

Anatomy and Physiology

Musculoskeletal system

The skeleton allows movement

Muscles are attached to bones by tendons.

Bones in arm;

Humerus Radius Ulna (How are U?)



Respiratory System

Includes mouth, nose, windpipe and lungs

Inspiration (breathing in)

Rib cage moves up and out.
Diaphragm flattens out - larger space for lungs to expand

Expiration (breathing out)

Ribs to move down and in.
Diaphragm moves up - smaller space so air is forced out.

Breathing rate increases with exercise as the muscles demand more oxygen.

Aerobic - with oxygen

Anaerobic - without oxygen - short intense exercise eg sprint for the ball

Antagonistic Muscles;

Work in pairs

Eg 1 Biceps and triceps

Bend arm- bicep contracts, tricep relaxes.

Straighten arm - tricep contracts, Bicep relaxes

Cardiovascular System

The **heart** is a muscle that contracts and relaxes to pump blood around the body

Arteries - blood vessels that carry oxygenated blood away from the heart to the muscles.

Veins - blood vessels that carry deoxygenated blood back to the heart.

Heart rate increases with exercise as the muscles demand more oxygen.

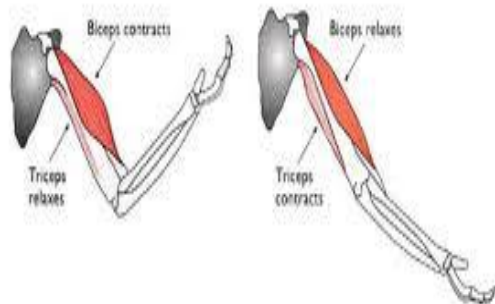
Long term benefits;

Increase cardio-vascular endurance

Weight loss

Reduce risk of heart disease

MUSCLES WORK IN PAIRS TO MOVE A BONE



Joints

'A joint is a place where two or more bones meet'

Hinge joint eg elbow, knee. Allow 180 degrees movement.