

Beths Grammar School KS4 Physical Education Curriculum Map

Term AQA Specification	INTENT	IMPLEMENTATION	IMPACT
	Substantive Knowledge This is the specific, factual content for the topic, which should be connected into a careful sequence of learning.	Disciplinary Knowledge (Skills) This is the action taken within a particular topic in order to gain substantive knowledge.	Assessment opportunities What assessments will be used to measure student progress? Evidence of how well students have learned the intended content.
Autumn Term Y10 1A	Skeletal System & Synovial Joints: Names and locations of major bones; structures and functions of synovial joints; hinge joints (knee, elbow, ankle) and ball and socket joints (shoulder, hip); movement types (flexion, extension, adduction, abduction, rotation). Muscular System & Mechanics of Breathing: Major muscle names and locations; muscle contractions enabling movement; pathway of air (nose, mouth, trachea, bronchi, bronchioles, alveoli); gaseous exchange at the alveoli (diffusion of oxygen and carbon dioxide); muscles involved in inhalation/exhalation (diaphragm, intercostals, abdominals, obliques, pectoralis major, sternocleidomastoid); lung volumes and spirometer trace interpretation. Cardiorespiratory System & Blood Vessels: Four chambers of the heart (atria, ventricles) and associated vessels (aorta, vena cava, pulmonary artery/vein); cardiac cycle, blood flow pathway, systole, and diastole; structure and function of blood vessels (arteries,	Skeletal & Muscular Analysis: Apply knowledge of bones, joints, and muscle contractions to explain movement mechanics in specific sporting examples. Data & Graphical Interpretation: Analyse heart rate graphs (identifying anticipatory rise and intensity changes); interpret and draw spirometer traces for lung volumes. Mathematical Application: Calculate cardiac output (Q) given stroke volume and heart rate data. Evaluation & Justification: Evaluate the relevance of different recovery methods and respiratory/cardiovascular functions across various sports and performance levels Sequenced Delivery: Delivered over a 6-week block covering Skeletal System (Week 1), Muscular & Respiratory Systems (Week 2), Blood Vessels & Cardiac Output (Weeks 3 & 5), Cardiorespiratory System & Pathway of Blood (Week 4), and Respiration, EPOC & Exercise Effects (Week 6). Practical & Theoretical Links: Linking theoretical anatomy and physiological processes directly to physical activity performance assessments and specific sporting movements.	Weekly Topic Questions: Short-answer recall and application questions to check ongoing understanding. Topic & End-of-Unit Tests: Structured assessments evaluating substantive knowledge retention across anatomy and physiology topics. Specimen Exam Papers: Chapter 1 end-of-term assessment using GCSE-style exam questions to test analytical, data interpretation, and evaluative skill execution. Practical Assessment: Observation and evaluation of student practical performance across three different sporting activities in the role of player/performer.

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	capillaries, veins) including lumen, vasoconstriction, and vasodilation. Cardiac Output & Calculations: Definitions of heart rate, stroke volume, and cardiac output; mathematical relationship formula Respiration, Recovery, & Effects of Exercise: Definitions and equations for aerobic and anaerobic respiration; recovery methods (cool down, stretching, ice baths, massage) and EPOC/lactic acid removal; immediate, short-term, and long-term effects of exercise (DOMS, hypertrophy, resting heart rate changes, cramps).	Vocabulary Acquisition: Targeted teaching of Tier 2 and Tier 3 terminology (e.g., <i>vasoconstriction</i>, <i>hypertrophy</i>, <i>diastole</i>, <i>EPOC</i>, <i>gaseous exchange</i>, <i>oxyhaemoglobin</i>). Data Skill Integration: Guided instruction on plotting graphs, predicting and drawing spirometer trace continuations, and performing cardiac calculations.	
Autumn Term 1B	<u>Intent</u> The Human Body and Movement in Physical Activity and Sport (Paper 1)		Weekly topic questions Topic tests End of Unit tests Specimen Exam papers
	The principles of training and overload. Applications of the principles of training. Types of training- including an introduction to the analysis and evaluation task. Types of training (continued) with reference to the advantages and disadvantages of using these types for different sports. Performance assessment (practical performance) in three different activities in the role of player/performer only.	SPORT to include: • specificity • progressive overload • reversibility • tedium. Key principles of overload. FITT to include: • frequency • intensity • time	

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		type. How the principles can be applied to a sport. How the principles can be applied to varying sports. Evaluate how certain principles hold particular importance when training for certain sports. Name of each training type and basic understanding. Basic evaluation of the importance of a training type to an activity. Evaluation and justification (with reasoned conclusions) as to why some training types are particularly useful for specified sports. Basic recall of the specified intensities. Applications of each to specific training types.	
Spring Term 2A	Intent The Human Body and Movement in Physical Activity and Sport (Paper 1)	Linking the principles of training to sporting activities and training types, justifying the choice and the calculated intensity to be used. Basic recall of the potential ways to prevent injury. Evaluation of which ways are appropriate to which training types and sporting activities. What is meant by altitude training. Knowledge of the physiology whilst at altitude. Knowledge of the benefits when returning to sea level. Evaluation of who would use altitude training with reasoned conclusions.	Weekly topic questions Topic tests End of Unit tests Specimen Exam papers
	Calculating intensity. Considerations to prevent injury. High altitude training and seasonal aspects. Warming up and cooling down. Application of the principles to the analysis and evaluation Performance assessment (practical performance) in three different activities in the role of player/performer only.		

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		The names of the three seasons. Explanation of what each season entails. Application to varying sporting examples. Evaluation of the importance of each season. What 'parts' a warm up and cool down should entail. How these 'parts' can be done. Applied examples to sporting activities. Evaluation of the benefits to be achieved.	
Spring Term 2B	Intent The Human Body and Movement in Physical Activity and Sport (Paper 1)		Weekly topic questions Topic tests End of Unit tests Specimen Exam papers
	The pathway of air and gaseous exchange. Blood vessels. Structure of the heart and the cardiac cycle (pathway of blood). Cardiac output and stroke volume (including the effects of exercise). Mechanics of breathing and interpretation of a spirometer trace. Aerobic and anaerobic exercise. Recovery/EPOC. The short and long term effects of exercise.	Identification of the pathway of air (limited to topic content). Names of pathways. Order of pathways. Identification of pathways on diagrams. Characteristics and functions of the alveoli. Identify features/ characteristics. Identify features/ characteristics on a diagram. Understand the role of haemoglobin in the transport of oxygen and carbon dioxide. Explain how the features/ characteristics assist with gaseous exchange. Oxygen combines with haemoglobin in the red blood cells to form oxyhaemoglobin. Students should also know that haemoglobin can carry carbon dioxide. Name the vessels. Describe the vessels (diameter etc). Identify the vessels from an illustration. Apply the structure to the function of each vessel. Assess each vessels relative importance. Students should know the names of the arteries and veins associated with blood entering and leaving the heart. Further	

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	Performance assessment (practical performance) in three different activities in the role of player/performer only.	apply the learning to the vessels entering/ exiting the heart. Names of the chambers. Position within the heart. Basic role of each chamber. Correlate the chamber to the adjoining vessels Re-cap of heart chambers/ vessels. Order of the cardiac cycle. Understanding of the cardiac cycle from different starting points. Identification of the cardiac cycle in relation to illustrated diagrams. Full knowledge and understanding linked to blood vessels/systole/ diastole. Students should be able to interpret heart rate graphs, including an 'anticipatory rise', and changes in intensity. Know the terms. Understand the relationship to calculate cardiac output. Be able to analyse data and spot changes in heart rate. Plot graphs to demonstrate heart rate data that can be explained/ analysed. Name the anatomical parts involved. Explain how these work together during inhalation. Explain how these work together during exhaling (including the role of other muscles). Evaluate their role, eg evaluate the role of the diaphragm. Names of the lung volumes. Explain what each volume is. Be able to identify each on a spirometer trace. Be able to interpret /analyse each on a spirometer trace. Be able to predict what each will do based on information/ draw continuation of the trace. Students should be able to analyse and draw traces. Understand the terms aerobic and anaerobic. Recite the equations. Reasons why recovery is needed. Understanding of the process of recovery. Ability to identify the process of recovery on diagrams. Know the name of each method. Explain how each method is carried out. Justify why these methods are used.	
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		Name the effects. Explain the effects.	
Summer Term 3A	Intent The Human Body and Movement in Physical Activity and Sport (Paper 1)	Know the names of the three components of a lever. Identify the points on a lever diagram. Link the levers to anatomical body parts (joints). Draw linear versions of a lever, showing the positioning of the fulcrum, load/resistance and effort. Interpretation of sporting movements or actions which involve flexion or extension of the elbow, hip and/or knee, and plantar or dorsi-flexion at the ankle. Label the effort and weight/ resistance arm on a lever. Know the equation. Justify why one lever has a bigger mechanical advantage than another. Know the names of movements and what they mean. Identify movements when in action. Interpret movements from one position to another. Interpret sporting movements at the shoulder, elbow, hip, knee and ankle. Identify the planes of the body. Identify the axes of the body. Link the two together and make links to basic movements. Identify the relevant plane/ axes used within specified sporting movements.	Weekly topic questions Topic tests End of Unit tests Specimen Exam papers
	First, second and third class levers. Mechanical advantage. Analysis of basic movements in sporting examples. Analysis of basic movements in sporting examples. Planes and axes. Performance assessment (practical performance) in three different activities in the role of player/performer only.		
Summer Term 3B	Intent Paper 2: Socio-cultural influences and well-being in physical activity and sport		Weekly topic questions Topic tests End of Unit tests Specimen Exam papers

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	Skill and ability, including classification of skill. Definitions and types of goals. The use and evaluation of setting performance and outcomes goals, including the use of SMART targets to improve/optmise performance. Basic information processing. Performance assessment (practical performance) in three different activities in the role of player/performer only. Revision of Year One content. Mock exam Review and feedback to students.	Basic recall of the definitions of each. Understand how a continua line works. Knowledge of each continua extreme, eg closed. Application of each point of the continua lines to sporting examples. Full justifications for the choices of where skills fall. The names of the goal types. Explanation of these goal types. Application of the goal types to sporting examples. Evaluation of these goal types to various level of performers. Know the names. Explain what they mean. Apply them to varying examples, ie what could a SMART target be for? Know the names of the stages. Be able to identify the stages on a diagram (including memory). Be able to explain the stages for basic skills. Be able to explain the stages for a variety of skills. Be able to evaluate the importance of each stage. Know the types of guidance.	
Autumn Term Y11 1A	Intent The Human Body and Movement in Physical Activity and Sport (Paper 1)	Students should develop knowledge and understanding of the principles of training and different training methods in order to plan, carry out, monitor and evaluate personal exercise and training programmes. Simple recall of the definitions.	Weekly topic questions Topic tests End of Unit tests Specimen Exam papers

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		Use of the definitions. Basic links of the relationship. How one can affect the other and vice versa. Recap the definitions above. Apply each to extreme examples, eg speed for sprinting. Apply to mixed use, eg in games. Evaluate and justify the importance of the components to varying sporting examples. Use of reasoned conclusions. Recall reasons for fitness testing. Recall limitations of fitness testing. Build on the repertoire of knowledge. E.g. reasons for carrying out an agility test. The basic protocol of each test. Full explanation of how to administer/ carry out each test. Include how data is collected. Evaluate the suitability of using each test for differing sports people.	
	Health and fitness recap, including the relationship between health and fitness. The components of fitness. Linking sports and activities to the required components of fitness. Reasons for and limitations of fitness testing. Measuring the components of fitness and demonstrating how data is collected.		

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	Performance assessment (practical performance) in three different activities in the role of player/performer only.		
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