



# SCIENCE – Animals, including Humans

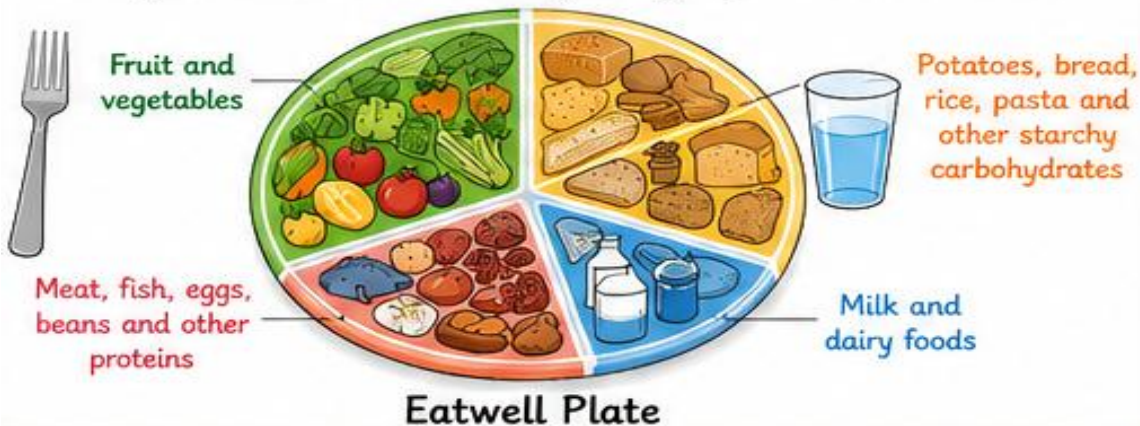


## Sticky Knowledge – Nutrition

|                            |                                                                                                                           |
|----------------------------|---------------------------------------------------------------------------------------------------------------------------|
| <b>Nutrition</b>           | Plants make their own food, but animals (including humans) get nutrients from the food they eat.                          |
| <b>Balanced diet</b>       | A balanced diet included the right amounts of foods from each food group to help keep our bodies healthy                  |
| <b>Nutrients</b>           | Carbohydrates, proteins, fats, vitamins, minerals, fibre and water all have important jobs in keeping our bodies healthy. |
| <b>Essential nutrients</b> | Vitamins, minerals, fibre and water are essential nutrients that help our bodies work properly.                           |

## Healthy Eating

A healthy diet contains a variety of foods from all food groups. Eating too much or too little of any food group can affect our health.



## Types of Skeletons

|                                                                   |                                                                       |                                                                                |
|-------------------------------------------------------------------|-----------------------------------------------------------------------|--------------------------------------------------------------------------------|
| <b>Endoskeleton</b><br><br>Inside the body<br>Humans, dogs, birds | <b>Exoskeleton</b><br><br>Outside the body<br>Insects, spiders, crabs | <b>Hydrostatic Skeleton</b><br><br>Supported by fluid<br>Earthworms, jellyfish |
|-------------------------------------------------------------------|-----------------------------------------------------------------------|--------------------------------------------------------------------------------|

## How Muscles Work

- Muscles pull, not push.
- Muscles work in pairs.
- One muscle contracts while the other relaxes.
- They pull on bones across a joint to create movement.

## Muscle Pair Example – Arm



## Functions of the Human Skeleton

|                                                                      |                                                                                                  |                                                                               |
|----------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|
| <b>Support</b><br><br>The skeleton gives our body shape and support. | <b>Protection</b><br><br>The skeleton protects important organs like the heart, brain and lungs. | <b>Movement</b><br><br>The skeleton works with muscles to help our body move. |
|----------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|

## Sticky Knowledge – skeletons and Muscles

|                                  |                                                                                                     |
|----------------------------------|-----------------------------------------------------------------------------------------------------|
| <b>Skeletons</b>                 | There are three different types of skeletons: Endoskeletons, exoskeletons and hydrostatic skeletons |
| <b>Muscles</b>                   | Muscles work in pairs to pull on bones at joints, allowing movement.                                |
| <b>Movement</b>                  | Bones cannot move by themselves. Muscles contract and relax in pairs to create movement             |
| <b>Functions of the skeleton</b> | The human skeleton supports the body, protects vital organs and helps us move.                      |

## Scientific Lines of Enquiry

