



Science

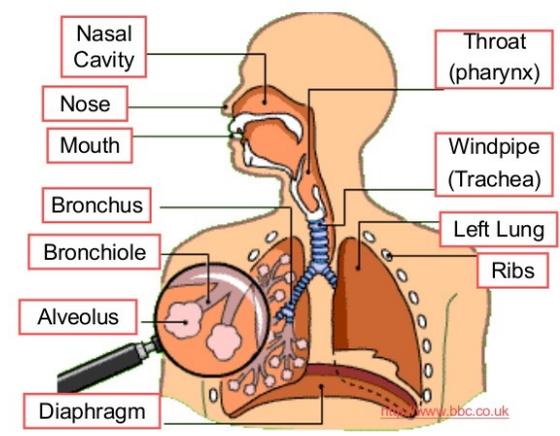
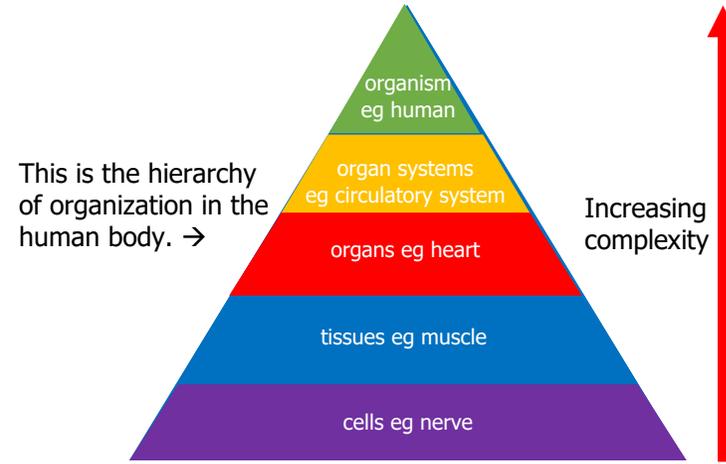
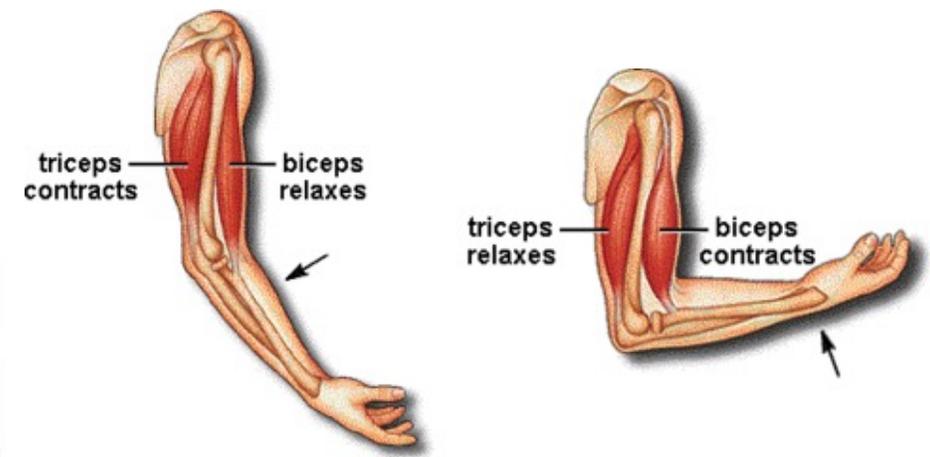


Section 1: Levels of organisation		
Structure	Definition	Example
Cells	The basic unit of all living things except viruses. In advanced organisms, cells consist of a nucleus (which contains genetic material), cytoplasm, and organelles, all of which are surrounded by a cell membrane.	Animal: nerve, muscle, red blood cell, Plant: root hair and leaf cell.
Tissue	A group of similar cells that work together to perform a certain function.	Animal: muscle, nervous tissue, Plant: xylem.
Organ	A group of different tissues that work together to perform a certain function	Animal: brain, heart liver, stomach, Plant: stem, leaf, root.
Organ system	A group of different organs that w.....	Animal: circulatory system Plant: flower.

Section 3: Breathing

When you **inhale**, **muscles** between your ribs and the diaphragm **contract**. This **increases** the volume inside your chest. The **pressure decreases** and the **air is drawn into** the lungs.

When you **exhale**, **muscles** between your ribs and the diaphragm **relax**. This **decreases** the volume inside your chest. The **pressure increases** and **air is forced out** of your lungs.



Section 4: Skeleton

The skeleton is made up of bones. It has four important functions: **1.** support the body, **2.** protect the organs, **3.** allow movement and **4.** make blood.

Red and white **blood cells are produced in bone marrow** found in the centre of some bones.

Section 2: Gas exchange

Gas exchange takes places inside the **lungs** – **oxygen** is take in and **carbon dioxide** is given out.

Oxygen enters the body through the **mouth and nose**. It then travels down the **windpipe**, through a **bronchus**, then a **bronchiole**, into an **alveolus**, and **diffuses** into the blood.

Exhaled air is warmer and contains **more carbon dioxide and water vapour than inhaled** air, but **less oxygen**.

Section 5: Movement - joints

Joints occur where two or more bones join together.

Cartilage in joints stop bones rubbing together.

Bones are held together by **ligaments**.

Section 6: Movement - muscles

Antagonistic muscles are pairs of muscles that work together at a joint. When **one muscle contracts**, the **other muscle relaxes**.