

A Level Learning Programme Year 1

Half Term/Term	Learning objective	Learning activity	Resources	Homework & Unit Test
2nd half Term Musculoskeletal System	<p>To know the types of joint, the articulating bones, main agonists and antagonists at the shoulder, elbow, hip, knee and ankle. Potential to teach PNF here rather than the previous unit as students will understand agonists and antagonist</p>	<p>Use a blank skeleton to label the types of joint and bones. Use a blank muscular diagram to label the muscles. Show image of how muscle is attached to the skeleton via tendons. Introduce the role of the agonist and antagonist using examples of the bicep curl. Video clips may help to explain. Give a number of sporting movements and ask students to label the different elements eg agonist, articulating bones, joint type. Ensure images show the variety of muscle contractions for explanations</p>	<p>Hodder Dynamic Online Learning</p> <p>PE Shared Area</p> <p>PE work booklet</p> <p>PE Topic on a page Sheets</p> <p>A Level PE book 1</p>	<p>Movement Analysis Questions</p> <p>A Level PE Paper 1 Work booklet.</p>
	<p>To understand joint actions. To be able to identify the joint action that occurs at the shoulder and elbow. To apply understanding of joint action at the shoulder and elbow to sporting examples.</p>	<p>Recap prior understanding of joint actions using match up cards. Use sporting images for pupils to identify actions. Introduce planes and axes using diagrams. Pupils could create their</p>		

	To know the planes and axes of the body.	own using plasticine or toilet roll centre and pieces of card (planes) with straws (for axes). Analyse a variety of sporting actions of the shoulder and elbow and identify the joint action, articulating bones, main agonists and antagonists. Practical opportunity: ask pupils to create movement/gymnastic sequences with movements in certain planes and axes – check knowledge.		
	To be able to identify the joint actions that occur at the hip, knee and ankle. To apply your understanding of joint actions at the hip, knee and ankle to sporting examples.	Analyse a variety of sporting actions of the hip, knee and ankle and identify the joint action, articulating bones, main agonists and antagonists.		
Energy Systems	Energy transfer in the body. Energy continuum of physical activity.	In classroom practical – repetitive fist clenching and releasing above your head. How long can you continue? Link different methods of producing energy to duration and intensity. Consider sources of energy production.	Hodder Dynamic Online Learning PE Shared Area PE work booklet	ATP- PC Question Lactic Acid System Questions Aerobic System Question EPOC Questions

	Energy transfer during short duration/high intensity exercise.	What is ATP? Exothermic/endothermic coupled reaction.	PE Topic on a page Sheets	OBLA Questions
	Energy transfer during short duration/high intensity exercise.	Lactic Acid System. Advantages and disadvantages. Sporting examples.	A Level PE book	VO2 Max Questions
	EPOC	Short term effects of exercise and what happens when we stop? Show EPOC on a graph. Highlight key terms. Relate the increased oxygen intake to the short term effects of exercise eg higher CO2, increased lactic acid. Fast and slow phase functions.		A Level PE Paper 1 Work booklet.
	Factors affecting VO2 max/ aerobic power.	Definition – brainstorm which factors (things) affect our ability to use oxygen. Video clip on VO2 max.		Presentation on Specialist Training Methods.
	Measurements of energy expenditure.	Why might a coach want to know which fuel an athlete is using/whether the athlete has produced lactate? Research task, or question writing on the topic.		

	<p>Impact of specialist training methods on energy systems.</p>	<p>Pupil presentations on each method or pupils to produce an exam paper and mark scheme on this topic – to follow a certain structure (similar to real paper).</p> <p>Practical - HIIT - use the Body Coach online for example.</p> <p>Pupils complete a few exercises to gain understanding and then become the Body Coach for a partner. Design a HIIT for them according to their needs and then take them through the HIIT then swap over roles.</p> <p>Plyometrics – discuss application to Sergeant Jump test – attempt with a hold between squat and jump and without a pause.</p> <p>This demonstrates the importance of the short ammortisation phase.</p>		
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