



# 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).

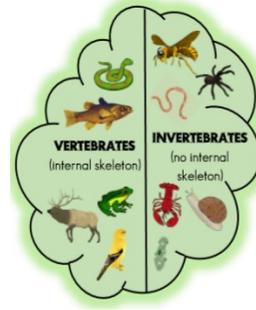
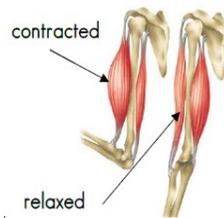
Sugar and Fats – Stored for energy and creates a layer of fat to keep us warm. Should not have too much of these (chocolate, sweets, butter, oil, cream).

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

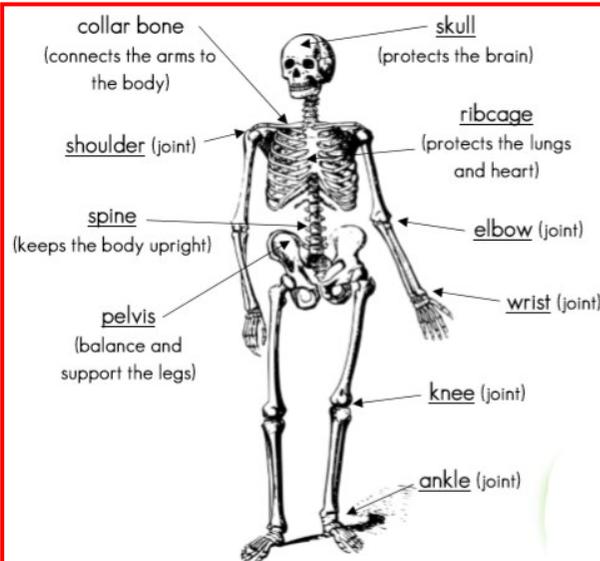
Elsie Widdowson (1906-2000) was a British dietician and nutritionist who loved experiments. She wrote a book which told us for the first time what energy and nutrition was in different foods. She also played a key role in wartime rationing.



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