

TAKE A LOOK INSIDE

SCIENCE

What have we learned previously?

- There are different types of animals, including birds, reptiles, amphibians, fish, insects and mammals.
- Carnivores, like lions, only eat meat. Herbivores, like rabbits, only eat plants. Omnivores, like most humans, eat both.
- We use our eyes to see, our nose to smell, our ears to hear, our tongue to taste and our skin to feel.
- Animals reproduce (have baby animals).
- Animals, including humans, need food, water and air to survive.
- Exercise, nutrition and hygiene are important to animal survival.

Why do we have a skeleton?

A skeleton provides us with support, movement and protection.

How does a skeleton support our body?

Long bones like your femur (thigh bone), humerus (upper arm bone) and the bones of the fingers and toes support the weight of your body.

The spine is made of lots of smaller bones called vertebrae and together they help to keep us upright, as well as letting us bend and twist.

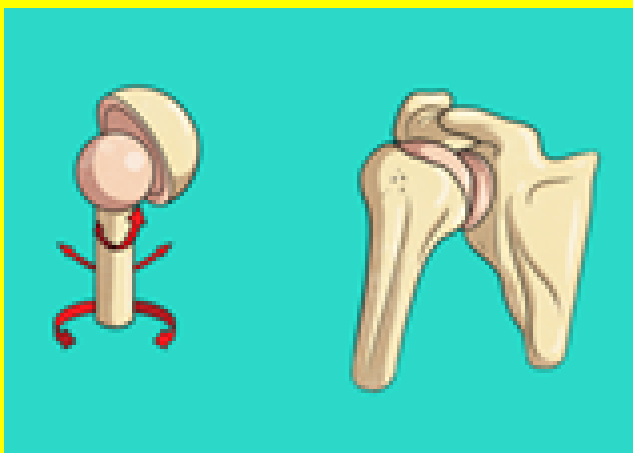
How does a skeleton protect us?

Some bones are designed to protect our organs. The cranium (skull) protects our brain. The ribcage protects our heart, lungs and other organs.

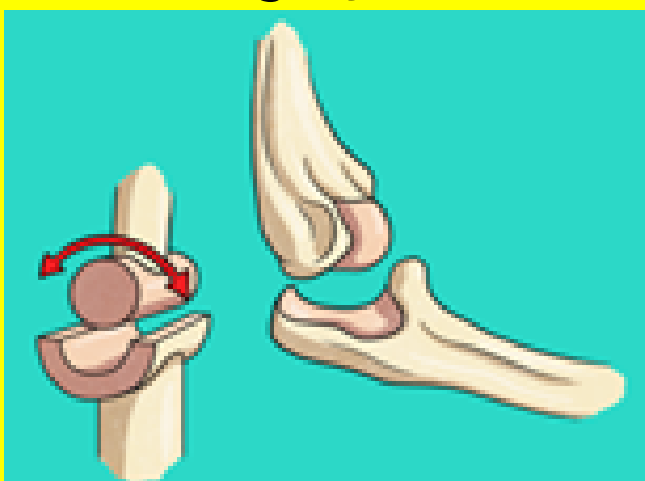
How does a skeleton help us move?

A joint is where two bones meet. There are different types of joints that do different jobs.

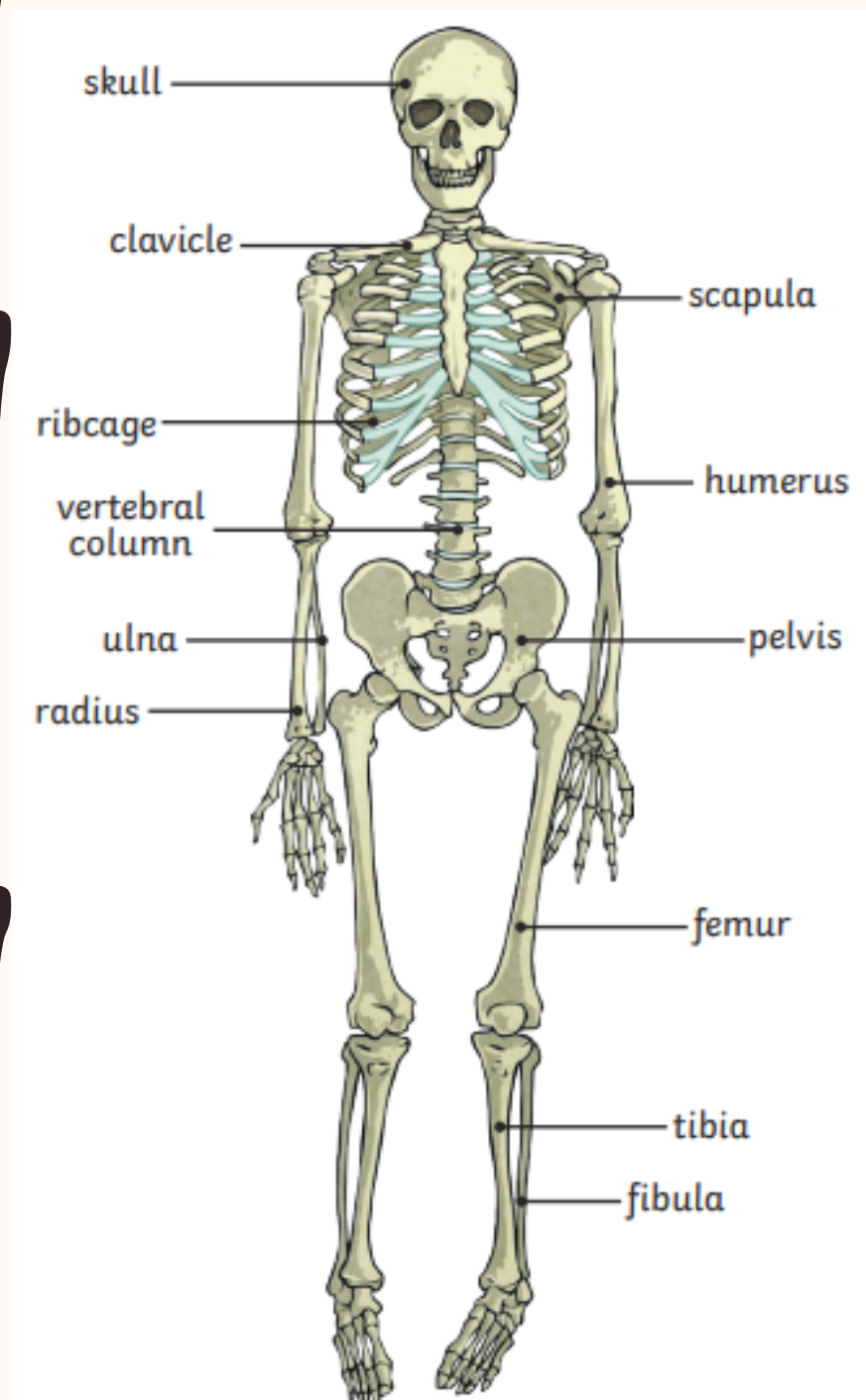
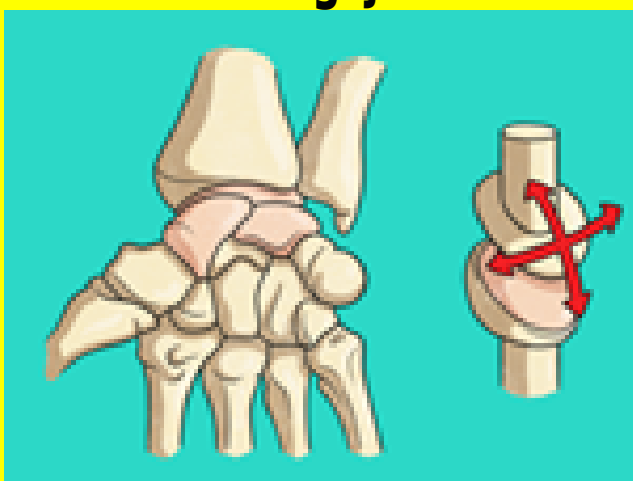
Ball and socket joint.



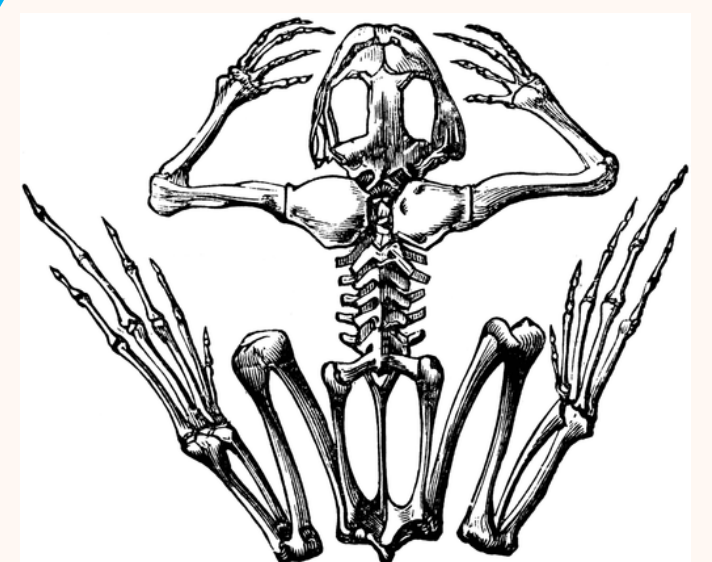
Hinge joint



Gliding joint



Every animal's skeleton is slightly different, but most have a lot of similarities! Can you spot the similarities and differences between the human and frog skeletons?



Did you know that human babies are born with 300 bones? By the time they grow to adulthood, some have fused together to create 206 adult bones.

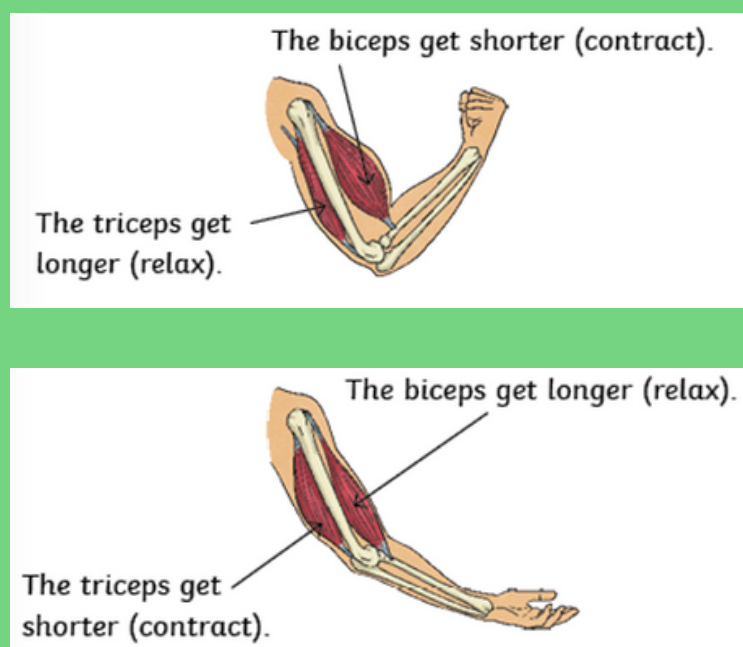


Did you know that the smallest bone in the human body is in the ear? It is called the stapes and is like a tiny hammer that vibrates in our ear to help us hear things. It is 3mm long!








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How do muscles help us move?

Muscles are connected to bones by tendons. Muscles work in pairs to move our bones. As one muscle contracts, its opposite relaxes.



Where do animals including humans get nutrition from?

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

Do all animals need the same amount and type of nutrition?

Animals cannot make their own food. They need to get it from other sources.

Carnivores eat other animals for energy.

Herbivores eat plants for energy.

Omnivores eat both plants and animals for energy.

Larger animals need greater amounts of energy.

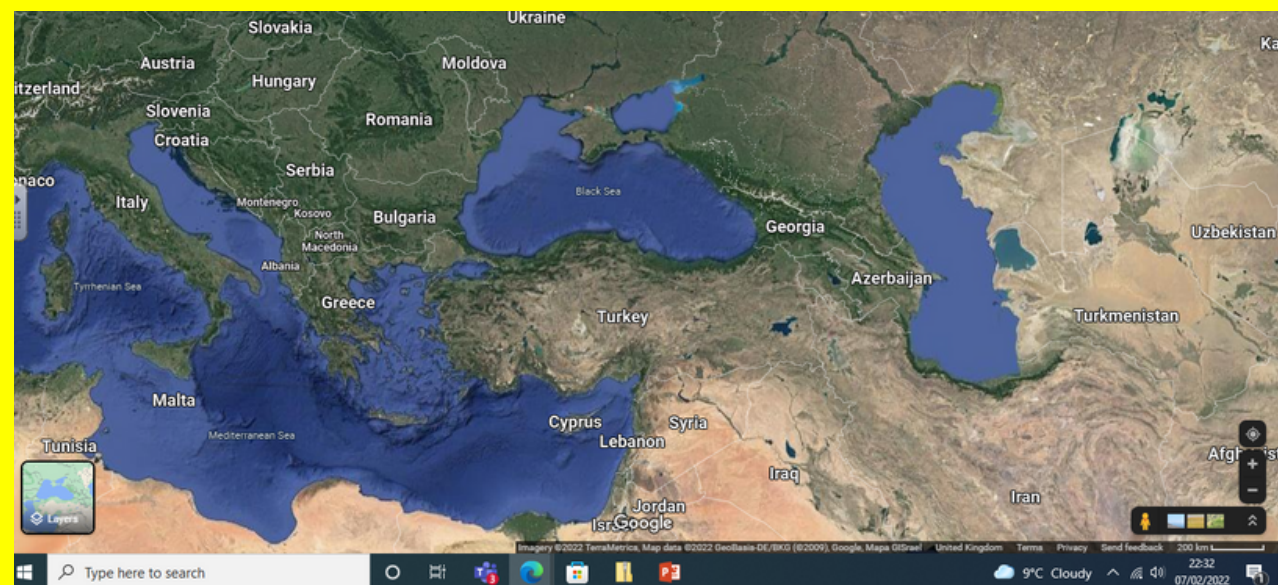
KEY VOCABULARY

skeleton bone support movement protection joint ball and socket hinge gliding
femur humerus cranium ribcage stapes vertebrae muscle tendon relax
contract nutrition carnivore herbivore omnivore adapted habitat

GEOGRAPHY

Where in the world do animals live and why?

Animals have adapted to live anywhere in the world. Satellite images show the many different habitats that animals live in: seas, lakes, rivers, deserts, mountains, forests and more.



Why do animals live in zoos?

In the past, zoos were built to exhibit exotic animals from all over the world for entertainment. Animals were often kept in cruel conditions.

Now however, many zoos, particularly in the UK, focus on animal welfare. They are places to protect endangered species. Many animals are endangered because of how humans have destroyed their natural habitat.

Should animals live in zoos?

Some people believe that zoos are cruel places and that no animal should be caged up.

On the other hand, some people consider them places where animals can be looked after and protected from harm.