Long term plan

Subject: PE (12 and 13)

	Year 12 (SB)	Year 12 (MG)	Year 13 (SB)	Year 13 (MG)
LC1	"Health (heart disease, high blood pressure, effects of cholesterol, stroke). Fitness (cardiac output – trained and untrained individuals, maximal and sub-maximal exercise)" Sympathetic and parasympathetic control of heart rate; Anticipatory rise; Role of carbon dioxide; Chemoreceptors, proprioceptors, baroreceptors "Cardiac conduction system. Starling's law of the heart. Cardiovascular drift." Haemoglobin; Myoglobin; Oxyhaemoglobin disassociation curve and Bohr shift. Arterio-venous oxygen difference (A-VO2 diff). Redistribution of blood (vascular shunting vasoconstriction, vasodilation) "Venous return mechanisms Relationship with blood pressure (systolic, diastolic)"	Characteristics of skill continua Transfer of learning Understanding how transfer of learning impacts on skill development Methods of presenting practice – Whole; Progressive part; Whole–part–whole. Types of practice - Massed. Distributed. Variable. Mental practice. Understanding how knowledge of skill classification informs practice structure (presentation and type) to allow learning/ development of skills Stages of learning and how feedback differs between the different stages of learning	"Energy transfer in the body. Energy transfer during long duration/lower intensity exercise. Aerobic energy system (glycolysis, Krebs/citric acid cycle, beta oxidation, electron transport chain)." "Anaerobic energy systems (anaerobic glycolytic system). Short term lactate anaerobic system (lactate accumulation)." "Short term lactate anaerobic system – Lactate threshold, OBLA, Lactate producing capacity and sprint/power performance" "Energy transfer during short duration/high intensity exercise. Anaerobic energy systems - ATP-PC system." "Energy continuum of physical activity Consideration for physical activity and sport of different intensities and durations. Differences in ATP generation between fast and slow twitch muscle fibre. " Oxygen consumption during exercise (maximal and submaximal oxygen deficit). Oxygen consumption during recovery (excess post-exercise oxygen consumption EPOC)	"Information processing: Input - Senses. Receptors. Proprioception. Perception. Selective attention. Decision-making. Output. Feedback." "Baddeley and Hitch, working memory model memory system. Functions and characteristics of components of working memory model." "Application of Whiting's information processing model to a range of sporting contexts. Applied understanding of information processing terms within a sporting context. Environment Display Sensory organs Perceptual mechanism Translatory mechanism Effector mechanism Muscular system Output data Feedback data. ""Strategies to improve information processing. Input – selective attention Decision making process – chunking, chaining, response time, schema.""" "Definitions of and the relationship between reaction time, response time, movement time. Simple reaction time. Choice reaction time. Factors affecting response time.

				Hick's law Psychological refractory period Single channel hypothesis." "Definitions of anticipation. Temporal. Spatial. Strategies to improve response time." "Schmidt's schema theory. Recall. Recognition. Initial conditions. Response specifications. Sensory consequences. Response outcomes. Parameters. Application of schema theory in sporting situations."
LC2	Lung volumes Gas exchange and principles of diffusion "Regulation of breathing rate adrenaline; Sympathetic and parasympathetic systems; Carbon dioxide; Chemoreceptors, proprioceptors and baroreceptors Impact of smoking; oxygen transport" Muscle fibre types Proprioceptors (muscle spindles; Golgi tendon organ) and PNF Motor units and spatial and wave summation	Aspects of personality – trait, social learning and interactionist Attitudes – triadic model; changing attitudes Arousal – drive, inverted U theories Arousal – catastrophe and ZOF theories Anxiety - Somatic, cognitive, competitive trait and competitive state Advantages and disadvantages of using observations, questionnaires and physiological measures to measure anxiety. Aggression and assertion; Instinct theory, frustration aggression hypothesis Aggression and assertion; social learning theory and aggressive cue theory Strategies to control aggression	"Impact of specialist training methods on energy systems. Altitude training High Intensity Interval Training (HIIT). Impact of specialist training methods on energy systems. Plyometrics Speed Agility Quickness." "Types of injury. Acute - fractures, dislocations, strains, sprains" "Types of injury. Chronic - achilles tendonitis, stress fracture, 'tennis elbow'" "Understanding different methods used in injury prevention, rehabilitation and recovery. Injury prevention methods: Screening. Protective equipment. Warm up, Flexibility training (active, passive, static and ballistic) Taping and bracing." "Injury rehabilitation methods – Proprioceptive training, Strength training,	"Atkinson's Model of achievement motivation. Characteristics of personality components of achievement motivation. Need to achieve (Nach) and Need to avoid failure (Naf). Impact of situational component of achievement motivation. Incentive value and probability of success. Impact of situational component of achievement motivation. Incentive value and probability of success." "Achievement goal theory. Impact of outcome orientated goals and task-orientated goals. Strategies to develop approach behaviours leading to improvements in performance. Attribution process. Weiner's Model and its application to sporting situations. Link between attribution, task persistence and motivation. Self-serving bias. Attribution retraining." "Learned helplessness - General and specific

			Hyperbaric chambers, Cryotherapy, Hydrotherapy." "Recovery from exercise – Compression garments, Massage/foam rollers, Cold therapy, ice bath, cryotherapy. Physiological reasons for methods used in injury rehabilitation. Hyperbaric chambers Cryotherapy."	Strategies to avoid learned helplessness leading to improvements in performance. Characteristics of self-efficacy, self-confidence and self-esteem. Bandura's Model of self-efficacy. Performance accomplishments, Vicarious experiences, Verbal persuasion Emotional arousal." "Characteristics of self-efficacy, self-confidence and self-esteem. Bandura's Model of self-efficacy. Performance accomplishments, Vicarious experiences, Verbal persuasion Emotional arousal." "Characteristics of self-efficacy, self-confidence and self-esteem. Bandura's Model of self-efficacy. Performance accomplishments, Vicarious experiences, Verbal persuasion Emotional arousal. Vealey's Model of self-confidence. Relationship between trait sport confidence, competitive orientation, the sport situation and state sport confidence. Effects of home field advantage. Strategies to develop high levels of self-efficacy leading to improvements in performance." "Characteristics of effective leaders. Styles of leadership. Autocratic, democratic, laissez-faire. Evaluation of leadership styles for different sporting situations. Prescribed and emergent leaders. ""Theories of leadership in different sporting situations. Fiedler's contingency theory and Chelladurai's multi-dimensional model. Vector components of parabolic flight.""

				""Explanation of cognitive techniques. Psychological skills training (PST). Mental rehearsal. Visualisation. Imagery. Attentional control and cue utilisation. Thought stopping. Positive self-talk."" ""Explanation of somatic techniques. Biofeedback, centering, breathing control, progressive muscle relaxation.""""
LC3	Joints and bones; agonists and types of contraction Analysis of shoulder, elbow movements Analysis of hip, knee and ankle movements Understand the exercise-related function of food classes. Carbohydrate. Fibre. Fat (saturated fat, trans fat and cholesterol), protein Understand the exercise-related function of food classes. vitamins (C, D, B-12, B-complex), minerals (sodium, iron, calcium), water (hydration before, during and after physical activity) Positive and negative effects of Creatine, sodium bicarbonate, caffeine, glycogen loading	Motivation - Intrinsic, extrinsic, tangible and intangible Social facilitation and inhibition; Zajonc's model Evaluation apprehension; Strategies to eliminate the adverse effects of social facilitation and social inhibition "Group formation – Tuckman Cohesion – task and social" Steiner's model of potential and actual productivity, faulty group processed. Including cooperation and coordination Ringelmann effect and social loafing. Strategies to improve cohesion, group productivity and overcome social loafing to enhance team performance SMARTER (specific, measurable, achievable, realistic, time bound, evaluate, re-do) Outcome goals, task orientated. Performance related goals, process goals	"Linear motion An understanding of the forces acting on a performer during linear motion. Gravity, Frictional force, Air resistance, Internal-muscular force, Weight." "Definitions, equations and units of vectors and scalars. Mass, Weight, Speed, Velocity" "Definitions, equations and units of vectors and scalars. Distance, Displacement, Acceleration Momentum. The relationship between impulse and increasing and decreasing momentum in sprinting through the interpretation of force/time graphs." "Application of Newton's laws to angular motion. Definitions and units for angular motion. Angular displacement, Angular velocity, Angular acceleration." Conservation of angular momentum during flight, moment of inertia and its relationship with angular velocity. "Factors affecting horizontal displacement of projectiles.	"The characteristics and functions of key concepts and how they create the base of the sporting development continuum. Physical recreation. Sport. Physical education. School sport. The similarities and the differences between the key concepts of Physical recreation, Sport, Physical education, School sport." The personal, social and cultural factors required to support progression from talent identification to elite performance. "The generic roles, purpose and the relationship between organisations in providing support and progression from talent identification through to elite performance - The key features of National Governing Bodies' Whole Sport Plans. The key features of UK Sport's World Class Performance Programme, Gold Event Series and Talent Identification and Development. Or equivalent current named programmes." "Amateurism, the Olympic Oath, Sportsmanship, gamesmanship, win ethic. Positive and negative forms of deviance in relation to the performer.

			Factors affecting flight paths of different projectiles. Shot put, badminton shuttle."	The causes and implications of violence in sport in relation to the performer, spectator and sport." Strategies for preventing violence within sport to the performer and spectator. The social and psychological reasons behind elite performers using illegal drugs and doping methods to aid performance. "The physiological effects of drugs on the performer and their performance. Physiological adaptations - Erythropoietin (EPO) Anabolic steroids Beta blockers."
LC4	Data collection - Quantitative and qualitative. Objective and subjective. Validity and reliability Physiological effects and benefits of a warm-up and cool down Stretching for different types of physical activity (static and ballistic) Principles of training - Specificity, progressive overload, reversibility, recovery Principles of training - Frequency Intensity Time Type of Training (FITT) principle Periodisation - Macro cycle, Meso cycle, Micro cycle. Preparation, competition, transition. Tapering, peaking	Pre-industrial sport – characteristics and impact - rural, local, two-tier class system. Limited to mob football, real tennis and Much Wenlock Olympic Games Popular and rational recreation linked to two-class system Industrial and post industrial sport - Industrial Revolution; Urbanisation Transport and communication; The British Empire Provision through factories; Churches and local authorities	"Fluid mechanics Dynamic fluid force. Drag and lift." "Factors that reduce and increase drag and their application to sporting situations. The Bernoulli principle applied to sporting situations. Upward lift force (discus). Downward lift force (speed skiers, cyclists, racing cars)." Exam preperation and revision Exam preperation and revision Exam preperation and revision Exam preperation and revision	"Social and psychological rewards (for the sport and the performer). ""The positive and negative implications to the sport and the performer of drug taking. Negative impact on current and future health. Social and psychological repercussions (for the sport and the performer)."" Strategies for elimination of performance enhancing drugs in sport. Arguments for and against drug taking and testing. Testing procedures will not be examined." "The uses of sports legislation. Performers (contracts, injury, loss of earnings). Officials (negligence). Coaches (duty of care). Spectators (safety, hooliganism)." "The uses of sports legislation. Performers (contracts, injury, loss of earnings). Officials (negligence). Coaches (duty of care). Spectators (safety, hooliganism)." The positive and negative impact of commercialisation, sponsorship and the

				media on the performer/coach/official/audience/sport. "Functions of sports analytics. Monitor fitness for performance. Skill and technique development.""Functions of sports analytics. Injury prevention (vibration, electro stimulation)."""""Functions of sports analytics. Game analysis. Talent ID/scouting.""" "The development of equipment and facilities in physical activity and sport, and their impact on participation and performance.The development of equipment and facilities in physical activity and sport, and their impact on participation and performance. Impact of material technology on equipment – adapted (disability, age). ""Impact of material technology on Facilities – Olympic legacy, (surfaces, multi- use)."" ""The role of technology in sport and its positive and negative impacts on the Sport. Performer."" ""The role of technology in sport and its positive and negative impacts on the Coach. Audience."""
LC5	Training methods - Interval training (anaerobic power). Continuous training (aerobic endurance). Fartlek (aerobic endurance) Training methods - Circuit training (muscular endurance). Weight training (strength). Proprioceptive Neuromuscular Facilitation (PNF) (flexibility) Newton's Three Laws of linear motion	Golden triangle – the interrelationship between commercialisation (including sponsorship), media (radio, TV, satellite, internet and social media) and sports and governing bodies. Golden triangle – the interrelationship between commercialisation (including sponsorship), media (radio, TV, satellite, internet and social media) and sports and governing bodies		

	Definitions, equations and units of example scalars – speed and distance Centre of mass and factors affecting stability Three classes of levers. Mechanical advantage and mechanical disadvantage of each class of lever	The changing status of amateur and professional performers Factors affecting the emergence of elite female performers in football (players and officials), in the late 20th and early 21st century Factors affecting the emergence of elite female performers in tennis in the late 20th and early 21st century Factors affecting the emergence of elite female performers in athletics in the late 20th and early 21st century		