

**A-Level Overview Year 1: Physical Education**

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| **Week** | **Physiology – Gavin Hawkins** | **Psychology – Matthew Walker** | **Socio-cultural – Patrick Macdonald** | **Key Skills / Coursework / PSAs / Deadlines** |
| 1 | Health (heart disease, high blood pressure, effects of cholesterol, stroke).  Fitness (cardiac output – trained and untrained individuals, maximal and sub- maximal exercise) | Characteristics of skill | Pre-industrial sport – characteristics and impact - rural, local, two-tier class system. | **Deadline –** End of March  To acquire all audio-visual recorded evidence for every student performing in his or her chosen sporting activity. (Worth 15% of final grade). |
| 2 | Sympathetic and parasympathetic control of heart rate; Anticipatory rise; Role of carbon dioxide; Chemoreceptors, proprioceptors, baroreceptors | Skill continua | Limited to mob football, real tennis and Much Wenlock Olympic Games | **Deadline –** End of March  To have received and marked all ‘Analysis and Evaluation of Performance’. (Worth 15% of final grade). |
| 3 | Cardiac conduction system | Transfer of learning | Popular and rational recreation linked to two-class system | **Key Skills –** To have clear understanding of the ‘Command Words’: Analyse, Apply, Assess, Calculate, Comment, Compare, |
| 4 | Starling’s law of the heart.  Cardiovascular drift. | Understanding how transfer of learning impacts on skill development | Industrial and post industrial sport - Industrial Revolution; Urbanisation | Complete, Consider, Contrast, Define, Describe, Discuss, Evaluate, Explain, Give, Identify, Interpret, |
| 5 | Arterio-venous oxygen difference (A-VO2 diff). | Methods of presenting practice – Whole; Progressive part; Whole–part–whole. | Transport and communication; The British Empire | Justify, Label, Name, Outline, Plot, State, Sketch, Suggest. |
| 6 | Redistribution of blood (vascular shunting vasoconstriction, vasodilation) | Types of practice - Massed. Distributed. Variable. Mental practice. | Provision through factories; Churches and local authorities | **Key Skills –** To be confident in understanding, interpreting and analyzing different types of data and graphs. |
| 7 | Haemoglobin; Myoglobin; Oxyhaemoglobin disassociation curve and Bohr shift. | Understanding how knowledge of skill classification informs practice structure (presentation and type) to allow learning/ development of skills | Three-tier class system (emphasis on middle class and working class); Development of national governing bodies. |  |
| 8 | Venous return mechanisms  Relationship with blood pressure (systolic, diastolic) | Stages of learning and how feedback differs between the different stages of learning | Characteristics of sport |  |
| 9 | Lung volumes | Learning plateaus – causes and solutions | Consideration of the changing role of women in sport |  |
| 10 | Gas exchange and principles of diffusion | Cognitive theories – insight learning | The status of amateur and professional performers |  |

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| 11 | Regulation of breathing rate adrenaline; Sympathetic and parasympathetic systems; Carbon dioxide; Chemoreceptors, proprioceptors and baroreceptors  Impact of smoking; oxygen transport | Behaviourism – operant conditioning | Golden triangle – the interrelationship between commercialization (including sponsorship), media (radio, TV, satellite, internet and social media) and sports and governing bodies. |  |
| 12 | Muscle fibre types | Social learning – observational learning | Golden triangle – the interrelationship between commercialization (including sponsorship), media (radio, TV, satellite, internet and social media) and sports and governing bodies |  |
| 13 | Proprioceptors (muscle spindles; Golgi tendon organ) and PNF | Constructivism - Vygotsky | The changing status of amateur and professional performers |  |
| 14 | Motor units and spatial and wave summation | Understanding of how theories of learning impact on skill development. | Factors affecting the emergence of elite female performers in football (players and officials), in the late 20th and early 21st century |  |

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| 15 | Joints and bones; agonists and types of contraction | Methods of guidance | Factors affecting the emergence of elite female performers in tennis in the late 20th and early 21st century |  |
| 16 | Analysis of shoulder, elbow movements | Types of feedback | Factors affecting the emergence of elite female performers in athletics in the late 20th and early 21st century |  |
| 17 | Analysis of hip, knee and ankle movements | Understanding of how feedback and guidance impacts on skill development. | Definitions –   * society * socialization – primary and secondary |  |
|  | Understand the exercise-related function of food classes. Carbohydrate. Fibre. Fat (saturated fat, trans fat and cholesterol), protein | Aspects of personality – trait, social learning and interactionist | Definitions –   * social processes * social issues * social structures/stratification |  |
| 18 | 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) | Attitudes – triadic model; changing attitudes | Social control and social change. Causes and consequences of inequality. e.g. schools / sports clubs |  |

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| 19 | Positive and negative effects of Creatine, sodium bicarbonate, caffeine, glycogen loading | Arousal – drive, inverted U theories | Social action theory - Interactionist approach, impact of sport on society and of society on sport |  |
| 20 | Data collection - Quantitative and qualitative. Objective and subjective. Validity and reliability | Arousal – catastrophe and ZOF theories | Understanding the terms equal opportunities, discrimination, stereotyping and prejudice. |  |
| 21 | Physiological effects and benefits of a warm-up and cool down | Anxiety - Somatic, cognitive, competitive trait and competitive state | Barriers to participation of under-represented groups - Disability |  |
| 22 | Stretching for different types of physical activity (static and ballistic) | Advantages and disadvantages of using observations, questionnaires and physiological measures to measure anxiety. | Barriers to participation of under-represented groups - Ethnic group |  |
| 23 | Principles of training - Specificity, progressive overload, reversibility, recovery | Aggression and assertion; Instinct theory, frustration aggression hypothesis | Barriers to participation of under-represented groups - Gender |  |
| 24 | Principles of training - Frequency Intensity Time Type of Training (FITT) principle | Aggression and assertion; social learning theory and aggressive cue theory | Barriers to participation of under-represented groups – Disadvantaged |  |

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| 25 | Periodisation - Macro cycle, Meso cycle, Micro cycle. Preparation, competition, transition. Tapering, peaking | Strategies to control aggression | Health, fitness and social benefits of raising participation |  |
| 26 | Training methods - Interval training (anaerobic power). Continuous training (aerobic endurance). Fartlek (aerobic endurance) | Motivation - Intrinsic, extrinsic, tangible and intangible | The interrelationship between Sport England, local and national partners to increase participation at grass roots level and underrepresented groups in sport. |  |
| 27 | Training methods - Circuit training (muscular endurance). Weight training (strength). Proprioceptive Neuromuscular Facilitation (PNF) (flexibility) | Social facilitation and inhibition; Zajonc’s model | Understanding of technology for sports analytics Use of technology in data collection (quantitative and qualitative, objective and subjective, validity and reliability of data) |  |
| 28 | Newton’s Three Laws of linear motion | Evaluation apprehension; Strategies to eliminate the adverse effects of social facilitation and social inhibition | Video and analysis programmes |  |

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| 29 | Definitions, equations and units of example scalars – speed and distance | Group formation – Tuckman  Cohesion – task and social | Testing and recording equipment (metabolic cart for indirect calorimetry) |  |
| 30 | Centre of mass and factors affecting stability | Steiner’s model of potential and actual productivity, faulty group processed. Including cooperation and coordination | Use of GPS and motion tracking software and hardware |  |
| 31 | Three classes of levers | Ringelmann effect and social loafing. Strategies to improve cohesion, group productivity and overcome social loafing to enhance team performance | Maintaining data integrity |  |
| 32 | Mechanical advantage and mechanical disadvantage of each class of lever | SMARTER (specific, measurable, achievable, realistic, time bound, evaluate, re-do) |  |  |
| 33 |  | Outcome goals, task orientated. Performance related goals, process goals |  |  |
| 34 | NEA | NEA | NEA |  |
| 35 | NEA | NEA | NEA |  |
| 36 | NEA | NEA | NEA |  |
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**A-Level Overview Year 2: Physical Education**

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| Term | Mr. Hawkins | Mr. Macdonald | Mr Walker | Key Skills / Coursework / PSAs / Deadlines |
| 1 | **3.1.1.2 Cardiovascular system**   * Understanding of the impact of physical activity and sport on the health and fitness of the individual. * The hormonal, neural and chemical regulation of responses during physical activity and sport. * Receptors involved in regulation of responses during physical activity. * Transportation of oxygen. * Venous return. * Starling’s law of the heart. * Cardiovascular drift. * Arterio-venous oxygen difference (A-VO diff). | **3.1.3.1 Emergence of globisation of sport in the 21st century**   * The characteristics and impact on sporting recreation * Characteristics of popular and rational recreation linked to the two-tier class system.   **3.1.3.2 Industrial and post-industrial (1780-1900)**   * Characteristics and impact on sport (limited to development of association football, lawn tennis, rationalisation of track and field events and the role of the Wenlock Olympian Games). | **3.1.2.1 Skill, skill continuums and transfer of skills**   * Characteristics of skill. * Use of skill continua. * Justification of skill placement on each of the continua. * Transfer of learning. * Understanding of how transfer of learning impacts on skill development.   **3.1.2.2 Impact of skill classification on structure of practice for learning**   * Methods of presenting practice. * Types of practice. * Understanding how knowledge of skill classification informs practice structure (presentation and type) to allow learning/ development of skills. | Read textbooks AQA PE For A-level Years 1 & 2  Class notes  End of topic tests  Need to continue to gain video footage of **full competitive play**, and provide written commentary  Visit to Bath University TBC. |
| 2 | **3.1.1.3 Respiratory system**   * Understanding of lung volumes and the impact of and on physical activity and sport. * Gas exchange systems at alveoli and muscles. * The hormonal, neural and chemical regulation of pulmonary ventilation during physical activity and sport. * Receptors involved in regulation of pulmonary ventilation during physical activity. * Impact of poor lifestyle choices on the respiratory system. | **3.1.3.3 Post World War II (1950 to present)**   * Characteristics and impact on sport (limited to development of association football, tennis and athletics). | **3.1.2.3 Principles and theories of learning and performance**   * Stages of learning and how feedback differs between the different stages of learning. * Learning plateau. * Cognitive theories. * Behaviourism. * Social learning. * Constructivism. * Understanding of how theories of learning impact on skill development.   **3.1.2.4 Use of guidance and feedback**   * Methods of guidance. * Understand the different purposes and types of feedback. * Understanding of how feedback and guidance impacts on skill development. | Read textbooks AQA PE For A-level Years 1 & 2  Class notes  End of topic tests  Need to continue to gain video footage of **full competitive play**, and provide written commentary |
| 3 | **3.1.1.4 Neuromuscular system**   * Characteristics and functions of different muscle fibre types for a variety of sporting activities. * Nervous system. * Role of proprioceptors in PNF. * The recruitment of muscle fibres.   **3.1.1.5 The musculo-skeletal system and analysis of movement in physical activities**   * Joint actions in the sagittal plane/transverse axis. * Joint actions in the frontal plane/sagittal axis. * Joint actions in the transverse plane/longitudinal axis. * Types of joint, articulating bones, main agonists and antagonists, types of muscle contraction.   **3.2.2.2 Levers**   * Three classes of lever and examples of their use in the body during physical activity and sport. * Mechanical advantage and mechanical disadvantage of each class of lever. | **3.2.4.1 Concepts of physical activity and sport**   * The characteristics and functions of key concepts and how they create the base of the sporting development continuum * The similarities and the differences between these key concepts. | **3.1.2.5.1 General information processing model**   * Input. * Decision making. * Output. * Feedback.   **3.1.2.5.2 Efficiency of information processing**   * Application of Whiting’s information processing model to a range of sporting contexts. * Applied understanding of information processing terms within a sporting context. * Definitions of and the relationship between reaction time, response time, movement time. * Factors affecting response time. * Definitions of anticipation. * Strategies to improve response time. * Schmidt’s schema theory. * Application of schema theory in sporting situations. * Strategies to improve information processing. | Read textbooks AQA PE For A-level Years 1 & 2  Class notes  End of topic tests  Need to continue to gain video footage of **full competitive play**, and provide written commentary |
| 4 | **3.1.1.6 Energy systems**   * Energy transfer in the body. * Energy continuum of physical activity. * Energy transfer during short duration/high intensity exercise. * Energy transfer during long duration/lower intensity exercise. * Factors affecting VO max/ aerobic power. * Measurements of energy expenditure. * Impact of specialist training methods on energy systems. | **3.1.3.2.1 Sociological theory applied to equal opportunities**   * Understanding of the definitions of the following key terms in relation to the study of sport and their impact on equal opportunities in sport and society:   - society  - socialisation  - social processes  - social issues  - social structures/stratification.   * Understanding social action theory in relation to social issues in physical activity and sport. * Underrepresented groups in sport. * Understanding the terms equal opportunities, discrimination, stereotyping and prejudice. * The barriers to participation in sport and physical activity and possible solutions to overcome them for under represented groups in sport. * Benefits of raising participation. * The interrelationship between Sport England, local and national partners to increase participation at grass roots level and under represented groups in sport. | **3.2.3.1.1 Aspects of personality**   * Understanding of the nature vs nurture debate in the development of personality. * Interactionist perspective. * How knowledge of interactionist perspective can improve performance.   **3.2.3.1.2 Attitudes**   * Triadic model.   **3.2.3.1.3 Arousal**   * Theories of arousal. * Practical applications of theories of arousal and their impact on performance. * Characteristics of peak flow experience. | Read textbooks AQA PE For A-level Years 1 & 2  Class notes  End of topic tests  **End of term deadline** to gain video footage of **full competitive play**, and to provide written commentary.  Visit to Bath University TBC. |
| 5 | **3.2.1.2 Preparation and training methods in relation to maintaining physical activity and performance**   * Understanding key data terms for laboratory conditions and field tests. * Physiological effects and benefits of a warm-up and cool down. * Principles of training. * Application of principles of periodisation. * Training methods to improve physical fitness and health.   **Mock Exam** | **3.2.4.2 Development of elite performers in 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 support services provided by national institutes of sports for talent development.   The key features of UK Sport’s World Class Performance Programme, Gold Event Series and Talent Identification and Development.  **Mock Exam** | **3.2.3.1.4 Anxiety**   * Types of anxiety. * Advantages and disadvantages of using observations, questionnaires and physiological measures to measure anxiety.   **3.2.3.1.5 Aggression**   * Difference between aggression and assertive behaviour. * Theories of aggression. * Strategies to control aggression.   **3.2.3.1.6 Motivation**   * Motivation.   **Mock Exam** | Read textbooks AQA PE For A-level Years 1 & 2  Class notes  Past exam questions  Visit to Southampton FC (Bath) & Bath University TBC |
| 6 | **NEA - Coursework** | **NEA - Coursework** | **NEA - Coursework** |  |
| **Year 2** |  |  |  |  |
| Term 1 | **3.2.1.1 Diet and nutrition and their effect on physical activity and performance**   * Understand the exercise-related function of food classes. * Positive and negative effects of dietary supplements/manipulation on the performer.   **3.2.1.1 Injury prevention and the rehabilitation of injury**   * Understand Types of injury. * Understanding different methods used in injury prevention, rehabilitation and recovery. * Physiological reasons for methods used in injury rehabilitation. * Importance of sleep and nutrition for improved recovery. | **3.2.4.3 Ethics in sport**   * Amateurism, the Olympic Oath, sportsmanship, gamesmanship, win ethic. * Positive and negative forms of deviance in relation to the performer.   **3.2.4.4 Violence in sport**   * 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. | **3.2.3.1.7 Achievement motivation theory**   * Atkinson’s model of achievement motivation. * Characteristics of personality components of achievement motivation. * Impact of situational component of achievement motivation. * Achievement goal theory. * Strategies to develop approach behaviours leading to improvements in performance. | Read textbooks AQA PE For A-level Years 1 & 2  Class notes  End of topic tests  Need to continue to gain video footage of **full competitive play**, and provide written commentary  Visit to Bath Rugby or Southampton FC (Bath) TBC |
| 2 | **3.2.2.1 Biomechanical principles**   * Newton’s three laws of linear motion applied to sporting movements. * Definitions, equations and units of example scalars. * Centre of mass. * Factors affecting stability. | **3.2.4.5 Drugs in sport**   * 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. * The positive and negative implications to the sport and the performer of drug taking. * Strategies for elimination of performance enhancing drugs in sport. * Arguments for and against drug taking and testing. | **3.2.3.1.8 Social facilitation**   * Social facilitation and inhibition. * Evaluation apprehension. * Strategies to eliminate the adverse effects of social facilitation and social inhibition.   **3.2.3.1.9 Group dynamics**   * Group formation. * Cohesion. * Steiner’s model of potential and actual productivity, faulty group processes. * Ringelmann effect and social loafing. * Strategies to improve cohesion, group productivity and overcome social loafing to enhance team performance. | Read textbooks AQA PE For A-level Years 1 & 2  Class notes  End of topic tests  Need to continue to gain video footage of **full competitive play**, and provide written commentary |
| 3 | **3.2.2.3 Linear motion**   * An understanding of the forces acting on a performer during linear motion. * Definitions, equations and units of vectors and scalars. * The relationship between impulse and increasing and decreasing momentum in sprinting through the interpretation of force/time graphs.   **3.2.2.4 Angular motion**   * Application of Newton’s laws to angular motion. * Definitions and units for angular motion.   Conservation of angular momentum during flight, moment of inertia and its relationship with angular velocity. | **3.2.4.6 Sport and the Law**   * The uses of sports legislation.   **3.2.4.7 Impact of commercialisation on physical activity and sport and the relationship between sport and the media**   * The positive and negative impact of commercialisation, sponsorship and the media | **3.2.3.1.10 Importance of goal setting**   * Benefits of types of goal setting. * Principles of effective goal setting.   **3.2.3.1.11 Attributing theory**   * 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. * Strategies to avoid learned helplessness leading to improvements in performance. | Read textbooks AQA PE For A-level Years 1 & 2  Class notes  End of topic tests  Need to continue to gain video footage of **full competitive play**, and provide written commentary |
| 4 | **3.2.2.5 Projectile motion**   * Factors affecting horizontal displacement of projectiles. * Factors affecting flight paths of different projectiles. * Vector components of parabolic flight.   **3.2.2.6 Fluid mechanics**   * Dynamic fluid force. * Factors that reduce and increase drag and their application to sporting situations. * The Bernoulli principle applied to sporting situations. | **3.2.4.8 The role of technology in physical activity and sport**   * Understanding of technology for sports analytics. * Functions of sports analytics. * The development of equipment and facilities in physical activity and sport, and their impact on participation and performance. * The role of technology in sport and its positive and negative impacts. | **3.2.3.1.12 Self-efficacy and confidence**   * Characteristics of self-efficacy, self-confidence and self-esteem. * Bandura’s model of self-efficacy. * Vealey’s model of self-confidence. * Effects of home field advantage. * Strategies to develop high levels of self-efficacy leading to improvements in performance.   **3.2.3.1.13 Leadership**   * Characteristics of effective leaders. * Styles of leadership. * Evaluation of leadership styles for different sporting situations. * Prescribed and emergent leaders. * Theories of leadership in different sporting situations.   **3.2.3.1.14 Stress management**   * Explanation of the terms ‘stress’ and ‘stressor’. * Use of warm up for stress management. * Effects of cognitive and somatic techniques on the performer. * Explanation of cognitive techniques. * Explanation of somatic techniques. | Read textbook AQA PE For A-level Year 2  Class notes  End of topic tests  Need to continue to gain video footage of **full competitive play**, and provide written commentary  Visit to Bath University & Bath Rugby TBC.  Possible link with Team Sky Cycling and British Bobsleigh TBC. |
| 5 | **Revision & Exams** | **Revision & Exams** | **Revision & Exams** |  |
| 6 | **Exams** | **Exams** | **Exams** |  |