



CURRICULUM PLAN PE GCSE practical and theory

YEAR	TRINITY 2	MICHAELMAS 1	MICHAELMAS 2
10 GCSE	<p>Component 1</p> <p>1.1 Skeletal System & muscular system P2-22.</p> <p>Skeletal system – functions applied to performance in physical activities and sports - Protection of vital organs, muscle attachment, joints for movement, platelets, red and white blood cell production, storage of calcium and phosphorus. Classification of bones and how function of bone type is relevant to performance in physical activities and sports. Structure of the skeletal system – bone names. Role of ligaments/tendons in physical activity. Movements at joints/classification of joints (pivot, hinge, ball and socket, codyloid). Muscular system – classification of muscles and their roles when participating in physical activity and sport. Characteristics of muscle types and location (cardiac, voluntary, involuntary). Antagonistic pairs – biceps/triceps, hamstrings/quadriceps, gastrocnemius/anterior tibialis, hip flexors/gluteals. Fast and slow twitch muscle fibres and how fibre type impacts on their use in physical activities.</p>	<p>Component 1</p> <p>1.2 Cardio-respiratory system P22-35.</p> <p>Cardiovascular system – functions (transport, blood clotting, temperature control) applied to performance in physical activities. Structure of the cardiovascular system applied to performance in physical activities. Structure of arteries, capillaries and veins and how this relates to function and importance during physical activity and sport in terms of: blood pressure; oxygenated; deoxygenated Vascular shunting -(vasoconstriction, vasodilation) and the need for redistribution of blood flow (vascular shunting) during physical activities compared to when resting blood and changes due to physical exercise. Function and importance of components of blood for physical activity and sport (red and white blood cells, plasma, platelets.) Respiratory system – composition of air, lung volumes and changes due to physical activity. Location of main components and the role in movement of oxygen and carbon dioxide into and out of the body. Structure and function of the alveoli and the impact of varying intensities of exercise (aerobic/anaerobic).</p>	<p>Component 1</p> <p>1.3 Anaerobic and aerobic exercise. P36-39.</p> <p>1.4 Short and long term effects of exercise. Use of data. P40-49.</p> <p>2.1 Lever systems. P51-55</p> <p>Energy sources - Fats as a fuel source for aerobic activity, carbohydrates as a fuel source for aerobic and anaerobic activity. The use of glucose and oxygen to release energy aerobically with the production of carbon dioxide and water, the impact of insufficient oxygen on energy release, the by-product of anaerobic respiration (lactic acid).</p> <p>Short term and long term effects of exercise- Muscular: lactate accumulation, muscle fatigue CV: heart rate, stroke volume and cardiac output Respiratory: on depth and rate of breathing.</p> <p>Data questioning using graphs. Interpretation and analysis of graphical representation of data associated with trends in heart rate and lactate accumulation.</p> <p>Lever systems and their use in physical</p>



		activity and sport (1 st , 2 nd , 3 rd). Mechanical advantage/disadvantage loads, efforts and range of movement of the body's lever systems and the impact on sporting performance.
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LENT 1	LENT 2	TRINITY 1
Component 1 2.2 Planes and axes of movement. P56-61 3.1 Relationship and fitness & the roles that exercise plays in both. P63-65. Component 1 3.2 Components of fitness, benefits for sport. Testing of fitness. P66-80. (Link with Practical) Planes and axes - Sagittal plane about the frontal axis when performing front and back tucked or piked somersaults. Frontal plane about the sagittal axis when performing cartwheels. Transverse plane about the vertical axis when performing a full twist jump in trampolining. Definitions of fitness, health, exercise and performance and the relationship between them Links between this topic and the PEP Components of fitness and the relative importance of these components in physical activity and sport. Theory: the value of fitness testing; the purpose of specific fitness tests; the selection of the appropriate	Component 1 3.3 Principles of training and application to PEP & Method. P81-97. 3.4 Long term effects of exercise. P98-101. Principles of training - Individual needs, specificity, progressive overload, FITT (frequency, intensity, time, type), overtraining, reversibility, thresholds of training (aerobic target zone: 60–80% and anaerobic target zone: 80%–90%, calculated using Karvonen formula). Methods of training - Continuous, Fartlek, circuit, interval, plyometrics, weight/resistance. Fitness classes for specific components of fitness, physical activity and sport (body pump, aerobics, pilates, yoga, spinning). The advantages and disadvantages of different training methods. Factors to consider when deciding the most appropriate training methods and training intensities for different physical activities and sports (fitness/sport requirements, facilities available, current level of fitness) Long term effects of exercise - Benefits to the musculo-skeletal system: increased bone density; increased strength of ligaments and	Component 1 3.5 How to optimise training and prevent injury p102-108. Performance enhancing drugs p108-112. 3.6 Warm up and cool down Identifying injury, treatment and common sports injuries (Concussion, fractures, dislocation, sprain, torn cartilage and soft tissue injury (strain, tennis elbow, golfers elbow, abrasions) RICE (rest, ice, compression, elevation). Injury prevention through: correct application of the principles of training to avoid overuse injuries; correct application and adherence to the rules of an activity during play/participation; use of appropriate protective clothing and equipment; checking of equipment and facilities before use, all as applied to a range of physical activities and sports. Performance-enhancing drugs (PEDs) and their positive and negative effects on sporting performance and performer lifestyle, including: anabolic steroids; beta blockers; diuretics; narcotic analgesics; peptide hormones (erythropoietin (EPO); growth hormones (GH)); stimulants; blood doping. Advantages and disadvantages.



fitness test for components of fitness; and the rationale for selection. Collection and interpretation of data from fitness test results. Analysis and evaluation of fitness test results against normative data tables.

tendons; muscle hypertrophy; the importance of rest for adaptations to take place; and time to recover before the next training session. Impact on performance in different types of activities.

Benefits to the cardio-respiratory system: decreased resting heart rate; faster recovery; increased resting stroke volume and maximum cardiac output; increased size/strength of heart; increased capillarisation; increase in number of red blood cells; drop in resting blood pressure due to more elastic muscular wall of veins and arteries; increased lung capacity/volume and vital capacity; increased number of alveoli; increased strength of diaphragm; and external intercostal muscles.

The purpose and importance of warm-ups and cool downs to effective training sessions and physical activity and sport. Phases of a warm-up and their significance in preparation for physical activity and sport. Activities included in warm-ups and cool downs



YEAR	TRINITY 2	MICHAELMAS 1	MICHAELMAS 2
<p>10 core</p>	<p>Component 2</p> <p>1.1 Physical, emotional and social health, fitness and well-being. P125-137.</p> <p>Physical, social and emotional well-being - how participation in physical activity and sport can improve social/psychological and physical health and how these benefits are achieved.</p>	<p>Component 2</p> <p>1.2 Consequences of a sedentary lifestyle. P138-143.</p> <p>1.3 Energy use, diet, nutrition and hydration. P144-152.</p> <p>Lifestyle choices in relation to: diet; activity level; work/rest/sleep balance; and recreational drugs (alcohol, nicotine). Positive and negative impact of lifestyle choices on health, fitness and well-being, e.g. the negative effects of smoking (bronchitis, lung cancer). A sedentary lifestyle and its consequences: overweight; overfat; obese; increased risk to long-term health, e.g. depression, coronary heart disease, high blood pressure, diabetes, increased risk of osteoporosis, loss of muscle tone, posture, impact on components of fitness.</p> <p>The nutritional requirements and ratio of nutrients for a balanced diet to maintain a healthy lifestyle and optimise specific performances in physical activity and sport Role of macronutrients: (carbohydrates, proteins and fats) for performers/players in physical activities and sports, carbohydrate loading for endurance athletes, and timing of protein intake for power athletes Role of micronutrients: (vitamins and minerals), water and fibre for performers/players in physical activities and sports. Dietary manipulation for sport (carb-loading, high protein and hydration). Optimum weight due to physical characteristics and variations according to role in physical activity.</p>	<p>Component 2</p> <p>2.1 Classification of skill. P154-155.</p> <p>2.2 Use of goal setting and SMART goals to improve and/or optimise performance. P156-163.</p> <p>2.3 Guidance and feedback on performance. P158-160</p> <p>2.4 Mental preparation. P161-164</p> <p>Classification of skill - Open-closed, basic (simple)-complex, and low organisation-high organisation continua. Types of practice- massed, distributed, fixed and variable. Application of knowledge of practice and skill classification to select the most relevant practice to develop a range of skills.</p> <p>Goal setting - SMART targets and the value of each principle in improving and/or optimising performance (specific, measureable, achievable, realistic, time-bound). Types of guidance (verbal, visual, mechanical and manual) – advantages and disadvantages of each. Practical links - Appropriateness of types of guidance in a</p>



		<p>variety of sporting contexts when used with performers of different skill levels.</p> <p>Types of feedback – concurrent, terminal, internal, intrinsic, extrinsic. Interpretation and analysis of graphical representation of data associated with feedback on performance. Appropriateness of types in a variety of sporting contexts when used with performers of different skill levels.</p> <p>Mental preparation – warm up and mental rehearsal.</p>
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LENT 1	LENT 2	TRINITY 1
<p style="text-align: center;">Component 2</p> <p>3.1 Engagement patterns of different social groups & Data Analysis P165-168.</p> <p>Factors impacting on participation in physical activity and the impact on participation rates, considering personal factors. Interpretation and analysis of graphical representation of data associated with trends in participation rates.</p> <p>3.2 Commercialisation of sport P169-172.</p> <p>3.3 Ethical and socio-cultural issues. P173-175</p> <p>The relationship between commercialisation, the media and physical activity and sport. The advantages and disadvantages of commercialisation and the media for: the sponsor; the sport; the player/performer; the spectator. Sportsmanship, gamesmanship, and the reasons for, and consequences of, deviance at elite level.</p>	<p>Exam technique and questions.</p> <p>Links between topics within each component. 9 mark questions for component 2.</p> <p style="text-align: center;">Practical</p> <p>Handball and/or climbing (cohort dependant)</p> <p style="text-align: center;">Practical schemes used here</p>	<p>Catch up any Component 1 lessons not completed.</p> <p>Practical off site to experience variety of methods of training.</p> <p>HIIT, Spin, Aerobics, Body pump, Yoga, pilates</p>



Review performance-enhancing drugs. Consider other types of deviancy in sport.

YEAR	TRINITY 2	MICHAELMAS 1	MICHAELMAS 2	LENT 1	LENT 2	TRINITY 1
10	<p>Athletics</p> <p>Fitness testing</p> <p>How and why we warm up and cool down – exercises /stages involved.</p> <p>Use of and need for a PARQ before exercise.</p> <p>Practical: the test protocol</p> <p>Fitness testing: cardiovascular fitness – Cooper 12 minute tests (run, swim), Harvard Step Test; strength – grip dynamometer; muscular endurance – one-minute sit-up, one-minute press-up; speed – 30m sprint; power – vertical jump; flexibility – sit and reach.</p>	<p>Netball x 6</p> <p>Football x 6</p>	<p>Handball</p>	<p>Climbing</p>	<p>Fitness testing and training methods practical.</p>	<p>Athletics</p>



YEAR	TRINITY 2	MICHAELMAS 1	MICHAELMAS 2	LENT 1	LENT 2	TRINITY 1
11	<p>Evaluation of mock PEP from lent 2 practical.</p> <p>Revision of topics relevant to PEP. Components of fitness, data analysis, performance analysis.</p> <p>Principles of training</p>	<p>PEP write up</p> <p>Key Assessment PEP</p>	<p>Revision</p> <p>1st lesson of the week</p> <p>Component 1 Topic 1 and 2</p> <p>2nd lesson of the week</p> <p>Component 2 Topic 1</p> <p>Key Assessment Netball/football Mock component 1</p>	<p>Revision</p> <p>1st lesson of the week</p> <p>Component 1 Topic 3.1-3.3</p> <p>2nd lesson of the week</p> <p>Component 2 Topic 2</p> <p>Key Assessment Handball/climbing Component 2 mock exam</p>	<p>Revision</p> <p>1st lesson of the week</p> <p>Component 1 Topic 3.4-3.6</p> <p>2nd lesson of the week</p> <p>Component 2 Topic 3</p> <p>Key Assessment Data Analysis</p>	<p>Revision specific to the needs of classes</p>

YEAR	TRINITY 2	MICHAELMAS 1	MICHAELMAS 2	LENT 1	LENT 2	TRINITY 1
11 Practical	<p>PEP preparation (fitness testing, data collection, planning and trial of fitness method)</p>	<p>PEP practical</p> <p>4 practical</p> <p>3 write up</p>	<p>Netball/football</p>	<p>Handball and /or climbing</p>	<p>Practice for moderation relevant to sports to being moderated</p>	<p>Revision specific to the needs of classes</p>