

# TMS Science Launchpad - Year 2023/2024

## Year 3 - Biology : Animals, including humans

### Substantive knowledge:

#### The Skeleton

##### Supports

Holds upright



##### Protects vital organs

Skull: brain

Ribs: lungs

Pelvis: reproductive organs



##### Movement:

Connected to bones and move the when they contract (*contract and relax*)

Movable joints connect bones



Exoskeleton - skeletons outside the body  
Endoskeletons - skeletons inside the body



Vertebrate - animals with a backbone

Invertebrate - animals without a backbone



Animals need the right types and amount of nutrition (carbohydrates, proteins, fats, vitamins, minerals, water fiber)

Animals cannot make their own food



Animals get their nutrition from what they eat.

A nutritious balanced diet is important



Different animals are adapted to eat different foods.



Nutrients, water and oxygen are transported within animals and humans



#### Vocabulary:

nutrients, nutrition, carbohydrates, protein, fats, vitamins, minerals, water, fibre, skeleton, bones, joints, endoskeleton, exoskeleton, vertebrates, invertebrates, muscles, contract, relax, support, protect

### Disciplinary knowledge

Observation over time



Identify and classify



Comparative tests



Pattern seeking



Identify and classify



How does our skeleton change over time? (from birth to death) (interpret results and draw conclusions)

How do the skeletons of different animals compare? (to be able to ask scientific questions)

How does the angle that your elbow/knee is bent affect the circumference of your upper arm/thigh? (to take measurements) (to gather and record results)

Do male humans have larger skulls than female humans? (draw conclusions)

What is in the food we eat? (to present results)

Research



What animals have a hydrostatic skeleton and what is it?