

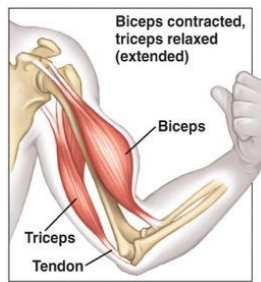
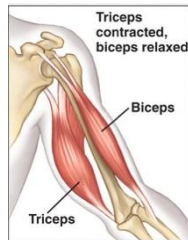
Key Knowledge:

Overview

- The human **skeleton** is designed to **protect** our **organs**, **support** our movements and provide shape to our bodies.
- There are three types of **skeleton** – an endoskeleton, exoskeleton and a hydrostatic skeleton.
- All animals need water, air and food to survive.
- Vertebrates have a backbone and invertebrates do not.
- Vertebrates have an endoskeleton but invertebrates can have either an exoskeleton or a hydro static skeleton.

The Human Body

- **Muscles** work in pairs to move the **bones** they are attached by taking in turns to **contract** and **relax**.
- **Muscles** are connected to the **bones** by **tendons**.
- **Joints** are where **bones** meet and allow our bodies to move. There are different types of **joint**:
 1. Ball and Socket
 2. Hinge **joint**
 3. A sliding **joints**



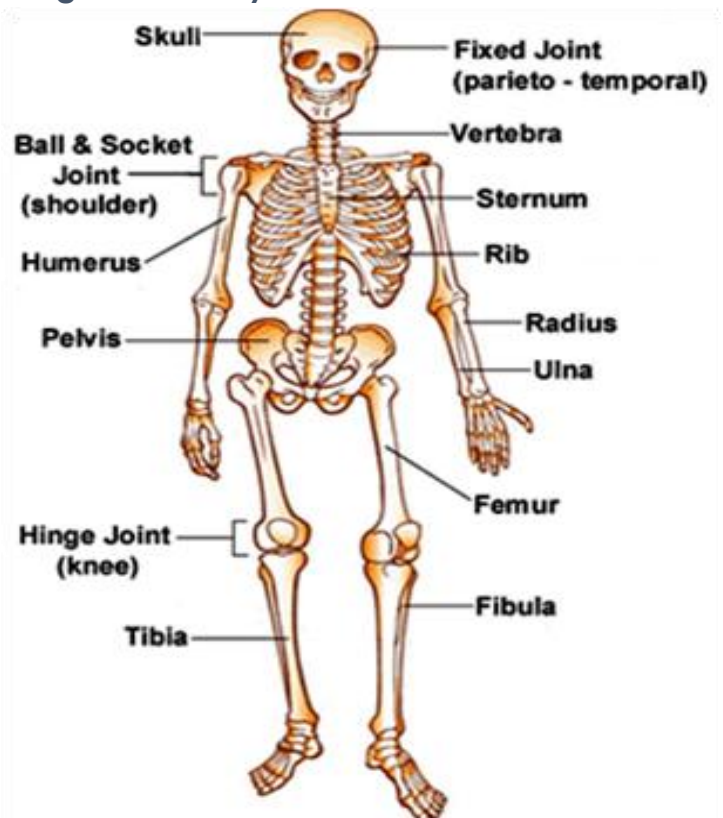
Different types of skeletons

- An endoskeleton is on the inside of an animals body.
- An exoskeleton exists on the outside of animals body and **supports** and **protects** animals. These have to be shed and a new **skeleton** is grown.
- A hydrostatic skeleton is made up mainly of water and is used for movement and **support**. These **skeletons** are the most flexible and are surrounded by muscle.

Key Vocabulary:

- Bones** - The hard parts inside your body which form the skeleton.
- Contract** - To make smaller by drawing together; shrink or make tighter.
- Joints** - The junction between two or more bones.
- Muscles** - Something inside your body, which connect s two bones and you, use when you move.
- Organs** - A part of your body that has a particular purpose.
- Protect** - Protecting something means to prevent it from being harmed. Bones protect our organs.
- Relax** - When a part of your body relaxes, or when you relax it, it becomes less stiff.
- Skeleton** - The framework of bones in your body.
- Support** - To hold something up.
- Tendons** - A strong cord inside an animals or persons body which connects a muscle to a bone.

Diagrams and Symbols:



Possible Experiments:

- Match different animals to their matching **skeletons**.
- Explore what would happen to humans if we did not have **skeletons**.
- Identify which **bones** are used to **support**, **protections** and **movement**.
- Show and feel how **muscles contract** and **relax**.
- Group animals with and without **skeletons** and compare how they move.

Key Knowledge:

Overview

- All animals need air, food and water to survive.
- Humans cannot make their own food – we need to eat plants and animals to get our **energy**.
- **Healthy balanced diets** lead to **healthy**, active people.
- To stay **healthy**, humans need to exercise, eat a **balanced diet**, and be **hygienic**.

Food Types

There are 5 different food types:

- Fruit and Vegetables
- 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.



Nutrients

- We need many different **nutrients** in order to survive.
- Each nutrient has a different role to play.
- Protein helps us grow and helps our body repair itself.
- Carbohydrates give us **energy**.
- Fats give us **energy**.
- Vitamins help keep our bodies **healthy**.
- Minerals also helps to keep our bodies **healthy**.
- Fibre helps us to digest the foods that we have already eaten.
- Water helps to move **nutrients** in your body and get rid of waste that we do not need.



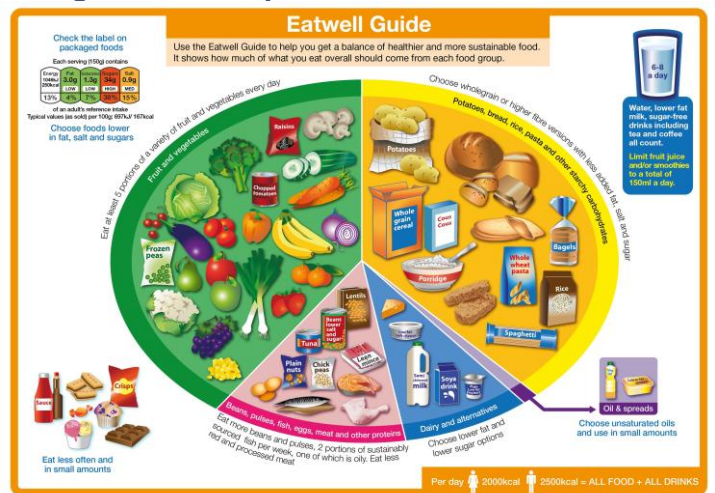
Possible Experiments:

- Research how different foods make a varied diet & design meals based on this.
- Learn how to and prepare a healthy meal **hygienically**.
- Compare/contrast the diets of different animals
- Prepare a presentation based on healthy eating.
- Describe what happens if one part is missing from a **balanced diet** and how some groups of people may compensate for this.

Key Vocabulary:

- Balanced Diet** - A variety of foods with different nutrients that you regularly eat.
- Disease** - An illness which affects humans, plants and animals.
- Energy** - The ability and strength to do physical things – we get this from the foods we eat.
- Healthy** - Well and not suffering from any illness.
- Nutrients** - Substances that help plant and animals grow.
- Saturated fats** - Types of fats that are considered to be less healthy and should only be consumed in small amounts.
- Unsaturated fats** - Fats that give you energy, vitamins and minerals.
- Starchy** - Foods that contain a lot of starch and provides energy.
- Hygiene** - Keeping yourself and your surroundings clean, especially in order to prevent illness or the spread of diseases.

Diagrams and Symbols:



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