

Medium Term Learning Plan

Year/Group: KS 4

 Course: **GCSE PE – Applied Anatomy and Physiology**

About the unit	Assessment Focus
Students should develop knowledge and understanding of the key body systems and how they impact on health, fitness and performance in physical activity and sport	NC levels/ Exam specification Beginners levels: 1-3 Skill Builders levels: 3-5 Advanced levels: 5-8
Key Content to be covered	Expected Learning Outcomes
<ul style="list-style-type: none"> • The structure and functions of the musculoskeletal system • The structure and functions of the cardio-respiratory system • Anaerobic and aerobic exercise • The short and long term effects of exercise 	<ul style="list-style-type: none"> • Understand how the body functions • Understand how the body reacts to exercise
Key Skills to be developed	Key Assessment Points (evidence)
<ul style="list-style-type: none"> • Anatomy and Physiology • Understanding of the effect of exercise on the human body 	<ul style="list-style-type: none"> • Pre and Post assessment • In class discussion
Language for Learning	Links to EBD/ personal, social and emotional needs
<ul style="list-style-type: none"> • Anatomy and Physiology • Human Physiology • Links to performance 	L1, L2, C6, C7, E14

Session	Learning Objectives	Content to be covered	Suggested Pedagogy/Teaching Activities	Learning Outcomes (Assessment/ Level descriptors for this lesson)
1	3.1.1.1 The structure and functions of the musculoskeletal system. The structure and functions of the musculoskeletal system	-Bones -Structure of the skeleton -Functions of the skeleton	<ul style="list-style-type: none"> • Use of diagrams • powerpoint • Label/ colour in diagrams • Describe human movement via blindfolded directions. (Only allowed to talk to each other use anatomical terms such as flexion, extension of the knee) • Pages 1 – 9 in Text books 	<p>Students to fully label skeleton with resources provided</p> <p>Students to verbally answer q and a on the skeletal system</p>
2	3.1.1.1 The structure and functions of the musculoskeletal system. The structure and functions of the musculoskeletal system	-Muscles of the body -Structure of a synovial joint	<ul style="list-style-type: none"> • Use of diagrams • Complete physical training sessions on specific body parts and describe the doms effect to students • Powerpoint on joints • Pages 1 – 9 in Text books 	<p>Students to complete lessons</p> <p>Students to label diagrams</p>

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3	3.1.1.1 The structure and functions of the musculoskeletal system. The structure and functions of the musculoskeletal system	<p>-Types of freely movable joints that allow different movements</p> <p>-How joints differ in design to allow certain types of movement at a joint</p>	<ul style="list-style-type: none"> • Students to complete q and a on joints • Students to complete practical activity on demonstrating movement using appropriate terms • Pages 1 – 9 in Text books 	Students to complete the activities assigned
4	3.1.1.1 The structure and functions of the musculoskeletal system. The structure and functions of the musculoskeletal system	<p>How the major muscles and muscle groups of the body work antagonistically on the major joints of the skeleton to affect movement in physical activity at the major movable joints</p>	<ul style="list-style-type: none"> • Students to take part in exercise regime using upper body and describe agonist/ antagonist contractions • Students to coach each other in this principle and highlight to students when they are using contraction, eccentric and isometric movements in exercise • Pages 1 – 9 in Text books 	<p>Students to reflect on the effect of exercise and complete reflection sheet</p> <p>Students to take part in coaching session and reflect on their own performance</p>

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5	3.1.1.2 The structure and functions of the cardio-respiratory system	<ul style="list-style-type: none"> -The pathway of air -Gaseous exchange -Blood vessels 	<ul style="list-style-type: none"> • Students to copy and label diagrams in the breathing process • Powerpoint presentation • Students colour in and label additional diagrams • Pages 10 – 18 in text books. 	Students to complete the diagrams
6	3.1.1.2 The structure and functions of the cardio-respiratory system	<ul style="list-style-type: none"> -Structure of the heart -The cardiac cycle and the pathway of the blood -Cardiac output, stroke volume and heart rate 	<ul style="list-style-type: none"> • Draw, label and colour a diagram of the heart • Describe the cardiac cycle • Create a powerpoint based on the journey of blood through the circulatory system • Pages 10 – 18 in text books. 	<p>Students to complete the diagrams</p> <p>Students to complete powerpoint and demonstrate it to the teacher</p>
7	3.1.1.2 The structure and functions of the cardio-respiratory system	<ul style="list-style-type: none"> -Mechanics of breathing – the interaction of the intercostal muscles, ribs and diaphragm in breathing -Interpretation of a spirometer trace 	<ul style="list-style-type: none"> • Draw, label and colour a diagram of the breathing process • Analyse and label spirometer trace 	Students to complete the tasks assigned

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8	3.1.1.3 Anaerobic and aerobic exercise	<p>-Understanding the terms aerobic exercise (in the presence of oxygen) and anaerobic exercise (in the absence of enough oxygen)</p> <p>-The use of aerobic and anaerobic exercise in practical examples of differing intensities</p>	<ul style="list-style-type: none"> • Pages 10 – 18 in text books. • Students to take part in aerobic and anaerobic physical activity. • Students to complete worksheet differentiating between anaerobic and aerobic exercises. • Pages 19 – 20 in text books 	<p>Students to complete the physical activities and complete reflection sheets</p> <p>Students to complete worksheets</p>
9	3.1.1.3 Anaerobic and aerobic exercise	<p>-Excess post-exercise oxygen consumption (EPOC)/oxygen debt as the result of muscles respiring anaerobically during vigorous exercise and producing lactic acid.</p> <p>-The recovery process from vigorous exercise</p>	<ul style="list-style-type: none"> • Powerpoint • Students to take part in maximal training session. Students to take pulse rates and monitor recovery rate. Analyse what recovery is. Students will need resting heart rate before taking part in exercise routine. • Pages 19 – 20 in text books 	<p>Students to reflect on the training session and complete reflection sheet.</p> <p>Students to analyse their heart rate before and after. Students to monitor their heart rate until it returns to resting heart rate and plot a graph. Higher level students to draw their own graph.</p>

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10	3.1.1.4 The short and long term effects of exercise	<ul style="list-style-type: none"> -Immediate effects of exercise (during exercise) -Short-term effects of exercise (up to 36 hours after exercise) -Long-term effects of exercise (months and years of exercising) 	<ul style="list-style-type: none"> • Students to research the short term and long term benefits of exercise and create a poster. • Pages 21 – 26 in text books 	Students to independently research their own benefits to exercise and complete a poster.
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