

The Knowledge

Supporting the National Curriculum



Knowing More Remembering More Learning More

Animals Including Humans

ARDLEIGH GREEN
JUNIOR SCHOOL

Year 3
Science

Other Animals

Vertebrates are animals that have a **spine** or **backbone** as part of their skeleton. **Humans** are **vertebrates**. **Invertebrates** are animal that **do not** have a backbone. A butterfly is an invertebrate.



All mammals, birds, amphibians, reptiles and fish have an **endoskeleton**. This is a skeleton that is on the **inside** of the body. The skeleton has three main jobs: to **protect** our internal organs, to **support** us and help us **move**. Animals with an **endoskeleton** are **vertebrates**.

Some **invertebrates** have their skeletons on the **outside** of their body. These skeleton are called **exoskeletons**.

Some **invertebrates**, such as jelly fish, **don't have bones at all!** These animals have **hydrostatic skeletons** which means they have a **soft** body.

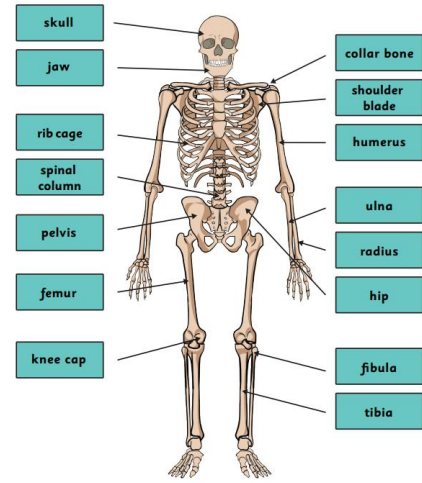
Nutrition

Humans need to eat a **healthy balanced diet**. **Nutrition** is when we eat food to give us **energy**. Adults and children need lots of energy to help them keep moving and keep their bodies **healthy!** Children also need food to help them **grow**. The Eatwell Plate shown below is a guide to help show us how much of each type of food we should eat.



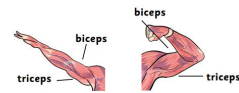
fruit & veg dairy sugar & fats
carbs & starches protein

Our Skeleton



Muscles

To **straighten** our arm, our **biceps relax** and our **triceps contract**. This straightens our arm. To **bend** our arm, our **biceps contract** and our **triceps relax**. This allows us to bend our arm at the elbow joint. When we **stretch** our muscles, they become **longer** and **thinner**. When we **contract** our muscles, they become **shorter**.



Joints

Skeleton joints are areas where two or more bones are fitted together.

Hinge joint: allows bending and extending movements



Ball-and-socket joint: allow the most freedom and movement. Movement is permitted in all directions.



Vocabulary

skeleton - a framework of **bone** to **support** the body

bone - **hard** parts of the **skeleton**

vertebrate - an animal **with** a **spine/backbone**

invertebrate - an animal **without** a **spine/backbone**

endoskeleton - a skeleton on the **inside** of the body

exoskeleton - a skeleton on the **outside** of the body

diet - the **food** that we eat

nutrition - the food we eat that gives us **energy**

healthy - things that are **good** for our bodies

unhealthy - things that are **not good** for our bodies

muscle - a bundle of **tissue** that **contracts** to allow **movement**

contract - to **squeeze** together

relax - to become **less tense**

Test Yourself

- What are the five food groups?
- Can you name any foods which belong to each food group?
- How does our skeleton help us?
- Which bone protects our brain?
- Do all animals have the same skeleton?
- Can you name the different types of skeleton?
- What do our muscles do?
- What do joints do?
- Do our bones affect what we can do?