

Meden School Curriculum Planning							
Subject	A Level	Year Group	12 (part 2)	Sequence No.	1-10	Topic	Biomechanical Principles

Retrieval	Core Knowledge	Student Thinking
What do teachers need to retrieve from students before they start teaching new content ?	What specific ambitious knowledge do teachers need to teach students in this sequence of learning?	What real life examples can be applied to this sequence of learning to development of our students thinking, encouraging them to see the inequalities around them and 'do something about them!'
<p>Students own knowledge and understanding of sport</p> <ul style="list-style-type: none"> - students prior sporting experience, through playing or spectating or teaching, may have developed some level of knowledge in aspects of topics covered in this unit. <p>KS4 Curriculum</p> <ul style="list-style-type: none"> - Students will have some understanding of biomechanics from Science lessons <p>KS3 Curriculum</p> <ul style="list-style-type: none"> - Regularly performed a wide range of sports and will have knowledge of the individual skills needed for those sports. They will be able to identify them and will have understanding on how they are performed. - Boys and Girls all do the same sports on the curriculum to challenge stereotypes and raise awareness of opportunities for 	<p>This topic will develop learners' knowledge and understanding of biomechanical principles, including defining and applying Newton's Laws including the factors affecting air resistance and how this knowledge is applied to sports performance.</p> <p>Newton's laws of motion:</p> <ul style="list-style-type: none"> • Newton's first law: inertia • Newton's second law: acceleration • Newton's third law: reaction <p>The concept of force will be understood along with being able to draw and understand free body diagrams, from arrange of sporting examples.</p> <p>Force:</p> <ul style="list-style-type: none"> • net force • balanced and unbalanced force • weight • reaction • friction • air resistance • factors affecting friction and air resistance and their manipulation in sporting performance • free body diagrams showing vertical and horizontal forces acting on a body at an instant in time and the resulting motion 	<p>Each week, a key theme will run through all PE lessons linked to real life examples. These will be linked to the particular learning outcome the students are on at the time and will be consistent across the department. The aim will be for students to develop their thinking, recognise the inequalities within sport (linked to the topic) and do something about them. In the 'teaching' lessons, students will be provided with a starter to challenge stereotypes in sport and then an activity linked to heading being covered where they can 'do something about them.'</p> <ol style="list-style-type: none"> 1. Physical Activity Government Guidelines and Recommendations - students should have 60 minutes of moderate to high intensity exercise every day. Do they get this? How? 2. Barriers to Participation for Children and Teenagers 3. Solutions to the Barriers 4. Current Issues in Sport/Sport in the News - Linked to the impact of PE on Mental, Physical or Social Health 5. Physical Benefits of Sport and PE on the Body 6. Social Benefits of Sport and PE on the Body 7. ME in PE – Couch to 5km and Meden Park Run Challenge – Students are introduced to two free

<p>them to get involved e.g. Mansfield Rugby Club for Girls</p> <p>Extra Curricular/Clubs</p> <ul style="list-style-type: none"> - Students will have their own knowledge of the sports they regularly participate within and will be able to relate to these within their work - All students will be given a breadth of extra curricular opportunities to allow them to perform further in the key sports discussed in this topic - Students will have viewed sports that will be discussed and may understand how the body performs it - Ideally, students will compete in sport outside of school 	<ul style="list-style-type: none"> • calculations of force, momentum, acceleration and weight • definition of centre of mass • factors affecting the position of the centre of mass • the relationship between centre of mass and stability. <p>The knowledge gained from these principles, will allow students to develop their knowledge and understanding of the more technical aspects of performance and participation in physical activity and sport and evaluate their own and others' effectiveness and efficiency. Throughout this topic, students will apply the principles to a range of examples, comparing how the principles are effected from one example to the next.</p>	<p>activities that they can get involved in. Designed to improve physical, social and mental health within PE</p> <ol style="list-style-type: none"> 8. Popularity of Sport in the UK – what are the current trends for the most popular sport in the UK. Why are they the most popular sports? 9. Emerging/Growing Sports in the UK – which sports are new to the UK? How can we make them more popular? 10. National Governing Bodies – What is their role within a sport? What are the key NGB's for each sport? 11. Major Sporting Events – What are they? When and where do they occur? 12. Olympic Creed and Olympic Values 13. Current Issues in Sport/Sport in the News – Linked to new sports, growing sports or a major sporting event occurring 14. ME in PE – Couch to 5km and Meden Park Run Challenge – Students are introduced to two free activities that they can get involved in. Designed to improve physical, social and mental health within PE 15. Sporting Values – Excellence – Linked to Role Models and demonstrating excellence within a sport 16. Sporting Values - Tolerance and Respect 17. Sporting Values – Fair play 18. Sporting Values – Teamwork and Inclusion 19. Sporting Values - Citizenship 20. ME in PE – Couch to 5km and Meden Park Run Challenge – Students are introduced to two free activities that they can get involved in. Designed to improve physical, social and mental health within PE
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