

Meden School Curriculum Planning							
Subject	A Level	Year Group	13 (part 4)	Sequence No.	15-22	Topic	Projectile Motion

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> <p>- 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> <p>KS4 Curriculum</p> <p>- Students will have some understanding of biomechanics from Science lessons</p> <p>KS3 Curriculum</p> <p>- 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.</p> <p>- Boys and Girls all do the same sports on the curriculum to challenge stereotypes and raise awareness of opportunities for</p>	<p>Students will be able to define projectile motion whilst also being apply and understand factors affecting the horizontal distance travelled by a projectile, within a sporting context:</p> <ul style="list-style-type: none"> • height of release • speed of release • angle of release <p>Students will also be able to understand and apply free body diagrams, to specific sporting examples, showing the forces acting on a projectile once in flight:</p> <ul style="list-style-type: none"> • weight • air resistance <p>Next, students will be able to apply and understand resolution of forces acting on a projectile in flight using the parallelogram of forces, when applying it to sporting examples.</p> <p>Students will then look to analyse patterns of flight paths as a consequence of the relative size of air resistance and weight, within sporting context, for example:</p> <ul style="list-style-type: none"> • parabolic (symmetrical) flight path <ul style="list-style-type: none"> - shot put • non-parabolic (asymmetric) flight path <ul style="list-style-type: none"> - badminton shuttle 	<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 activities that they can get involved in. Designed to

<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 extracurricular 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 what natural effects may impact the skills they perform - Ideally, students will compete in sport outside of school 	<p>Students will then be able to apply the addition of lift to a projectile through the application of Bernoulli's principle, to a range of examples, including:</p> <ul style="list-style-type: none"> • angle of attack to create an upwards lift force on a projectile: <ul style="list-style-type: none"> - discus - javelin - ski jumper <p>Similarly, students will be able to apply the design of equipment to create a downwards lift force, to a range of examples, including:</p> <ul style="list-style-type: none"> • F1 racing cars • track cycling <p>Finally, students will apply the use of spin in sport to create a Magnus force, causing deviations to expected flight paths of sporting objects, including:</p> <ul style="list-style-type: none"> • imparting spin to a projectile through the application of an eccentric force • types of spin: <ul style="list-style-type: none"> - top spin, side spin and back spin in tennis and table tennis - side spin in football - hook and slice in golf. 	<p>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 21. Performance Enhancing Drugs – What are they and why are they taken?
--	--	--

		<p>22. Gamesmanship and Deviance</p> <p>23. Sportsmanship and Success of Teams</p> <p>24. Current Issues in Sport/ Sport in the News – linked to examples of athletes demonstrating sportsmanship, gamesmanship or taking performance enhancing drugs</p> <p>25. 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</p> <p>26. Money in Sport – Wage disparity between certain sports and genders. Amateur vs professional sport</p> <p>27. Technology in Sport – How has it advanced? Advantages and Disadvantages</p> <p>28. Gender in Sport – challenging stereotypes in sports as the player, official or manager</p> <p>29. Paralympics and Disabled Sport – examples of sports and accessibility</p> <p>30. Race and Equality in Sport – examples of campaigns within sports – Kick it out campaign and RESPECT</p> <p>31. LGBTQ - Pride Sport – their role in challenging LGBTQ phobia in sport</p> <p>32. 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</p> <p>33. Diet and Nutrition</p> <p>34. Skeletal and Muscular System</p> <p>35. Cardiovascular System</p> <p>36. Respiratory System</p> <p>37. Assessing Risk in Sport</p> <p>38. Sporting Injuries</p>
--	--	--

		<p>39. Current Issues in Sport/ Sporting News – linked to injuries, new science, diet, nutrition etc</p> <p>40. 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</p> <p>Students MUST reference four different sporting examples within each heading and will be penalised for sticking to one sport throughout. Teachers will guide students using a model example of a sport they are familiar with before exploring different real-life examples.</p>
--	--	--