

# Paper 1

- Bones – identification, functions
  - Structure of the skeleton – shape/purpose
  - Muscles – identification
  - Structure and components of a synovial joint (+ tendons)
  - Types of synovial joint – 2 main
  - Movement at joints
  - Muscle movements - agonist/antagonist, isometric/isotonic
  
  - Pathway of air
  - Gaseous exchange
  - Blood vessels - structure
  - Structure of the heart
  - Cardiac cycle
  - CO, SV, HR
  - Mechanics of breathing – inhale/exhale, changes through exercise
  - Spirometer trace – draw & interpret
  
  - Aerobic/Anaerobic exercise – definitions, equations  
**Justify** activities that are each
  - EPOC
  - Recovery from exercise – cool down diet manipulation, ice bath, massage.  
**Evaluate** these methods
  - Immediate, short and long term effects of exercise
  
  - 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> class levers. Draw and be able to identify where these happen in the body
  - Mechanical advantage
  - **Analysis** of basic movements in sporting examples
- Planes and Axes  
SALLY TOOK - somersault  
FRED'S STICK - cartwheel  
TO LONDON - ice skating spin
  
  - Health and fitness – definitions & relationships
  - Components of fitness – define, link to sports and activities
  - Fitness testing – know/explain tests for each component.  
**Evaluate** their relevance to performers in different sports
  - Reasons for fitness testing
  - Limitations of fitness testing
  - How data is collected for fitness test
  
  - Principles of Training – SPORT/FITT
  - Application to improve fitness
  - Types/Methods of training
  - - Advantages and disadvantages.  
**Evaluate** appropriateness for different sports
  
  - Calculating training intensities
  - Training zones and thresholds
  - 1 rep max & use for strength or muscular endurance training
  - Considerations to prevent injury
  - Altitude training. **Evaluate** benefits and limitations for different sports
  - 3 training seasons. **Justify** the characteristics of the seasonal aspects to different sports
  - Warm up and cool down. **Justify** appropriate elements for different sports
  - Benefits of warm up & cool down
  
  - USE OF DATA – Quantitative and qualitative. Drawing and **analysing** data

## Paper 2

- Linking physical activity to physical, mental and social wellbeing.
- Benefits of physical activity on fitness
- Consequences of a sedentary lifestyle
- Obesity – effects on performance. Effects on physical, social and mental health
- Somatotypes – **Justify** a suitable body type for a sport
  
- Energy – measurement and requirements for male/female
- Balanced diet – reasons for
- Proportion of diet for fat, protein and carbohydrates. Their roles (plus vitamins/minerals)
- Dehydration – definition and effects **Evaluate** the consequences to performance
  
- Classification of skill. **Justify** a classification for sporting examples
- Goals – performance/outcome. The use & **evaluation** of setting each type of goal
- Use of SMART targets to improve performance
- Basic information processing model  
Input – Decision making – Output – Feedback
- 4 Types of guidance. Choose and **justify** appropriate type for beginners/elite
- Feedback – positive/negative, extrinsic/intrinsic, knowledge of results/knowledge of performance **justify** the appropriate type for beginners/elite
  
- Mental Preparation – arousal
  
- Inverted U theory – draw for different sports. Relationship between arousal & performance
- Optimal arousal for different sports
- Controlling arousal with Stress Management Techniques
- Direct/indirect aggression
- Introvert/Extrovert – characteristics, arousal levels, suitable sports
- Motivation – intrinsic/extrinsic
  
- Engagement patterns in physical activity. Different social groups
- **Justify** the links between the engagement patterns and different social groups
  
- Commercialisation – define. ‘Golden Triangle’
- Sponsorship & Media... definition & types
- **Justify** the positive and negative impacts of sponsorship & the media on the different groups
- Technology – **justify** the positive and negative impacts on the different groups
  
- Conduct of performers - etiquette etc.
- Spectator behaviour – positive and negative influences at events
- Hooliganism – reasons for it. **Evaluate** the strategies used to combat hooliganism
  
- Prohibited substances (drugs). Positive and negative physical effects for each
- Blood doping – how it occurs, positive and negative effects
  
- +ve & -ve of taking PED for the performer and sport/event.