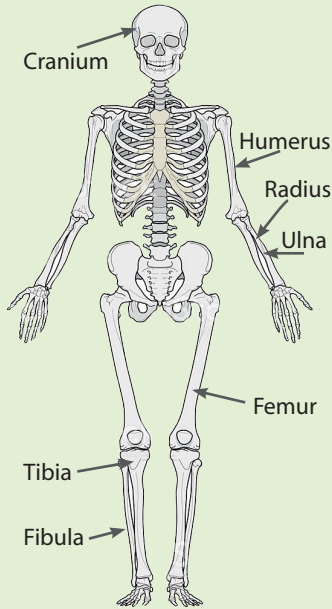


Movement

**FUNCTION:** The skeletal system provides support, movement, protection & blood production.

**Antagonist and agonist muscles** often occur in pairs called **antagonistic** pairs. As one **muscle** contracts, the other relaxes.

An example of antagonistic pairs is the **biceps** and **triceps**. When the triceps relax the biceps contract to lift your arm.



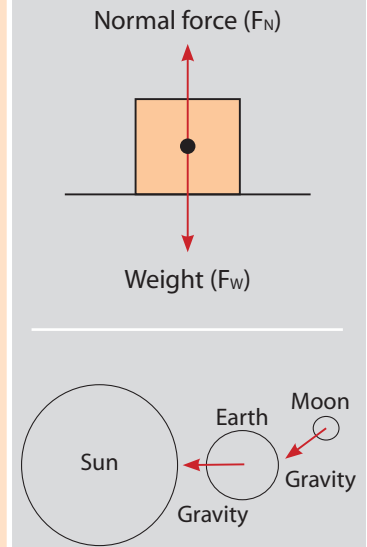
Diet

**Deficiency diseases**

- Kwashiorkor** (lack of protein)
  - Scurvy** (lack of vitamin C)
  - Brittle bones** (lack of calcium)
  - Rickets** (lack of vitamin D)
- Obesity is associated with other diseases such as arthritis, heart disease, diabetes, and breast cancer.

|                                | Where do we get this nutrient? | Function in the body  |
|--------------------------------|--------------------------------|---|
| <b>Carbohydrates</b>           | Bread, Pasta, Rice, Potatoes   | Provides the body with energy                                 |
| <b>Proteins</b>                | Fish, Meat, Nuts, Eggs         | Important for growth and repair                               |
| <b>Fats</b>                    | Butter, Cheese, Oil, Chocolate | Used as an energy store and for insulation                    |
| <b>Fibre</b>                   | Bran flakes, Oatmeal, Cereal   | Keeps the digestive system healthy                            |
| <b>Vitamins &amp; Minerals</b> | Fruit & Vegetables             | Helps your body to work properly and boost your immune system |

Gravity



Space

Scientists use the **light year** as a unit of astronomical distance. It is the distance travelled by light in one year.

A **galaxy** is a group of stars held together by gravity. Our solar system is within the **Milky Way** galaxy.

**Andromeda** is the next closest galaxy to the Milky Way.

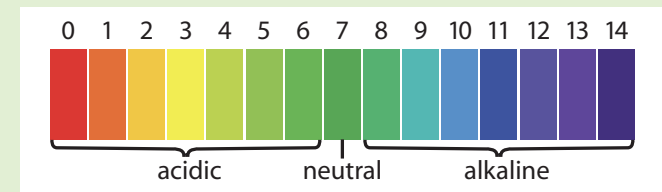


Acids & Alkalis

Examples of **acids**: battery acid, vinegar, orange juice

Examples of **alkalis**: bleach, blood, toothpaste, dishwasher tablets

These colours are seen when a **universal indicator** is placed in acids & alkalis.



Periodic Table

All metals, except Mercury, are solid at room temperature.

**Metals** conduct electricity and heat, are **malleable**, dense and **sonorous** (ring like a bell). **Non-metals** do not conduct electricity and heat, are **brittle** and have a low **density**.

|    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| 1  | 2  |    |    |    |    |    |    |    | 3  | 4  | 5  | 6  | 7  | 0  |    |    |    |
|    |    |    |    |    |    |    |    |    |    |    |    |    |    | He |    |    |    |
| Li | Be |    |    |    |    |    |    |    | B  | C  | N  | O  | F  | Ne |    |    |    |
| Na | Mg |    |    |    |    |    |    |    | Al | Si | P  | S  | Cl | Ar |    |    |    |
| K  | Ca | Sc | Ti | V  | Cr | Mn | Fe | Co | Ni | Cu | Zn | Ga | Ge | As | Se | Br | Kr |
| Rb | Sr | Y  | Zr | Nb | Mo | Tc | Ru | Rh | Pd | Ag | Cd | In | Sn | Sb | Te | I  | Xe |
| Cs | Ba | La | Hf | Ta | W  | Re | Os | Ir | Pt | Au | Hg | Tl | Pb | Bi | Po | At | Rn |
| Fr | Ra | Ac |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |

Metals Non-metals

**Non-metals:** Hydrogen, Helium, Boron, Carbon, Nitrogen, Oxygen, Fluorine, Neon, Silicon, Phosphorus, Sulphur, Chlorine, Argon

**Metals:** Lithium, Beryllium, Sodium, Magnesium, Aluminium, Potassium, Calcium

**Neutralisation reaction:** Acid + Alkali → Salt + Water

|         | Colour of red litmus | Colour of blue litmus |
|---------|----------------------|-----------------------|
| Acid    | stays red            | turns red             |
| Alkali  | turns blue           | stays blue            |
| Neutral | turns blue           | stays blue            |