

<p>Year 3 – Animals including humans</p>	<p>Main Outcomes:</p> <ul style="list-style-type: none"> 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. 	<p>Focus: Science - biology</p>
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<p>What should I already know?</p>
<ul style="list-style-type: none"> Animals, including humans, have offspring which grow into adults. The basic needs of animals, including humans, for survival (water, food and air). The importance for humans of exercise, eating the right amounts of different types of food, and hygiene.
<p>What I will do</p>
<p>I will have weekly or blocked science lessons. In lessons, I will be taught a skill and I will gain knowledge and understanding through the process of scientific enquiry (observing over time; pattern seeking; identifying, classifying and grouping; comparative and fair testing (controlled investigations); and researching using secondary sources).</p>
<p><u>Possible lines of enquiry</u></p>
<ul style="list-style-type: none"> Identify and group animals with and without skeletons and observe and compare their movement. Explore ideas about what would happen if humans did not have skeletons. Compare and contrast the diets of different animals (including their pets) and decide ways of grouping them according to what they eat. Research different food groups and how they keep us healthy and design meals based on what they find out.
<p>Resources</p>

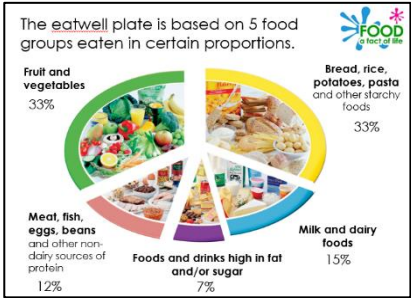
Vocabulary	Meaning
backbone (spine)	the column of small linked bones down the middle of your back
bar chart	a chart which uses bars to represent the value of something and comparing it to a different group
bones	the hard parts inside your body which form your skeleton
carbohydrates	nutrients in food - starches and sugars - which are the body's major sources of energy
carnivore	an organism that eats mostly meat, or the flesh of animals
compare	to note similarities and differences
contracts	gets shorter
describe	to use spoken or written words to explain something
diet	everything that we eat and drink
fats	nutrients in food that the body uses for energy, as well as to build cell membranes, nerve tissue and hormones.
fibre	a non-digestible group of substances found in plant foods; needed to help move food through the gut
herbivore	an animal that only eats plants such as vegetables, fruits, bulbs, grasses, roots, berries, and wood.
identify	to recognise something
joint	a place where two or more bones meet
muscle	something inside your body which connects two bones and which you use when you make a movement
nutrition	nourishment / the food and drink we need to stay healthy
observe	to see, view, watch or note something
omnivore	an animal that eats both plants and other animals
organism	an individual animal, plant, or single-celled life form
protection	stopping something (in this case, body parts) from getting damaged
proteins	nutrients in food that the body uses for growth and repair
relax	gets longer
ribs or rib cage	the bony framework which protects the heart and lungs
skeleton	the framework of bones in your body
skull	the bones that form the head and protect the brain
spine (backbone)	the column of small linked bones down the middle of your back; the spine protects the spinal cord
support	holding something up (in this case, body parts)
table	a way of presenting information or data using rows (horizontal) and columns (vertical)
vitamins and minerals	nutrients in food that are needed to keep our cells and immune system healthy

Hamilton Science planning: animals including humans <https://www.hamilton-trust.org.uk/science/year-3-science/animals-including-humans-keeping-healthy/> (all planning also saved on SharePoint).

Knowledge to understand

Animals, including humans, can't make their own food.

Animals get **nutrients** from the food they eat.
 Most animals eat living things to get the **nutrients** they need.
 Some animals eat other animals (**carnivores**); some animals eat plants (**herbivores**); some animals eat both animals and plants (**omnivores**).
 There are 5 food groups: **fats, proteins, vitamins and minerals, carbohydrates and fibre**.
 Animals also need water to survive.
 Humans need to eat a balanced **diet** to get the right amount of **nutrients**.

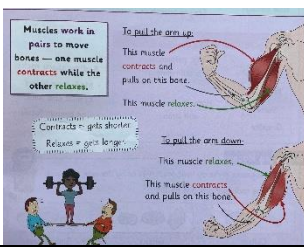
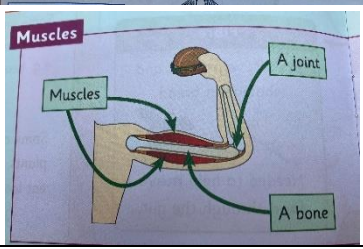
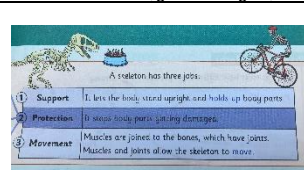
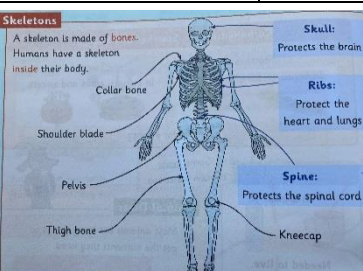


A **skeleton** is made of **bones**.

Humans have a **skeleton** inside their body. Some animals don't have **skeletons**, e.g. snails and squids.
 A **skeleton** has 3 jobs: **support, protection and movement**.

Muscles work in pairs to move **bones**.

One **muscle contracts** (gets shorter) while the other **relaxes** (gets longer).



Skills to learn

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

Cross-curricular (maths)

- statistics: interpret and present data using bar charts, pictograms and tables
- solve one-step and two-step questions
- understand and use simple scales (e.g. 2, 5, 10 units per cm) in pictograms and bar charts with increasing accuracy
- continue to interpret data presented in many contexts
- measurement: measure, compare, add and subtract lengths (m/cm/mm)

Equipment to become familiar with

- Rulers/tape measures for measuring in cm and mm
- Stopwatches

Evidence of Learning

- Science books
- Photos
- Videos
- Pupil conferencing
- Teaching and learning observations
- Learning walks
- Data analysis

How will I know what I've learnt?

See KS2 teacher assessment exemplification for science
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/763065/2018_key_stage_2_teacher_assessment_exemplification_science.pdf
 See also Hamilton Science_Assessment_Y3 (saved in planning folder on Sharepoint).
 KS2 quizzes:
<https://gcequiz.com/quiz/ks2-science-quizzes>
<https://churchfieldsjunior.com/test-your-skills-science/>