



Lyng Primary School Knowledge Organiser



Topic:

Science
How do our bodies work?

Year 3

Autumn 1

What should I already know?

- Identify and name a variety of common animals that are carnivores, herbivores and omnivore.
- Notice that animals, including humans, have offspring which grow into adults.
- Identify that most living things live in habitats to which they are suited and describe how different habitats provide for the basic needs of different kinds of animals and plants and how they depend on each other.
- Describe how animals obtain their food from plants and other animals, using the idea of a simple food chain, and identify and name different sources of food
- Describe the importance of exercise, eating the right amounts of different types of food and hygiene

Notable scientists



What Step On and Goldilocks words will I use?

Spelling	Definition
skeleton	The set of bones on a human or animal, joined together to make our structure.
tendon	A tough, elastic tissue which connects the muscles and bones
voluntary muscle	Muscles whose actions are controlled by an individual's will
involuntary muscle	Muscles not controlled by an individual's will.
Vertebrate	Animal with a backbone
Invertebrate	Animal without a backbone
Joints	Areas where two or more bones are fitted together
balanced diet	a diet consisting of the proper quantities and proportions of foods needed to maintain health or growth
healthy	Someone who is healthy is well and is not <u>suffering</u> from any <u>illness</u> .
nutrients	Nutrients are substances that help plants and animals to grow.
energy	Energy is the ability and strength to do active physical things and the feeling that you are full of physical power and life.

Investigate!

- Record findings using simple scientific language, drawings, labelled diagrams, bar charts and tables – **create our Iron Man Skeleton.**
- Ask relevant questions – **hot seat a member of staff about their dietary requirements.**

Vertebrate - an animal with a backbone.

Endoskeleton - a skeleton on the inside of the body.



Invertebrate - an animal without a backbone.

An invertebrate may have an **exoskeleton** - a skeleton on the outside of the body...



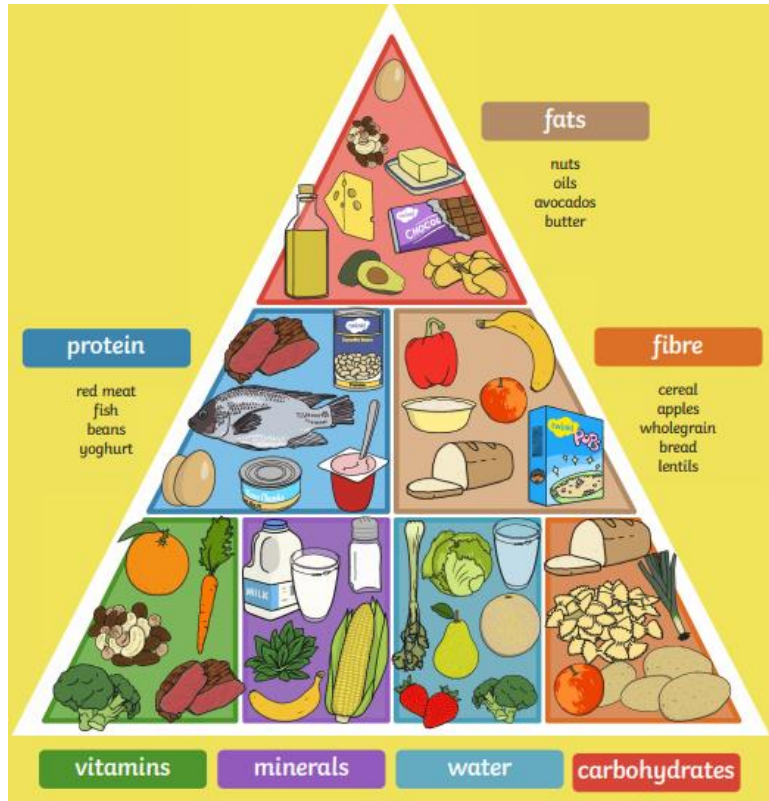
...or no skeleton at all.



What will I know by the end of the unit?



Food pyramid



Types of nutrients

Protein help your body to grow and repair itself examples include red meat, yogurt, beans.

Carbohydrates give you energy examples include bread, potatoes, pasta

Fats give you energy examples include nuts, oils, avocados

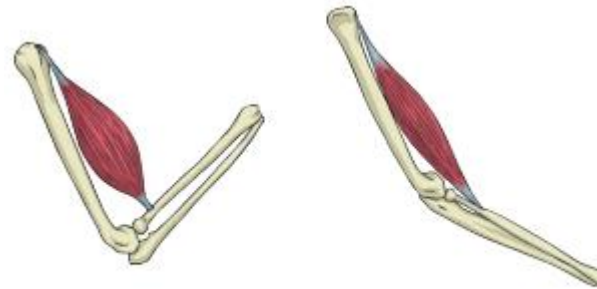
Vitamins keep your body healthy examples of foods high in vitamins include oranges, carrots and nuts.

Minerals keep your body healthy examples of foods high in vitamins include milk, sweetcorn, spinach

Fibre helps you to digest the food that you have eaten examples of foods high in fibre include wholegrain bread, cereals and lentils

Water helps to move nutrients in your body and get rid of waste that you don't need examples of foods high in water include celery, cucumber, tomatoes.

Muscles



contract

relax

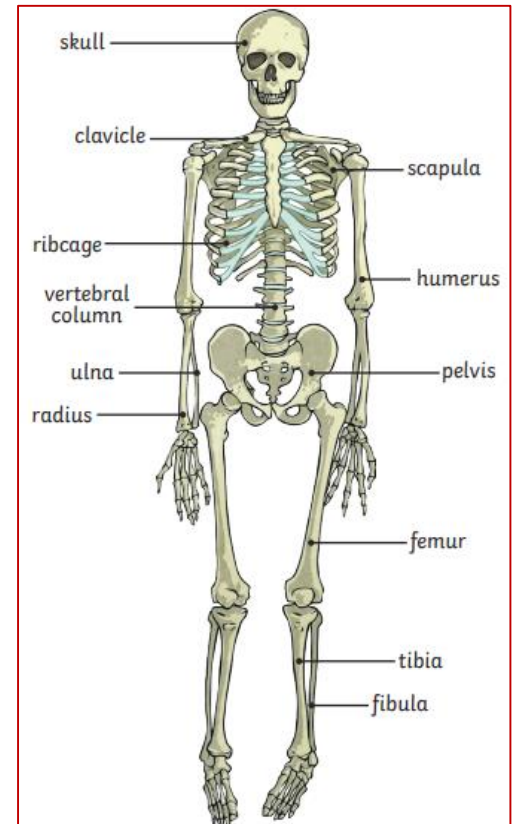
Skeletal muscles work in pairs to move the bones they are attached to by taking turns to contract (get shorter) and relax (get longer).

Skeletons

Skeletons do three important jobs:

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

Skeleton





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Which of these is not a joint?	S	E
a) Elbow		
b) knee		
c) skull		

Which is the correct order of bones from head to toe?	S	C
a) skull, femur, pelvis, ribs		
b) skull, spine, pelvis, femur		
c) pelvis, spine, humerus, skull		

What are the three functions of a skeleton?	S	E
a) Movement, motion and support		
b) Support, strength and behaviour		
c) Movement, Protection and support		

Which nutrient group is used as an energy store and helps us to keep warm?	S	E
a) water		
b) fats and oils		
c) minerals		

Which of these statements is false?	S	E
a) Muscles are attached to our bones		
b) Muscles push on our bones		
c) Muscles make the bones move		

Which of these bones protects the heart?	S	E
a) Skull		
b) Ribs		
c) Pelvis		

Which of the following do we need for energy?	S	E
a) breathing		
b) sleeping		
c) running		
d) all of the above		

A balanced diet is...	S	E
a) Eating all seven nutrients in the right amounts		
b) Never eating bad foods		
c) Eating all five nutrients in the right amounts		

Start of quiz _____ End of quiz _____
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