



# Y3 Science Knowledge Organiser—Animals including Humans



## Key Knowledge

Learn these key facts—key points in red

### HEALTHY EATING

To keep your body fit and healthy you need a balanced diet using all of the food groups.

Carbohydrates – Main source of energy for our bodies (rice, potatoes, pasta and bread).

Protein – Repairs and builds muscles, organs and immunity (fish, meat, eggs and cheese).

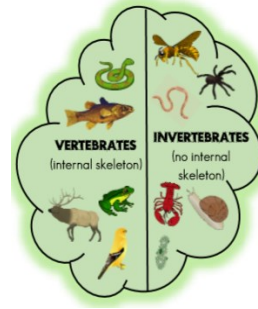
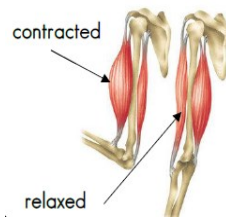
Sugar and Fats – Stored for energy and creates a layer of fat to keep us warm. Should not have too much of these (chocolate, sweets, butter, oil, cream).

Vitamins and Minerals – Keeps us growing and fighting infections (fruit and vegetables).

### SKELETONS & MUSCLES

The skeleton protects our internal organs, keeps us supported and helps us move.

Skeletons move because bones are attached to muscles. When a muscle contracts (bunches up), it gets shorter and pulls up the bone it is attached to. When a muscle relaxes, it goes back to its normal size.



### Focus Scientists—Elsie Widdowson

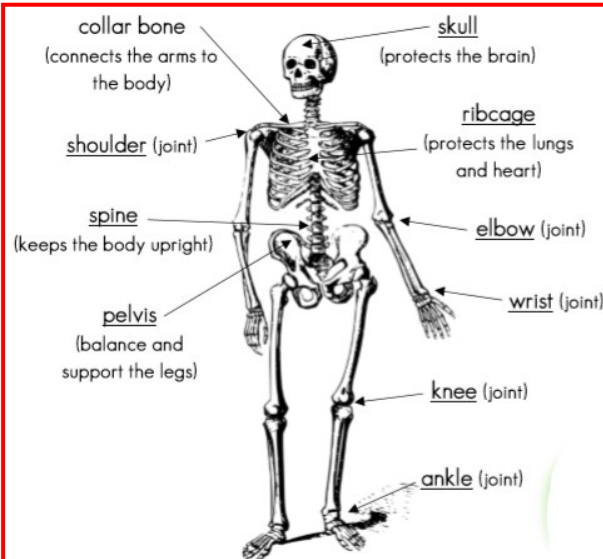
Elsie Widdowson (1906-2000) was a British dietician and nutritionist who loved experiments. She wrote a book which told us for the first time what energy and nutrition was in different foods. She also played a key role in wartime rationing.



### Greg Whyte OBE

Greg

Whyte (born 1967) is a former Olympian and a sports scientist. He is a Professor in Applied Sport & Exercise Science at Liverpool John Moores University. He is an expert on exercise physiology, sports performance and rehabilitation. He has also been involved with Comic Relief.



## Key Vocabulary

Understand these key words

Word	Definition
nutrition	the study of food and how it works in your body. It includes carbohydrates, fats, protein, vitamins and minerals.
carbohydrate	the main source of energy for our bodies (rice, potatoes, pasta and bread).
fats	stored for energy and creates a layer of fat to keep us warm (chocolate, sweets, butter, oil, cream).
protein	repairs and builds muscles and organs (fish, meat, eggs and cheese).
vitamin & minerals	these help us to grow, form bone and muscle and prevent infection (fruit and vegetables).
skeleton	it's a strong structure made of bone which supports us so we can stand, protects internal organs from damage and allows movement.
vertebrate	is an animal with an internal backbone.
invertebrate	is an animal without an internal backbone.
endoskeleton	an internal support made of bone that gives the body shape and allows it to move.
exoskeleton	a hard covering that supports and protects the bodies of some types of animals. The word exoskeleton means "outside skeleton." Many invertebrates, or animals without backbones, have exoskeletons.
muscle	an organ of the body which allows for the body to move as they are attached to the skeleton.
contract	when muscles tense.
relax	when muscles are less tense and return to normal size.