KEY 4 STAGE OVERVIEW (Long Term Planning)

Subject: GCSE Physical Education

Year 10

Week/ Lesson	Term	Topic	Knowledge	Skills
1	**Autumn T1**	**Health, Fitness and Well-Being (Paper 2: Health & Performance).** Physical, emotional and social health	• Definitions of physical, emotional & social health & well-being. • Factors influencing physical, emotional & social health. • Physical - How an increase of physical activity can improve health/ reduce health risks & how this is achieved. • Emotional – How physical activity & sport can improve emotional/ psychological health & how this is achieved. • Social – How physical activity can improve social health & how this is achieved.	Evaluation of factors which can affect physical, social & emotional health and well-being. Analytical response. Linking. Teamwork. Evaluation of one's own health.
2		Lifestyle choices	• Lifestyle choices in relation to: diet; activity level; work/rest/sleep balance; and recreational drugs (alcohol, nicotine)	Analysis of own lifestyle choices.
3		Impact of lifestyle choices	• Positive and negative impact of lifestyle choices on health, fitness and well-being, e.g. the negative effects of smoking (bronchitis, lung cancer, obesity.)	Categorising positive & negative impacts on health fitness & well -being. Linking impacts to disease. Written explanation of how lifestyle choices affect health, fitness and well-being.
4		Sedentary lifestyles & consequences	• A sedentary lifestyle and its consequences: overweight; overfat; obese; increased risk to long-term health, e.g. depression, coronary heart disease, high blood	Evaluation of sedentary lifestyle with links to disease/ consequences. Evaluation of own lifestyle – highlighting factors which could be improved. Diary related work.

			pressure, diabetes, increased risk of osteoporosis, loss of muscle tone, posture, impact on components of fitness.	
5		**Reteach weeks/lesson**	• Physical, emotional & social health and well-being – the impact of good/ bad lifestyle style choices and how they impact those factors.	Description of a chosen lifestyle active/ sedentary. Explanation of factors which could have led to this lifestyle. Impact those factors have had. Extensive writing piece.
6		Balanced diet & the role of nutrients	• 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.	Categorisation of food groups & properties. Articles on the importance of a healthy diet. Food diary.
7		Dietary manipulation for sport	• The correct energy balance to maintain a healthy weight. • Hydration for physical activity and sport: why it is important, and how correct levels can be maintained during physical activity and sport.	Development of calorie tracker, through maintenance. Water diary.
8		Optimum Weight	• The factors affecting optimum weight: sex; height; bone structure and muscle girth • The variation in optimum weight according to roles in specific physical activities and sports.	Analysis of profiles highlighting factors which could affect weight. Link to specific athletes.
9	**Autumn T2**	**End of Topic Assessment**	Assessment on all factors learnt during this topic.	Extensive writing

				Multiple choice Describe Analyse Evaluate
10		**Applied Anatomy & Physiology (Paper 1: Fitness & Body Systems)** Functions of the skeletal systems	● Explanation of function applied to physical activity. ● Protection of vital organs, muscle attachment, joints for movement, platelets, red and white blood cell production, storage of calcium and phosphorus.	Explanation of the functions of the skeletal system.
11		Classification of bones	● Long (leverage), short (weight bearing), flat (protection, broad surface for muscle attachment), irregular (protection and muscle attachment) applied.	Identification of classification of bones, and where they can be found.
12		Structure of the skeletal system	● Identification of bones: Cranium, clavicle, scapula, five regions of the vertebral column (cervical, thoracic, lumbar, sacrum, coccyx), ribs, sternum, humerus, radius, ulna, carpals, metacarpals, phalanges (in the hand), pelvis, femur, patella, tibia, fibula, tarsals, metatarsals, phalanges (in the foot). ● Relevance to participation in physical activity and sport. ● Movement possibilities at joints dependent on joint classification: flexion; extension; adduction; abduction; rotation; circumduction; plantar-flexion; dorsiflexion and examples of physical activity and sporting skills, and techniques that utilise these movements in different sporting contexts.	Identification of bones on the skeletal system. Labelling. Explanation of importance of bones & their purposes within specific sports.

13		Classification & roles of muscles Role of ligaments & tendons	● Voluntary muscles of the skeletal system, involuntary muscles in blood vessels, cardiac muscle forming the heart. ● The role of ligaments and tendons, and their relevance to participation in physical activity & sport.	Identification of types of muscles and explanation of their purpose in the body.
14		Location & roles of key voluntary muscles	● Deltoid, biceps, triceps, pectoralis major, latissimus dorsi, external obliques, hip flexors, gluteus maximus, quadriceps, hamstrings, gastrocnemius and tibialis anterior.	Identification of muscles within the body. Labelling.
15		Antagonistic muscles	● Definitions of terms (agonist and antagonist) . ● Gastrocnemius and tibialis anterior acting at the ankle plantar flexion to dorsiflexion; and quadriceps and hamstrings acting at the knee, biceps and triceps acting at the elbow, and hip flexors and gluteus maximus acting at the hip – all flexion to extension.	Identification of muscle pairings. Description of flexion & extension.
16	**Spring T1**	**Reteach weeks/lesson**	Reteach/ Recap of the skeletal & muscular system implementing the links.	Identification of the musculo- skeletal system. Explanation of the musculo-skeletal systems purpose, and how they work.
17		Fast & slow twitch muscles fibres	● type I, type IIa and type IIx.	Identification & composition of different muscle fibres. Description of movements relevant to each of the fibre types. Evaluation of sports fibres could be utilised for.
18		Structure & function of the cardiovascular system	● Transport of oxygen, carbon dioxide and nutrients, clotting of open wounds, regulation of body temperature. ● Atria, ventricles, septum, tricuspid, bicuspid and semi-lunar valves, aorta, vena cava, pulmonary artery, pulmonary	Identification & description of the cardiovascular system, in particular the heart. Description of the heart functions. Ability to draw & label the heart. Evaluation of the importance of blood.

			vein, and their role in maintaining blood circulation during performance in physical activity and sport.	
19		Arteries, capillaries & veins	● 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 blood and changes due to physical exercise.	Identification & description of the bodies vessels and their different roles.
20		Vascular Shunting	● The mechanisms required (vasoconstriction, vasodilation) and the need for redistribution of blood flow (vascular shunting) during physical activities compared to when resting.	Explanation of vascular shunting, and comparisons during rest & activity.
21	**Spring T2**	Components of blood & their significance for physical activity	● Red and white blood cells, platelets and plasma	Identification of the composition of blood, and its roles.
22		**Reteach weeks/lesson**	Reteach/ Recap of muscles fibres & vessels, and their link to the muscular system.	Labelling of the cardiovascular system, vessels & blood. Definition of vascular shunting & links to rest and physical activity.
23		Respiratory System – composition of air; lung volumes	● Composition of inhaled and exhaled air and the difference between the two at rest and when exercising. ● Vital capacity and tidal volume, and reasons that make the change in tidal volume necessary.	Identification & labelling of the respiratory system. Definition of vital capacity, tidal volume and explanations for a reason in change of volume.
24		Location & roles of principal components of respiratory system	● Lungs, bronchi, bronchioles, alveoli, diaphragm.	Identification & labelling of respiratory system.
25		Structure of alveloll system	● Structure of alveoli ● Process of gas exchange ● Impact of varying intensities of exercise (aerobic and anaerobic)	Labelling of the alveoli. Description of gas exchange, how & why it occurs. Explanation of varying intensities.

26		Energy sources; aerobic & anaerobic exercise – short term effects of exercise	• 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). • Muscular: lactate accumulation, muscle fatigue • CV: heart rate, stroke volume and cardiac output • Respiratory: on depth and rate of breathing.	Identification of the different energy sources. Explanation of the process of breaking down fuel for energy. Identification of the short term effects of exercise, and explanation of why & how they occur.
27	**Summer T1**	**End of Topic Assessment**	Assessment on the skeletal & muscular system, fibres, respiratory system.	Extensive writing. Multiple choices. Defining, Explaining.
28		**Movement Analysis (Paper 1: Fitness & Body Systems)** Lever system – first, second & third class levers	• First, second and third class levers	Description of the lever systems. Identification of different movements & the systems that are used.
29		Mechanical advantage in sport & physical activity	• In relation to loads, efforts and range of movement of the body's lever systems and the impact on sporting performance	Identification & explanation of loads, efforts & movement range in relation to sport.
30		Movement possibilities at joints; utilisation of movement in physical activity	• Flexion, extension, adduction, abduction, rotation, circumduction, plantar-flexion, dorsiflexion.	Explanation & description of movement at joints, relation to sporting activity.
31		Joint Classification & impact on movement axes	• Pivot (neck – atlas and axis), hinge (elbow, knee and ankle), ball and socket (hip and shoulder), condyloid (wrist).	Identification of classification of joints, the purposes & locations within the body.

32		Planes & axes – generalised movement patterns	• 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	Identification of different planes & axes, and relation to sporting activity.
33	**Summer T2**	**End of Topic Assessment**	Assessment on Levers, bone classification, joint classification, planes & axes.	Extensive writing Multiple choice Describe Analyse Evaluate
34		**Sports Psychology (Paper 2: Health & Fitness)** Goal Setting – SMART targets	• The use of goal setting to improve and/or optimise performance. • Principles of SMART targets (specific, measureable, achievable, realistic, time-bound). • Setting and reviewing targets to improve and/or optimise performance.	Creation of SMART targets. Target setting.
35		Classification of skills	• Open–closed, basic (simple)–complex, and low organisation–high organisation continua.	Identification of skills and the different categories.
36		Forms of practice – theory & practical application	• 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.	Identification of practice needed within catered situations.
37		Types of guidance – theory & application	• Visual, verbal, manual and mechanical. Advantages and disadvantages of each type of guidance.	Identification of different guidance, Practical application in regards to leadership/coaching.

			• Appropriateness of types of guidance in a variety of sporting contexts when used with performers of different skill levels.	
38		Mental Preparation for Performance – Types of feedback	• Warm up, mental rehearsal. • Intrinsic, extrinsic, concurrent, terminal.	Practice of feedback. Practice of mental preparation.
39		Sports Psychology – Use of data	• Interpretation and analysis of graphical representation of data associated with feedback on performance.	Interpretation of data from graphs, tables and analysis in order to offer feedback.
40		**End of year Mock Exam**	A mock exam on all topics learnt so far this academic year.	

KAT KEY 4 STAGE OVERVIEW (Long Term Planning)

Year 11

Week/ Lesson	Term	Topic	Knowledge	Skills **Reading and writing tasks:**
1	**Autumn T1**	**Health, Fitness & Well-Being (Paper 2: Health & Performance)** An introduction to using a PEP to develop fitness, health, exercise & performance	• Definitions of fitness, health, exercise and performance and the relationship between them. • Links between this topic and the PEP.	Definition of fitness, health, and exercise. Overview & understanding of the PEP.
2		PARQ's; Warm ups & cool downs	• The use of a PARQ to assess personal readiness for training and recommendations for amendment to training based on PARQ. • The purpose and importance of warm ups and cool downs to effective training sessions and physical activity and sport	Development of a PARQ. Practice of running a warm up & the importance. Practice of a cool down & its importance.

			• Phases of a warm up and their significance in preparation for physical activity and sport. • Activities included in warm ups and cool downs.	
3		Components of fitness	• Cardiovascular fitness (aerobic endurance), strength, muscular endurance, flexibility, body composition, agility, balance, coordination, power, reaction time, and speed.	Identification of components of fitness.
4		Fitness tests – Practical	• Practical: the test protocol. • Fitness testing: cardiovascular fitness – Cooper 12 minute tests (run), 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.	Practice and organisation of fitness tests, and their relevance.
5		Fitness tests – theory	• Theory: the value of fitness testing; the purpose of specific fitness tests; the selection of the appropriate fitness test for components of fitness; and the rationale for selection. • Collection and interpretation of data from fitness test results. • Theory: analysis and evaluation of fitness test results against normative data tables.	Identification of the purpose of fitness testing. Collection & interpretation of results. Analysis & evaluation for programming purposes.
6		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).	Identification of principles of training. Understanding and reading of training zones.

7		Application of principles of training to a PEP	• Discussion of personal goals for PEP and how to achieve these through application of principles.	Identification of goals for PEP, written understanding of how to achieve them through programming.
8		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.	Identification of methods of training. Establishment of training method required for PEP.
9	**Autumn T2**	Application of methods of training to a PEP **(Interventions to begin here)**	• 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).	Planning of training for PEP.
10		Long term effects of training on the musculo-skeletal system	• Review musculo-skeletal system. • Benefits to the musculo-skeletal system: increased bone density; increased strength of ligaments and 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.	Identification of musculoskeletal system. Identification of benefits of musculoskeletal system. Impact of musculoskeletal composition on different sports & evaluation of why.
11		Long term effect of training on the cardio-respiratory system	• Review cardio-respiratory system. • 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 capilliarisation; increase in number of red blood cells; drop in resting blood pressure due to more	Identification of cardio-respiratory system. Identification of the benefits of the cardio-respiratory system. Impact of cardio-respiratory system composition on sports & evaluation of why.

			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. ● Impact on performance in different types of activities.	
12		Identification & treatment of injury	● Concussion, fractures, dislocation, sprain, torn cartilage and soft tissue injury (strain, tennis elbow, golfers elbow, abrasions). ● RICE (rest, ice, compression, elevation).	Identification of injuries and evaluation of treatments to help healing process.
13		Injury prevention in physical activity	● 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.	Identification of how to prevent injuries.
14		Performance enhancing drugs (1)	● Performance-enhancing drugs (PEDs) and their positive and negative effects on sporting performance and performer lifestyle, including: anabolic steroids; beta blockers.	Identification of performance enhancing drugs & their impact on athletes.
15		Performance enhancing drugs (2)	● Diuretics; narcotic analgesics; peptide hormones (erythropoietin (EPO); growth hormones (GH)); stimulants; blood doping.	Identification of performance enhancing drugs & their impact on athletes.
16	**Spring T1**	**End of topic assessment**	Assessment on Long term effects of training, injury identification & treatment and performance enhancing drugs.	Extensive writing Multiple choice Describe Analyse

				Evaluate
17		**Socio-cultural Influences (Paper 2: Health & Performance)** Factors affecting participation in physical activity	• Gender, age, socio-economic group, ethnicity & disability. • Interpretation and analysis of graphical representation of data associated with trends in participation rates.	Identification of the barriers within sport & demographics. Interpretation of data & trends.
18		Factors affecting participation in physical activity (2)	• 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.	Identification of barriers within sport & their relation to media & commercialisation. Pros & Cons of commercialisation & the consequences.
19		Sporting Behaviours	• Sportsmanship, gamesmanship, and the reasons for, and consequences of, deviance at elite level.	Evaluation of sporting behaviours, and role models.
20		Deviance in Sport	• Review performance-enhancing drugs. Consider other types of deviancy in sport.	Evaluation of deviance in sport, and consequences.
21	**Spring T2**	**Reteach/ Review Paper 1**	• Body Systems • Movement Analysis	Revision, Recall.
22		**Reteach/ Review Paper 2**	• Physical Training	Revision, Recall.
23		**Mock Exam Paper 1**	• Take mock exam	Answering technique, Recall.
24		**Mock Exam paper 2**	• Take mock exam	Answering technique, Recall.
25		**Exam Analysis Mop up**	• Focus on areas of weakness identified from the mock	Revision, Recall.
26		**Exam Analysis Mop up**	• Focus on areas of weakness identified from the mock	Revision, Recall.
27	**Summer T1**	**Exam Analysis Mop up**	• Focus on areas of weakness identified from the mock	Revision, Recall.

28		Revision & exam technique	• Revision & answering techniques.	Revision, Recall.
29		Revision & exam technique	• Revision & answering techniques.	Revision, Recall.
30		Revision & exam technique	• Revision & answering techniques.	Revision, Recall.
31		Extensive answers practice	• Practice of AO3 questions.	Revision, Recall, and extensive writing.
32		Extensive answer practice	• Practice of AO3 questions.	Revision, Recall, and extensive writing.
33	**Summer T2**	Potential Study Leave		
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