YEAR 12 PE AUTUMN TERM

'An ambitious curriculum that meets the needs of all'

Medium Term Planning - Topic: PE

Curriculum Intent	**In addition to working further on objectives from Year 12, pupils will be taught, following National Curriculum guidelines, the following this term:**
Skills/National Curriculum Links	Students should develop knowledge and understanding of the changes within the body systems prior to exercise, during exercise of differing intensities and during recovery. Students should be able to interpret data and graphs relating to changes within the Musculo-skeletal, cardio-respiratory and neuro-muscular systems and the use of energy systems during different types of physical activity and sport, and the recovery processes. Students should develop knowledge and understanding of the principles required to optimise learning of new, and the development of existing, skills in a range of physical activities. Students should be able to understand and interpret graphical representations associated with skill acquisition theories. Students should be able to develop knowledge and understanding of the interaction between, and the evolution of sport and society. Students should be able to understand, interpret and analyse data and graphs relating to participation in physical activity and sport.
Cross Curricular Links	**SMSC:** learning how to work with others. **PSHE/British Values:** healthy, active lifestyle **Literacy:** key words and terms linked to anatomy and physiology, skill acquisition and sport and society, command words when answering exam questions. **Numeracy:** ability to read graphs, tables, plot data, calculate cardiac output, stroke volume, heart rate, respiratory rate, minute ventilation etc. **Skills Builder:** leadership, teamwork, listening to others, collaborating
Becoming future ready	**Personal Skills:** knowledge of the human body, how the body works. **Careers/Employability:** career in sport, sports studies, sports science etc
Adaptation **QFT/SEND Provision**	Throughout this topic, quality first teaching will provide differentiation: **By product:** written information on learning mats, some through practical setting. **By resource:** textbooks, videos, learning mats, handouts to read through, graphs, tables and charts. **By Intervention**: by providing different levels of supervision and support **By Progressive Questioning:** exploring pupils' understanding through interactive dialogue. **By Grouping:** according to prior attainment, gender, social preference, preferred learning style. **By Task:** Pupils should be involved in the identification of targets which are meaningful to them and in the selection of an appropriate task from the given range. **By Offering Optional Activities:** In class or as homework, to extend learning. This QFT/SEND provision will be explicit within the lesson-by-lesson schemes of work.
Implementation Curriculum Delivery **Learning Outcomes (Knowledge)**	**Anatomy and Physiology** To be able to: • Analyse types of joints, joint action at shoulder, hip, elbow, knee and ankle and articulating bones at these joints. • Analyse types of muscular contractions (isotonic – concentric and eccentric and isometric) and apply to sporting movements with main agonists and antagonists. • Understand planes, axes and movements in and about these. • Define health and fitness (cardiac output for trained and untrained individuals and at maximal and sub-maximal exercise). • Explain heart disease, high blood pressure, effects of cholesterol and stroke. • Explain anticipatory rise. • Identify the stages of the cardiac conduction system. • Understand and describe the role of receptors in increasing/decreasing heart rate during exercise.

- Understand and describe the role of receptors involved in the redistribution of blood (vascular shunting – vasocontraction and vasodilation).
- Explain the role of haemoglobin and myoglobin.
- Understand the oxyhaemoglobin dissociation curve and the Bohr shift.
- Explain the mechanisms of venous return and the relationship with blood pressure (systolic and diastolic).
- Describe Starling's law of the heart and explain impact on performance.
- Explain cardiovascular drift and why it occurs.
- Analyse A-VO2 difference and variations in response to exercise, variations between trained and untrained performer and adaptation to body systems resulting in training effect.
- Understand lung volumes and how the impact/change during physical activity (residual volume, expiratory and inspiratory reserve volume, tidal volume and minute ventilation).
- Understand and explain the role of receptors in neural and chemical regulation of pulmonary ventilation during physical activity.
- Gas exchange systems at alveoli and muscles.
- Impact of poor lifestyle choices on the respiratory system.

Skill acquisition

- Identify characteristics of skill
- Use a skill continua (open-closed, discrete-serial-continuous, gross-fine, self-paced-externally paced, high-low, simple-complex)
- Justify skill placement at each continua
- Understand transfer of learning (positive, negative, zero, bilateral)
- Understand how transfer of learning impacts on skill development
- Explain methods of presenting practice (whole, progressive part, whole-part-whole)
- Explain types of practice (massed, distributed, variable, mental)
- Understand how knowledge of skill classification informs practice structure (presentation and type) to allow learning/development of skill.
- Identify the stages of learning and how feedback differs between them (cognitive, associative, autonomous).
- Understand a leaning plateau – causes and solutions
- Understand cognitive theories (insight learning – Gestalt)
- Understand behaviourism (operant conditioning – Skinner)
- Understand social leaning (observational learning – Bandura)
- Understand constructivism (social development theory – Vygotsky)
- Understand and explain how theories of learning impact on skill development.
- Explain methods of guidance (verbal, visual, manual, mechanical)
- Understand the different purposes and types of feedback (knowledge of performance, knowledge of results, positive and negative, intrinsic, extrinsic).
- Analyse how feedback and guidance impacts skill development
- Explain input, decision making, output and feedback in information processing models
- Understand Baddeley and Hitch working memory model memory system (functions and characteristics of components of working memory model).
- Apply Whiting's information processing model to a range of sporting contexts
- Apply an understanding of information processing terms within a sporting context (environment, display, sensory organs, perceptual mechanism, translatory mechanism, effector mechanism, muscular system output data, feedback data).
- Define and explain the relationship between reaction time, response time and movement time (simple and choice reaction time).
- Identify factors affecting response time (Hick's law, psychological refractory period, single channel hypothesis).
- Define anticipation (temporal and spatial)
- Identify strategies to improve response time
- Understand Schmidt's schema theory (recall, recognition, initial conditions, response specifications, sensory consequences, response outcomes).
- Apply schema theory in sporting situations
- Analyse strategies to improve information processing – input (selective attention), decision making process (chunking, chaining, response time, schema).

Sport and society

- Identify characteristics of society and impact on sporting recreation – two-tier class system, rural, limited communication/technology/transport, widespread illiteracy, harsh lifestyle.
- Identify characteristics of sporting recreation (limited to mob football and real tennis).

	• Identify the characteristics and impact on sport (limited to development of association football, lawn tennis, rationalisation of track and field and events and the role of the Wenlock Olympian Games). Key terms and concepts to understand include the industrial revolution, urbanisation, transport and communication, The British Empire, provision through factories, churches and local authorities, public schools/universities, three-tier class system, development of NGBs, consideration of the changing role of women in sport and the status of amateur and professional performers. **NEA written coursework** • Identify and analyse two individual weaknesses from chosen activity for AA2 and AA3. • Identify and analyse how weakness differs from perfect model and how the weakness impacted the competitive situation. Red denotes interleaving; aspects of knowledge covered previously.
Current learning to be developed in the future within:	Exercise physiology topics, neuromuscular system, sport psychology and NEA written coursework.
Assessment	Refer to assessment maps for formative and summative assessment opportunities.
Impact	Attainment and Progress – Refer to assessment results / data review documentation.