

centrifugal force

a force directed away from the centre of a rotating body

centripetal force

a force directed towards the centre of a rotating body

circuit training

requires participants to perform set exercises at a number of stations, working through the course in the shortest period of time

circulatory or cardiovascular system

a network that distributes blood containing oxygen and nutrients and collects wastes; it comprises the heart, arteries, blood and veins

concentric

the most common type of muscular contraction; during this contraction, the muscle shortens, causing movement at the joint

coordination

the ability to harmonise the messages from the senses (such as sight, feel and sound) with parts of the body to produce movements that are smooth, skillful and well controlled

density

the mass per unit volume of a body or object

diastolic pressure

the minimum or lowest pressure recorded when the heart is relaxing and filling (diastole)

displacement

the movement of a body from one location to another in a particular direction, or an 'as the crow flies' measurement

drag

the force that opposes the forward motion of a body or object, reducing its speed or velocity

eccentric

a contraction that occurs when the muscle lengthens while under tension; the action often happens with the assistance of gravity

energy pathway

a system that converts nutrients to energy for exercise

expiration

air movement from the lungs to the atmosphere; breathing out

FITT

an acronym for frequency, intensity, time and type; it embodies a fitness principle that ensures a program has the quantity and quality of movement necessary to produce the desired physical improvement

flat bones

bones that have a broad surface and serve as places of attachment for muscles and to protect vital organs

flexibility

the range of motion about a joint or the ease of joint movement

float

to maintain a stationary position on the surface of the water

fluid mechanics

a branch of mechanics that is concerned with properties of gases and liquids

force (biomechanics)

the push or pull acting on a body

freely movable or synovial joint

a joint that allows maximum movement; most joints in the body are synovial joints e.g. the hip joint

heart rate

the number of times
the heart beats per
minute (bpm)

hydrogen ion

a hydrogen atom that has lost
its electron, the concentration
of which determines the pH of
a solution

hypokinetic disease

a term given to modern
lifestyle diseases
associated with inactivity

immovable or fibrous
joint

a joint where no movement is
possible e.g. this type of joint
include the bones of the
cranium, which are fused in
lines called sutures

insertion (of a muscle)

the point of attachment at
the movable end; this end
tends to be away from the
body's main mass