



# Year 10 Syllabus in a nutshell

PE





## Year 10 Syllabus in a nutshell - PE

| Content  | Learning Objective  |
|--|---|
| 1 Anatomy and physiology                                 | <ul style="list-style-type: none"> <li>• To know the functions of the skeleton</li> <li>• To know the bones that make up the skeleton</li> <li>• To know the joint types</li> <li>• To know the joint structure</li> <li>• To know the movement at the joints</li> <li>• To know the location of the muscles</li> <li>• To know the antagonistic muscle action at the shoulder, elbow, hip, knee and ankle</li> <li>• To know the differences between muscle fibre types</li> </ul>   |
| 2. Respiratory System                                    | <ul style="list-style-type: none"> <li>• To know the pathway of the air into the body</li> <li>• To identify and explain the characteristics of alveoli that enable gaseous exchange to occur</li> <li>• To know the mechanics of breathing including the function of the diaphragm and intercostal muscles</li> <li>• To describe and explain breathing volumes and minute ventilation and the effect of exercise on these volumes</li> </ul>  |
| 3. Circulatory system                                    | <ul style="list-style-type: none"> <li>• To know the components of blood</li> <li>• To understand the role of haemoglobin in carrying oxygen and carbon dioxide</li> <li>• To know the structure and function of all blood vessels</li> <li>• To know the heart structure and function</li> <li>• To describe the pathway of the blood through the heart</li> <li>• To explain cardiac output, stroke volume and heart rate and the effect of exercise on the heart</li> </ul>  |
| 4. Energy supply and the effects of exercise on the body | <ul style="list-style-type: none"> <li>• To describe aerobic and anaerobic respiration, outlining how energy can be released</li> <li>• To describe how duration and intensity effect energy demands</li> <li>• To understand recovery is required after exercise, including what Excess Post-exercise Oxygen Consumption (EPOC)</li> <li>• To know what factors effect recovery time</li> <li>• To describe and explain the short-term effects of exercise on a performer</li> <li>• To describe the long-term effects of exercise on a performer</li> </ul> |
| 5. Health and Fitness                                    | <ul style="list-style-type: none"> <li>• To describe physical health and wellbeing</li> <li>• To describe mental health and wellbeing</li> <li>• To describe social health and wellbeing</li> <li>• To define fitness</li> <li>• To understand the relationship between health and fitness</li> <li>• To explain the positive effects of exercise and fitness on physical, mental and social health</li> </ul>  |
| 6. Diet and Energy sources                               | <ul style="list-style-type: none"> <li>• To describe the function of nutrients including examples</li> <li>• To describe energy balance suitable for physical activity</li> <li>• To explain how energy demands may differ for different performers</li> <li>• To describe how energy is derived from food sources</li> </ul>   |



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| 7. Fitness, testing and Training | <ul style="list-style-type: none"> <li>• To know the health-related components of fitness (ABCR)</li> <li>• To know the skill related components of fitness (FPMSCS)</li> <li>• To know how to carry out fitness tests for cardiovascular endurance, flexibility, muscular endurance, power, speed, strength, agility, balance, co-ordination and reaction time</li> <li>• To understand the reasons for fitness testing</li> <li>• To describe and explain V02 max and its importance as a measure of cardiovascular</li> <li>• To describe the factors that affect V02 max.</li> <li>• To apply SPORT and FITT principles to training programmes and to identify the dangers of over training</li> <li>• To describe and explain the advantages and disadvantages of the following training methods; Continuous training, Weight training, Fartlek training, Plyometric training, Circuit training, HIIT training.</li> <li>• To understand the reasons for carrying out altitude training</li> <li>• To describe the physiological and the psychological reasons for a warm-up and cool-down.</li> </ul>                                       |
| 8. Risk and Injury               | <ul style="list-style-type: none"> <li>• To describe the difference between real risk and perceived risk</li> <li>• To describe a risk assessment and strategies to reduce the risk and severity of injury</li> <li>• To describe the potential causes of and simple treatments for injuries and explain the causes of bruises, muscle, tendon and ligament injuries</li> <li>• To describe the RICE method in treating these injuries</li> </ul>   |
| 9. Leisure and Recreation        | <ul style="list-style-type: none"> <li>• To define key terms of Leisure time, Physical recreation, Play and Sport.</li> <li>• To identify and explain factors that influence what recreational activities people do during leisure time</li> <li>• To identify and explain the factors that influence growth in leisure activities</li> <li>• To describe the Sports Performance Pyramid</li> <li>• To describe the different types of sponsorship and the advantages and disadvantages sponsorship can provide different groups.</li> <li>• To know the different forms of media and the advantages and disadvantages of media coverage to the performer, the sport and the spectators.</li> <li>• To understand the difference between being an Amateur and Professional in sport</li> <li>• To describe a global event and provide examples</li> <li>• To understand the advantages of hosting a global event for that city or nation</li> <li>• To identify and explain how technology in sport has impacted officials, performers, the spectators and audience and the sport along with the positives and negatives it may bring.</li> </ul> |