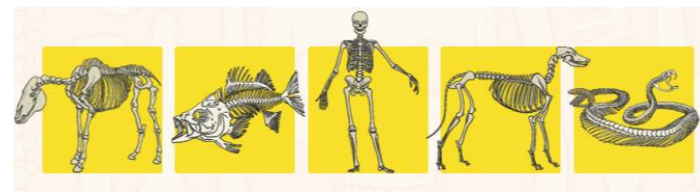


Year 3 – Spring 2 – ‘Animals, including humans’



NC Science – Animals, including humans

Pupils should be taught to:

- identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat
- identify that humans and some other animals have skeletons and muscles for support, protection and movement

I can investigate muscle strength

Chn to explore the role of muscles in helping humans move through investigation.

POSE: Do people have stronger muscles because they use them more?

PREDICT: chn to write a prediction based on their own knowledge and ideas.

PLAN and PICK What data will you collect? How will you put your data into a table? How will you share out the task in your group? What are your variables? What needs to stay the same? (The exercise completed)

PRESENT: chn to present their data in a scattergram, showing the numbers of jumps completed and the hours of exercise/sport each person completes in a week?

PROVIDE: Do your results show an obvious pattern? Does this prove that those that exercise more have stronger muscles? Are your results conclusive? Can anything else contribute to muscle strength?

What would you do next time to support the accuracy of your experiment?

I can investigate whether bone size relates to the height of a person

POSE: Chn to create an investigation as to whether the bones in taller people are larger/longer in length? Chn to decide on an appropriate enquiry question. Teacher to check.

PLAN: What tests are you going to conduct? Circumference of head, length of leg from waist to foot. Make sure chn know that scientifically those with larger measurements tend to have larger bones. The investigation will explore whether this correlates with height?

PICK: What needs to remain the same? Age of child? Chn included in test? Amount of tests conducted? Measurement used?

PREDICT: chn to predict whether they agree or disagree with their enquiry question.

PRESENT: chn to present their data in 4 graphs: Height, head circumference, length of leg and length of hand.

PROVIDE: Was your prediction correct? Was your enquiry question correct? Explain what your data shows? Do you think the results would be the same if you conducted the investigation with adults? Why? Is your data conclusive? If you compare your data with other groups in the class. Do their results provide the same conclusion? Did the shortest person in the class have the smallest measurements?

I can explore the function of a skeleton and compare skeletons types

By the end of the lesson all chn should understand that humans and some other animals have skeletons and muscles for support, protection and movement.

In this lesson chn will explore the function of a skeleton and be able to name some of the bones in the human body and label these on their own skeleton diagram.

Chn will then go on to explore the different types of skeleton: **hydrostatic skeleton, endoskeleton and exoskeleton.**

Chn to research each skeleton and create their own definitions. Why do some animals have an exoskeleton and some animals have an endoskeleton? Why do some animals have a hydrostatic skeleton?

Chn will then then make a table of pros and cons for each type of skeleton including examples for each skeleton group.

I can explore different diet types

Last week, children created a model of balanced diet for their given client.

This week chn to explore different diets: omnivore, herbivore and carnivore.

Chn to group define each group and then group given animals into these groups based on description of their diets.

PRESENT: However, how does this apply to humans? Chn to present a new model of a balanced diet for their client under new given criteria.

For example: Last week a child may have created a diet including lots of dairy for Will. What if he was lactose-intolerant? How can the child amend their planned diet and still make it nutritional balanced?

Are there any conditions where the new diet cannot remain balanced?

PROVIDE: Chn to explain their final model of a balanced diet for their client, explain their choices connected to the lifestyle the lead and any health requirements

I can research what makes a balanced diet

Carrying on from last week's lesson, Chn to explore the 5 food groups. Why do we group food? Why is it important to have a balanced diet? Does every meal need to include every food group?

Chn to research the 5 food groups and then apply their knowledge to their previous prediction. Can they better cater for their client's needs with their new knowledge?

PRESENT: chn to present new recommendations to their clients based on their new learning. For example: the chn will now know that Will needs a calcium/dairy rich diet and lots of protein!

Can chn use their knowledge to draw a pie chart to represent a cat's diet and explain the differences between the diet they're created for their human and the animal's diet.

What are the main similarities and difference between an animal's and a human's diet?

I can compare how a plant receives energy to animals and humans

How do plants and animals get their nutrition? Children to discuss how plants and animals get their nutrition (link to prior learning about plants). Plants get nutrition from the ground and produce their own energy using sunlight (photosynthesis) Humans and animals can't produce their own energy so have to eat food and drink water.

But how do humans specifically ensure they are consuming a nutritional diet?
POSE: Create a collaborative enquiry question for the whole class to follow.

PREDICT: Do you think everyone needs the same food and the same quantities of food to be nutritionally balanced?

What does a healthy diet need to include? What should humans not have too much of in their diet? Chn to look at the client case studies and compare their diets. What is similar between them? Different? Chn to support their ideas on the questions above by looking at the client case studies.

Chn to include examples in their prediction of who they think will need more or less of something. E.g. the boy Will wants to build up strength so would need a diet that helps contribute to muscle health and strength to help support recovery after his injury



NC Working Scientifically (LKS2)

During years 3 and 4, pupils should be taught to use the following practical scientific methods, processes and skills through the teaching of the programme of study content:

- asking relevant questions and using different types of scientific enquiries to answer them

Year 3 – Spring 2 – 'Animals, including humans'

--	--

- setting up simple practical enquiries, comparative and fair tests
- making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers
- gathering, recording, classifying and presenting data in a variety of ways to help in answering questions
- recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables
- reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions
- using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions
 - identifying differences, similarities or changes related to simple scientific ideas and processes
 - using straightforward scientific evidence to answer questions or to support their findings.

