# Paper 1 revision list

## Paper 1 – Revision List

## Skeletal System

**Learners must:**

- know the name and location of the following bones in the human body:
  - cranium
  - vertebrae
  - ribs
  - sternum
  - clavicle
  - scapula
  - pelvis
  - humerus
  - ulna
  - radius
  - carpals
  - metacarpals
  - phalanges
  - femur
  - patella
  - tibia
  - fibula
  - tarsals
  - metatarsals.

- understand and be able to apply examples of how the skeleton provides or allows:
  - support
  - posture
  - protection
  - movement
  - blood cell production
  - storage of minerals.

- know the definition of a synovial joint
- know the following hinge joints:
  - knee – articulating bones – femur, tibia
  - elbow – articulating bones – humerus, radius, ulna
- know the following ball and socket joints:
  - shoulder – articulating bones – humerus, scapula
  - hip – articulating bones – pelvis, femur.

**Learners must:**

- know the types of movement at hinge joints and be able to apply them to examples from physical activity/sport:
  - flexion
  - extension
- know the types of movement at ball and socket joints and be able to apply them to examples from physical activity/sport:
  - flexion
  - extension
  - rotation
  - abduction
  - adduction
  - circumduction.

- know the roles of:
  - ligament
  - cartilage
  - tendons.

## Muscular System

**Learners must:**

- know the name and location of the following muscle groups in the human body and be able to apply their use to examples from physical activity/sport:
  - deltoid
  - trapezius
  - latissimus dorsi
  - pectorals
  - biceps
  - triceps
  - abdominals
  - quadriceps
  - hamstrings
  - gluteals
  - gastrocnemius.
- know the definitions and roles of the following and be able to apply them to examples from physical activity/sport:
  - agonist
  - antagonist
  - fixator
    - antagonistic muscle action.

## Movement Analysis

**Learners must:**

- know the three classes of lever and their use in physical activity and sport:
  - 1st class
    - neck
  - 2nd class
    - ankle
  - 3rd class
    - elbow
- know the definition of mechanical advantage.
- know the location of the planes of movement in the body and their application to physical activity and sport:
  - frontal
  - transverse
  - sagittal
- know the location of the axes of rotation in the body and their application to physical activity and sport:
  - frontal
  - transverse
  - longitudinal.

## Cardiovascular and Respiratory System:

- know the double-circulatory system (systemic and pulmonary)
- know the different types of blood vessel:
  - arteries
  - capillaries
  - veins
- understand the pathway of blood through the heart:
  - atria
  - ventricles
  - bicuspid, tricuspid and semilunar valves
  - septum and major blood vessels:
    - aorta
    - pulmonary artery
    - vena cava
    - pulmonary vein
- know the definitions of:
  - heart rate
  - stroke volume
  - cardiac output
- know the role of red blood cells.

- understand the pathway of air through the respiratory system:
  - mouth
  - nose
  - trachea
  - bronchi
  - bronchiole
  - alveoli
- know the role of respiratory muscles in breathing:
  - diaphragm
  - intercostals
- know the definitions of:
  - breathing rate
  - tidal volume
  - minute ventilation
- understand about alveoli as the site of gas exchange.

- know the definitions of:
  - aerobic exercise
  - anaerobic exercise
- be able to apply practical examples of aerobic and anaerobic activities in relation to intensity and duration.