



Year 3 Science

Health & Movement

Things you should already know:

- the basic parts of the human body and which sense they are linked to.
- that animals, including humans, have offspring which grow into adults
- the basic needs of animals, including humans, for survival (water, food and air)
- importance for humans of exercise, eating the right amounts of different types of food, and hygiene.

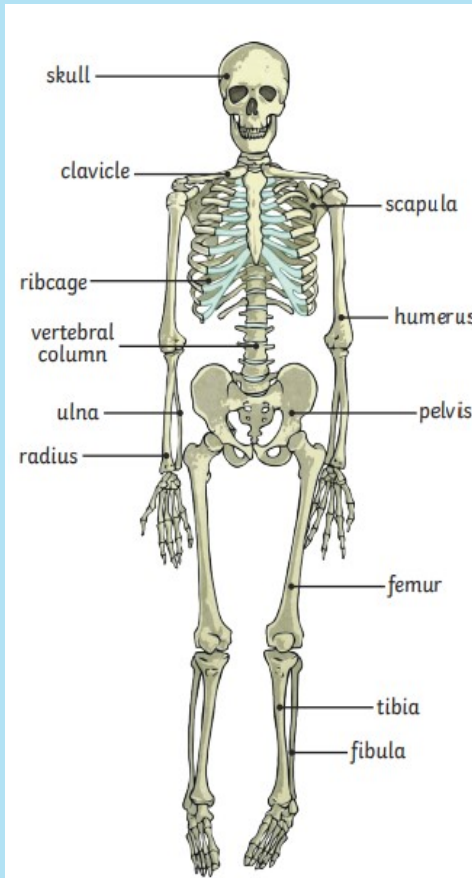
Key Knowledge:

- All vertebrates have internal skeletons that protect vital organs.
- Invertebrates have exoskeletons that protect vital organs.
- Skeletons support the weight of land animals. Stronger bones can support more weight.
- Bones are connected (but can move relative to each other) at joints.
- Muscles connect to bones and move them when they contract. Stronger bones can anchor stronger muscles

New Learning for Year 3

To be able 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.



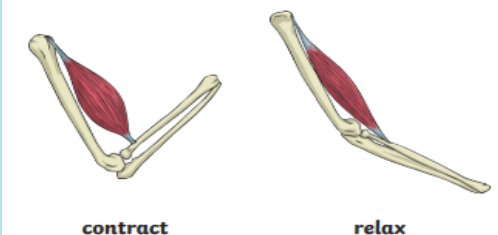
Skeletons do three important jobs:

- protect organs inside the body;
- allow movement;
- support the body and stop it from falling on the floor.

Nutrient	Found in... (examples)	What it does/they do
carbohydrates		provide energy
protein		helps growth and repair
fibre		helps you to digest the food that you have eaten
fats		provide energy
vitamins		keep you healthy
minerals		keep you healthy
water		moves nutrients around your body and helps to get rid of waste

- Living things need food to grow and to be strong and **healthy**.
- Plants can make their own food, but animals cannot.
- To stay **healthy**, humans need to exercise, eat a **healthy** diet and be hygienic.
- Animals, including humans, need food, water and air to stay alive.

Skeletal **muscles** work in pairs to move the bones they are attached to by taking turns to contract (get shorter) and relax (get longer).





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Key Vocabulary

Nutrition	The taking in and use of food and other nourishing
Nutrients	Substances that living things need to stay alive and healthy
Energy	Strength to be able to move and grow
Vertebrate	Animals (including humans) with backbones
Invertebrate	Animals without backbones
Skeleton	The framework of bones that support and protect the soft tissues of the body.
Bones	Strong, hard material that supports the body, they store minerals like calcium; where most blood cells are made.
Muscles	Soft tissues in the body that contract and relax to cause movement
Tendons	Cords that join muscles to bones
Joints	Areas where two or more bones fit together

What is the term used to describe an animal that doesn't have a backbone? Give three examples to back up your answer.

Draw and label diagrams to help you write an explain of how muscles work?

Sticky Learning.

Can you answer any of these questions in your book?



Scan this to investigate how muscles work.

Scan this to investigate the human skeleton.



Draw a line from the food to the nutrient it contains.

pasta

fibre

chicken

carbohydrates

apple

protein

olive oil

fats

wholegrain cereal

vitamins



Scan this to test your knowledge with our class quiz.

Fill in the missing words.

Skeletal muscles work in _____ to move the bones they are attached to. They do this by _____ (getting shorter) and _____ (getting longer).