**AQA 2020 Year 13 Specification Scheme of Work – three teachers – 1½ - 1¾ hour lessons**

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| **Week** | **Physiology** | **Psychology** | **Socio-cultural** |
| 1 | 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).  | Information processing:Input - Senses. Receptors. Proprioception. Perception. Selective attention. Decision-making. Output. Feedback.  | 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.  |
| 2 | Anaerobic energy systems (anaerobic glycolytic system). Short term lactate anaerobic system (lactate accumulation).  | Baddeley and Hitch, working memory model memory system. Functions and characteristics of components of working memory model.  | The similarities and the differences between the key concepts of Physical recreation, Sport, Physical education, School sport.  |
| 3 | Short term lactate anaerobic system – Lactate threshold, OBLA,Lactate producing capacity and sprint/power performance | Application of Whiting’s information processing model to a range of sporting contexts. Applied understanding of information processing terms within a sporting context. EnvironmentDisplaySensory organsPerceptual mechanismTranslatory mechanismEffector mechanismMuscular system Output dataFeedback data.  | The personal, social and cultural factors required to support progression from talent identification to elite performance.  |
| 4 | Energy transfer during short duration/high intensity exercise. Anaerobic energy systems - ATP-PC system.  | Definitions of and the relationship between reaction time, response time, movement time. Simple reaction time. Choice reaction time.  | 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.  |
| 5 | Energy continuum of physical activityConsideration for physical activity and sport of different intensities and durations.  | Factors affecting response time. Hick’s lawPsychological refractory periodSingle channel hypothesis.  | The generic roles, purpose and the relationship between organisations in providing support and progression from talent identification through to elite performance - National Institutes of SportThe support services provided by National Institutes of Sports for talent development.  |
| 6 | Differences in ATP generation between fast and slow twitch muscle fibre.  | Definitions of anticipation. Temporal. Spatial.  | The key features of UK Sport’s World Class Performance Programme, Gold Event Series and Talent Identification and Development. Or equivalent current named programmes.  |
| 7 | Oxygen consumption during exercise (maximal and submaximal oxygen deficit).  | Strategies to improve response time.  | Amateurism, the Olympic Oath, |
| 8 | Oxygen consumption during recovery (excess post-exercise oxygen consumption EPOC).  | Schmidt’s schema theory. Recall. Recognition. Initial conditions. Response specifications. Sensory consequences. Response outcomes. Parameters.  | Sportsmanship, gamesmanship, win ethic.  |
| 9 | Factors affecting VO2 max/aerobic power.  | Application of schema theory in sporting situations.  | Positive and negative forms of deviance in relation to the performer. The causes and implications of violence in sport in relation to the performer, spectator and sport.  |
| 10 | Measurements of energy expenditure. Indirect calorimetryLactate samplingVO2 max testRespiratory exchange ratio (RER).  | Strategies to improve information processing. Input – selective attention Decision making process – chunking, chaining, response time, schema.  | Strategies for preventing violence within sport to the performer and spectator.  |
| 11 | Impact of specialist training methods on energy systems. Altitude trainingHigh Intensity Interval Training (HIIT).  | Atkinson’s Model of achievement motivation.  | The social and psychological reasons behind elite performers using illegal drugs and doping methods to aid performance.  |
| 12 | Impact of specialist training methods on energy systems. PlyometricsSpeed Agility Quickness.  | Characteristics of personality components of achievement motivation. Need to achieve (Nach) and Need to avoid failure (Naf).  | The physiological effects of drugs on the performer and their performance. Physiological adaptations - Erythropoietin (EPO)Anabolic steroidsBeta blockers.  |
| 13 | Types of injury. Acute - fractures, dislocations, strains, sprains | Impact of situational component of achievement motivation. Incentive value and probability of success.  | Social and psychological rewards (for the sport and the performer).  |
| 14 | Types of injury. Chronic - achilles tendonitis, stress fracture, ‘tennis elbow’ | Achievement goal theory. Impact of outcome orientated goals and task-orientated goals.  | 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).  |
| 15 | 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.  | Strategies to develop approach behaviours leading to improvements in performance.  | Strategies for elimination of performance enhancing drugs in sport.  |
| 16 | Injury rehabilitation methods – Proprioceptive training, Strength training, Hyperbaric chambers, Cryotheraphy, Hydrotherapy.  | Attribution process. Weiner’s Model and its application to sporting situations.  | Arguments for and against drug taking and testing. Testing procedures will not be examined.  |
| 17 | Recovery from exercise – Compression garments, Massage/foam rollers, Cold therapy, ice bath, cryotheraphy.  | Link between attribution, task persistence and motivation. Self-serving bias.  | The uses of sports legislation. Performers (contracts, injury, loss of earnings). Officials (negligence).Coaches (duty of care). Spectators (safety, hooliganism).  |
|  | Physiological reasons for methods used in injury rehabilitation. Hyperbaric chambersCryotheraphy.  | Attribution retraining.  | The positive and negative impact of commercialisation, sponsorship and the media on the performer.  |
| 18 | Importance of sleep and nutrition for improved recovery.  | Learned helplessness - General and specificStrategies to avoid learned helplessness leading to improvements in performance.  | The positive and negative impact of commercialisation, sponsorship and the media on the coach.  |
| 19 | Linear motionAn understanding of the forces acting on a performer during linear motion. Gravity, Frictional force, Air resistance, Internal-muscular force, Weight.  | Characteristics of self-efficacy, self-confidence and self-esteem.  | The positive and negative impact of commercialisation, sponsorship and the media on the official. |
| 20 | Definitions, equations and units of vectors and scalars. Mass, Weight, Speed, Velocity | Bandura’s Model of self-efficacy. Performance accomplishments, Vicarious experiences, Verbal persuasion Emotional arousal.  | The positive and negative impact of commercialisation, sponsorship and the media on the audience. |
| 21 | Definitions, equations and units of vectors and scalars. Distance, Displacement, Acceleration Momentum.  | Vealey’s Model of self-confidence. Relationship between trait sport confidence, competitive orientation, the sport situation and state sport confidence.  | The positive and negative impact of commercialisation, sponsorship and the media on the sport.  |
| 22 | The relationship between impulse and increasing and decreasing momentum in sprinting through the interpretation of force/time graphs.  | Effects of home field advantage.  | Functions of sports analytics. Monitor fitness for performance. Skill and technique development.  |
| 23 | Application of Newton’s laws to angular motion. Definitions and units for angular motion. Angular displacement, Angular velocity, Angular acceleration.  | Strategies to develop high levels of self-efficacy leading to improvements in performance.  | Functions of sports analytics. Injury prevention (vibration, electro stimulation).  |
| 24 | Conservation of angular momentum during flight, moment of inertia and its relationship with angular velocity.  | Characteristics of effective leaders. Styles of leadership. Autocratic, democratic, laissez-faire.  | Functions of sports analytics. Game analysis. Talent ID/scouting.  |
| 25 | Factors affecting horizontal displacement of projectiles. Factors affecting flight paths of different projectiles. Shot put, badminton shuttle. | Evaluation of leadership styles for different sporting situations. Prescribed and emergent leaders.  | The development of equipment and facilities in physical activity and sport, and their impact on participation and performance.  |
| 26 |   | Theories of leadership in different sporting situations. Fiedler’s contingency theory and Chelladurai’s multi-dimensional model. Vector components of parabolic flight.  | Impact of material technology on equipment – adapted (disability, age).  |
| 27 | Fluid mechanicsDynamic fluid force. Drag and lift.  | Explanation of the terms ‘stress’ and ‘stressor’. Use of warm up for stress management. Effects of cognitive and somatic techniques on the performer.  | Impact of material technology on Facilities – Olympic legacy, (surfaces, multi- use).  |
| 28 | 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).  | Explanation of cognitive techniques. Psychological skills training (PST). Mental rehearsal. Visualisation. Imagery. Attentional control and cue utilisation. Thought stopping. Positive self-talk.  | The role of technology in sport and its positive and negative impacts on theSport. Performer.  |
| 29 |  | Explanation of somatic techniques. Biofeedback, centering, breathing control, progressive muscle relaxation.  | The role of technology in sport and its positive and negative impacts on theCoach. Audience.  |
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