Curriculum Map: Year 12 **Subject: BTEC Sport Unit 1**

	Key Knowledge - what will students know by the end of this topic?	**Key skills**- what skills will students have developed by the end of this topic?	**Assessment opportunities** - How is progress measure?
1-7 Sep-Oct half term	Structure of skeletal system Understand how the bones of the skeleton are used in sporting techniques and actions Function of skeletal system Understand how the functions of the skeleton and bone types are used in sporting actions and exercise. Joints - Understand how joints of the upper and lower skeleton are used in sporting techniques and actions. Responses of the skeletal system to a single sport or exercise session Adaptations of the skeletal system to exercise. The impact of long-term effects of exercise on sports performance. Additional factors affecting the skeletal system Understand the impact of the skeletal system on exercise and sports performance and the impact of exercise and sports performance on the skeletal system.	**The ability to describe, explain, analyse and evaluate the following for the Skeletal system**: AO1 Demonstrate knowledge of body systems, structures, functions, characteristics, definitions and other additional factors affecting each body system. Command words: describe, give, identify, name. AO2 Demonstrate understanding of the skeletal system, the short- and long-term effects of sport and exercise on the skeletal system and additional factors that can affect body systems in relation to exercise and sporting performance. Command words: describe, explain, give, name, state. AO3 Analyse exercise and sports movements, how the body responds to short-term and long-term exercise and other additional factors affecting each body system. Command words: analyse, assess AO4 Evaluate how body systems are used and how they interrelate in order to carry out exercise and sporting movements Command words: assess, evaluate	Ongoing teacher assessment and questioning. Regular homework – using 'The Everlearner' online platform. Regular 'Test yourself' topic tests. Formal mock assessment. Peer/Self-assessment Regular interleaving starter tests checking previous learning JDI's ('Just Do It' starter tests)
Oct-Christmas	Characteristics and functions of different types of muscles. Understand different types of muscles and their use in sport. Major skeletal muscles of the muscular system Major skeletal muscles and their combined use in a range of sporting actions.	**The ability to describe, explain, analyse and evaluate the following for the Muscular system**: AO1 Demonstrate knowledge of body systems, structures, functions, characteristics, definitions and other additional factors affecting each body system. Command words: describe, give, identify, name.	Ongoing teacher assessment and questioning. Regular homework – using 'The

	Antagonistic muscle pairs Movement of muscles in antagonistic pairs and their use in a variety of sporting actions. Types of skeletal muscle contraction Understand skeletal muscle contraction in different sporting actions. Muscle Fibre types Responses of the muscular system to a single sport or exercise session	AO2 Demonstrate understanding of the skeletal system, the short- and long-term effects of sport and exercise on the skeletal system and additional factors that can affect body systems in relation to exercise and sporting performance. Command words: describe, explain, give, name, state. AO3 Analyse exercise and sports movements, how the body responds to short-term and long-term exercise and other additional factors affecting each body system. Command words: analyse, assess AO4 Evaluate how body systems are used and how they interrelate in order to carry out exercise and sporting movements Command words: assess, evaluate AO5 Make connections between this body system and others in response to short-term and long-term exercise and sport participation. Make connections between muscular and all other systems, cardiovascular and respiratory systems, energy and cardiovascular systems Command words: analyse, assess, discuss, evaluate, to what extent	Everlearner' online platform. Regular 'Test yourself' topic tests. Formal mock assessment. Peer/Self-assessment Regular interleaving starter tests checking previous learning JDI's ('Just Do It' starter tests)
Jan-Feb half term	C1 Structure of the respiratory system • Structure of the respiratory system (nasal cavity, epiglottis, pharynx, larynx, trachea, bronchus, bronchioles, lungs, alveoli, diaphragm, thoracic cavity). • Intercostal muscles (external and internal). C2 Function Understand the function of the respiratory system in response to exercise and sports performance. • Mechanisms of breathing (inspiration and expiration) at rest and during exercise. • Gaseous exchange. C3 Lung volumes. Understand the lung volumes and the changes that occur in response to exercise and sports performance. • Tidal volume.	**The ability to describe, explain, analyse and evaluate the following for the Respiratory system**: AO1 Demonstrate knowledge of body systems, structures, functions, characteristics, definitions and other additional factors affecting each body system. Command words: describe, give, identify, name. AO2 Demonstrate understanding of the respiratory system, the short- and long-term effects of sport and exercise on the respiratory system and additional factors that can affect body systems in relation to exercise and sporting performance. Command words: describe, explain, give, name, state. AO3 Analyse exercise and sports movements, how the body responds to short-term and long-term exercise and other	Ongoing teacher assessment and questioning. Regular homework – using 'The Everlearner' online platform. Regular 'Test yourself' topic tests. Formal mock assessment. Peer/Self-assessment

	• Vital capacity. • Residual volume. • Total lung volume. • Minute ventilation (VE). C4 Control of breathing Understand how breathing rate is controlled in response to exercise and sports performance. • Neural (medulla oblongata as the respiratory centre in the brain). • Chemical (chemoreceptors detect change in blood carbon dioxide concentrations and changes in pH). C5 Responses of the respiratory system to a single sport or exercise session • Increase in breathing rate. • Increased tidal volume. C6 Adaptations of the respiratory system to exercise. The impact of adaptation of the system on exercise and sports performance. • Increased vital capacity. • Increased strength of the respiratory muscles. • Increase in oxygen and carbon dioxide diffusion rate. C7 Additional factors affecting the respiratory system Understand additional factors affecting the respiratory system and their impact on exercise and sports performance. • Asthma. • Effects of altitude/partial pressure on the respiratory system.	additional factors affecting each body system. Command words: analyse, assess AO4 Evaluate how body systems are used and how they interrelate in order to carry out exercise and sporting movements Command words: assess, evaluate AO5 Make connections between this body system and others in response to short-term and long-term exercise and sport participation. Make connections between muscular and all other systems, cardiovascular and respiratory systems, energy and cardiovascular systems Command words: analyse, assess, discuss, evaluate, to what extent	Regular interleaving starter tests checking previous learning JDI's ('Just Do It' starter tests)
Feb-Easter	D1 Structure of the cardiovascular system • Structure of the cardiovascular system – atria, ventricles, bicuspid valve, tricuspid valve, semi-lunar valves, septum, major blood vessels (aorta, vena cava, pulmonary artery, pulmonary vein), coronary arteries. • Structure of blood vessels – arteries, arterioles, veins, venuoles, capillaries.	**The ability to describe, explain, analyse and evaluate the following for the Cardiovascular system**: AO1 Demonstrate knowledge of body systems, structures, functions, characteristics, definitions and other additional factors affecting each body system. Command words: describe, give, identify, name.	Ongoing teacher assessment and questioning. Regular homework – using 'The Everlearner' online platform.

	• Composition of blood – red blood cells, plasma, white blood cells, platelets. D2 Function of the cardiovascular system Understand the function of the cardiovascular system in response to exercise and sports performance. • Delivery of oxygen and nutrients. • Removal of waste products – carbon dioxide and lactate. • Thermoregulation – vasoconstriction, vasodilation of blood vessels. • Fight infection. • Clot blood. D3 Nervous control of the cardiac cycle Understand the control of the cardiac cycle and how it changes during exercise and sports performance. D4 Responses of the cardiovascular system to a single sport or exercise session • Anticipatory increase in heart rate prior to exercise. • Increased heart rate. • Increased cardiac output. • Increased blood pressure. • Redirection of blood flow. D5 Adaptations of the cardiovascular system to exercise. The impact of adaptation of the system on exercise and sports performance. • Cardiac hypertrophy. • Increase in resting and exercising stroke volume. • Decrease in resting heart rate. • Capillarisation of skeletal muscle and alveoli. • Reduction in resting blood pressure. • Decreased heart rate recovery time. • Increase in blood volume. D6 Additional factors affecting the cardiovascular system Understand additional factors affecting the cardiovascular system and their	AO2 Demonstrate understanding of the skeletal system, the short- and long-term effects of sport and exercise on the skeletal system and additional factors that can affect body systems in relation to exercise and sporting performance. Command words: describe, explain, give, name, state. AO3 Analyse exercise and sports movements, how the body responds to short-term and long-term exercise and other additional factors affecting each body system. Command words: analyse, assess AO4 Evaluate how body systems are used and how they interrelate in order to carry out exercise and sporting movements Command words: assess, evaluate AO5 Make connections between this body system and others in response to short-term and long-term exercise and sport participation. Make connections between muscular and all other systems, cardiovascular and respiratory systems, energy and cardiovascular systems Command words: analyse, assess, discuss, evaluate, to what extent	Regular 'Test yourself' topic tests. Formal mock assessment. Peer/Self-assessment Regular interleaving starter tests checking previous learning JDI's ('Just Do It' starter tests)

	impact on exercise and sports performance. (Sudden arrhythmic death syndrome (SADS), High blood pressure/low blood pressure, Hyperthermia/hypothermia)		
Easter-Summer Exam date	E1 The role of ATP in exercise Understand the role of adenosine triphosphate (ATP) for muscle contraction for exercise and sports performance. • Immediately accessible form of energy for exercise. • Breakdown and resynthesis of ATP for muscle contraction. E2 The ATP-PC (alactic) system in exercise and sports performance Understand the role of the ATP-PC system in energy production for exercise and sports performance. • Anaerobic. • Chemical source (phosphate and creatine). • Resynthesis of ATP. • Recovery time. • Contribution to energy for exercise and sports performance (duration and intensity of exercise). E3 The lactate system in exercise and sports performance Understand the role of the lactate system in energy production for exercise and sports performance. • Anaerobic. • Process of anaerobic glycolysis (glucose converted to lactic acid). • Recovery time. • Contribution to energy for exercise and sports performance (duration and intensity of exercise). E4 The aerobic system in exercise and sports performance Understand the role of the aerobic energy system in energy production for exercise and sports performance. • Aerobic site of reaction (mitochondria). • Food fuel source. • Process of aerobic glycolysis, Krebs cycle, electron transport chain. • Recovery time.	**The ability to describe, explain, analyse and evaluate the following for the Energy system**: AO1 Demonstrate knowledge of body systems, structures, functions, characteristics, definitions and other additional factors affecting each body system. Command words: describe, give, identify, name. AO2 Demonstrate understanding of the skeletal system, the short- and long-term effects of sport and exercise on the skeletal system and additional factors that can affect body systems in relation to exercise and sporting performance. Command words: describe, explain, give, name, state. AO3 Analyse exercise and sports movements, how the body responds to short-term and long-term exercise and other additional factors affecting each body system. Command words: analyse, assess AO4 Evaluate how body systems are used and how they interrelate in order to carry out exercise and sporting movements Command words: assess, evaluate AO5 Make connections between this body system and others in response to short-term and long-term exercise and sport participation. Make connections between muscular and all other systems, cardiovascular and respiratory systems, energy and cardiovascular systems Command words: analyse, assess, discuss, evaluate, to what extent	Ongoing teacher assessment and questioning. Regular homework – using 'The Everlearner' online platform. Regular 'Test yourself' topic tests. Formal mock assessment. Peer/Self-assessment Regular interleaving starter tests checking previous learning JDI's ('Just Do It' starter tests)

	• Contribution to energy for exercise and sports performance (duration and intensity of exercise). E5 Adaptations of the energy system to exercise. The impact of adaptation of the systems on exercise and sports performance. • ATP-PC. • Increased creatine stores. • Lactate system. • Increase tolerance to lactate. • Aerobic energy system. • Increased use of fats as an energy source. • Increased storage of glycogen. • Increased numbers of mitochondria. E6 Additional factors affecting the energy systems Understand additional factors affecting the energy systems and their impact on exercise and sports performance. • Diabetes (hypoglycaemic attack). • Children's lack of lactate system.		