

SPORT key terms:

These are in order and categorised a bit to help you out. Be creative in how you organise them. Make it work for your brain. These will become study resources to use throughout the year. I have written the Sections on top in case you want to colour co-ordinate or put into piles.

SUPPORT:

-[Pearson Active Learn](#) (if you have the textbook)

-[Brian Mac](#)

-[YouTube](#): Mike Tyler has videos on every body system

A: Skeletal System:

Bones: cranium, clavicle, ribs, sternum, scapula, humerus, radius, ulna, carpals, metacarpals, phalanges, pelvis, vertebral column (cervical, thoracic, lumbar, sacrum, coccyx), femur, patella, tibia, fibula, tarsals, metatarsals

Type of bone (and purpose) – long, short, flat, sesamoid, irregular

Areas of the skeleton to include axial skeleton, appendicular skeleton, spine, curves of the spine, neutral spine alignment, postural deviations (kyphosis, scoliosis)

Process of bone growth – osteoblasts, osteoclasts, epiphyseal plate

Function of skeletal system

Classification of joints – fibrous (fixed), cartilaginous (slightly moveable), synovial (freely moveable)

Types of synovial joints (ball and socket, condyloid, gliding, saddle, hinge, pivot).

Components of synovial joints and their use in sporting techniques and actions (joint capsule, bursa, articular cartilage, synovial membrane, synovial fluid, ligaments)

Range of movement used in sporting actions (flexion, extension, dorsiflexion, plantarflexion, lateral flexion, horizontal flexion and horizontal extension, hyperextension, abduction, adduction, horizontal abduction and adduction, rotation, circumduction)

Weight-bearing exercise

Ligament and Tendons

Skeletal disease – arthritis, osteoporosis

Resistance training, resistance training issues

Types of muscles and their use in sport. Cardiac, Skeletal, Smooth

B: Muscular System:

Major skeletal muscles of the muscular system and location: Deltoids, biceps, triceps, wrist flexors, wrist extensors, supinators and pronators, pectorals, abdominals, obliques, quadriceps, hip flexors, tibialis anterior, erector spinae, trapezius, latissimus dorsi, gluteals, hamstrings, gastrocnemius, soleus

Antagonistic muscle pairs

Agonist, Antagonist, Synergist, Fixator

Skeletal muscle contraction: Isometric, Concentric, Eccentric

Fibre types: Type I, Type IIa, Type IIx

All or Nothing Law

Muscle pliability

Microtears

Hypertrophy

Myoglobin

Mitochondria

Lactate

Cramp – involuntary sustained skeletal muscle contraction

C: Respiratory System:

Structure of the respiratory system: nasal cavity, epiglottis, pharynx, larynx, trachea, bronchus, bronchioles, lungs, alveoli, diaphragm, thoracic cavity, Intercostal muscles (external and internal)

Mechanisms of breathing (inspiration and expiration) at rest and during exercise

Gaseous exchange

Lung volumes: Tidal volume, Vital capacity, Residual volume, Total lung volume, Minute ventilation (VE)

Neural control

Chemical control

Medulla oblongata

Chemoreceptors

Diffusion

Asthma

Effects of altitude/partial pressure

Altitude Training

D: Cardiovascular System

Structure of the cardiovascular: atria, ventricles, bicuspid valve, tricuspid valve, semi-lunar valves, septum, major blood vessels (aorta, vena cava, pulmonary artery, pulmonary vein), coronary arteries

Structure of blood vessels – arteries, arterioles, veins, venuoles, capillaries

Composition of blood – red blood cells, plasma, white blood cells, platelets

Oxygen

Nutrients

Waste products

Carbon Dioxide

Thermoregulation – vasoconstriction, vasodilation of blood vessels

Sinoatrial node (SAN), Atrioventricular node (AVN), Bundle of His, Purkinje fibres

Sympathetic and Parasympathetic nervous system

Anticipatory rise

Cardiac output

Cardiac hypertrophy

Stroke Volume

Heart rate

Resting heart rate

Working heart rate

Recovery heart rate

Sudden arrhythmic death syndrome (SADS)

Blood pressure: High blood pressure, low blood pressure

Hyperthermia/hypothermia

E: EnergySystem

ATP

ADP

ATP-PC (alactic) system

Anaerobic

Recovery time

Anaerobic glycolysis

Glucose and glycogen

Lactate System

Aerobic system

Food fuel source

Aerobic glycolysis

Krebs cycle

Electron transport chain

Creatine

Diabetes and hypoglycaemic attacks