

**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 MarchTo 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 MarchTo 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 mechanismsRelationship 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
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|  | 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
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| 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 – TuckmanCohesion – 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 & 2Class notes End of topic testsNeed to continue to gain video footage of **full competitive play**, and provide written commentaryVisit 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 & 2Class notes End of topic testsNeed 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 & 2Class notes End of topic testsNeed 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 & 2Class 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 & 2Class notes Past exam questionsVisit 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 & 2Class notes End of topic testsNeed to continue to gain video footage of **full competitive play**, and provide written commentaryVisit 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 & 2Class notes End of topic testsNeed 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 & 2Class notes End of topic testsNeed 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 2Class notes End of topic testsNeed to continue to gain video footage of **full competitive play**, and provide written commentaryVisit 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** |  |