



Knowledge

Can you identify the different types of skeletons?

Identify and Classify

Vertebrates—have a back bone
Endoskeleton—skeleton on the inside of their body and grows with them.
Exoskeleton - a covering that supports and protects they have to be shed and a new skeleton grown.
· Match animals to their skeleton

How do we move?

Research

· Joints are where bones meet, They allow our bodies to move.
· Muscles contract and relax.
· Place elbow on a desk and lift arm muscles in your upper arm (biceps) contract while muscles behind the upper arm (triceps) relax. The muscles work together and in opposition to allow your arm to move
· Muscles are connected to bones by tendons.

How do animals and humans move differently? Explain why.

Comparative

Compare how animals move differently. Look at the muscles on the different animals.

What are the main body parts associated to the skeleton?

Identifying and classifying



What would happen if humans did not have a skeleton?

Research

Think about the organs that our bones protect.
Support—backbone
Protection—cranium
Movement - joints

How do the size of straight and bent arms differ?

Comparative

Compare the size of straight arms and bent arms.
Measure around the top of an arm when it is straight and when it is bent. What do you notice?

How do animals and humans diets differ?

Comparative/classifying

compare and contrast the diets of different animals (including their pets) and decide ways of grouping them according to what they eat. They might research different food groups and how they keep us healthy and design meals based on what they find out.

What types of food do we need to eat?

Research

Humans need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat.
· Bread, rice, potatoes, pasta and other **starchy** foods.
· Milk and dairy
· Oils and spreads
· Meat, fish, eggs, beans and other non-dairy sources of protein.

What food groups do we have in our lunch boxes? Are they all balanced? If not, what food groups are missing and what foods could we add in / replace?

Pattern Seeking

Look inside children's lunch boxes. Children to write their findings and state what nutrition is missing and what they could include. Can they see a pattern forming?

Do male humans have larger skulls than those of female humans?

Observing over Time

Measure skulls from the class boys and girls observe their findings.

Vocabulary

Back bone	Column of linked bones down the middle of your back also known as the spine.
Bones	The hard parts inside your body that form your skeleton.
contract	To make smaller by drawing together; shrink or make tighter.
Elbow	Bend or joint between the upper arm and lower arm.
endoskeleton	The internal skeleton of an animal, especially the bony skeleton of vertebrates.
Exo skeleton	The protecting or supporting structure covering the outside of the body of many animals.
Joints	The junction between two or more bones,
muscles	Something inside your body that connects two bones and which you use when you make a movement.
organs	Apart of your body that has a particular purpose.
skeleton	The framework of bones inside your body.
tendons	A strong cord in a persons or animals body which joins a muscle to a bone.
vertebrate	A creature which has a spine.



Hurst Hill Primary School Knowledge Organiser

Science

The Human Body

Year 3

Autumn 1

Biology

Biology is the science that understands living organisms, including animals and plants.

Animals, including humans

Statutory requirements

Pupils should be taught to:

- identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat
- identify that humans and some other animals have skeletons and muscles for support, protection and movement.

Diagrams, Images and Symbols

