

PEFORMANCE STUDIES (GCSE PE)

MOVEMENT ANALYSIS SCHEME OF LEARNING OVERVIEW

Rationale and Context of Unit:	Core curriculum content:	Tier 2 & Tier 3 vocabulary explicitly taught:
<p>The key stage three national curriculum has very little content relating to this scheme of learning, therefore students will have very little prior understanding.</p> <p>Firstly, frontal, transverse and longitudinal axes of rotation will be recognised by learners who will be able to apply these to examples from physical activities and sports. They will then know the three planes of movement and be able to give examples of these levers from different physical activities and sports. Finally, this short scheme of learning will end by students will developing their knowledge of the three classes of lever and will be able to use examples from physical activities and sport to show where these levers might operate to produce movement. They will also learn how mechanical advantage is provided by levers in movement.</p> <p>Teaching the content in this order enables students to develop their understanding of how the muscles and bones and joints work together to create powerful and efficient movements when performing sports skills. Students will go on to apply this understanding in the examination paper 1 and also largely in the analysing and evaluating performance coursework task.</p>	<p>Students will be able to:</p> <ul style="list-style-type: none"> - know the three classes of lever, the components, examples from the body and their use in physical activity and sport (first, second and third class lever systems) - Know the planes of movement in the body and their application to physical activity and sport (frontal, transverse and sagittal) - know the location of the axes of rotation in the body and their application to physical activity and sport (frontal, transverse and longitudinal) - Know and understand how to apply this to exam style questions 	<ul style="list-style-type: none"> • <i>Axis of rotation - A line around which the body can turn.</i> • <i>Frontal axis of rotation - Runs horizontally from the front to back of your body. A gymnast performing a cartwheel moves through this axis.</i> • <i>Frontal plane of movement - An imaginary line which divides the body from front to back vertically.</i> • <i>Levers - 1st Class: A lever in which the fulcrum is positioned between the load and the effort. 2nd Class: A class 2 lever has the load and the effort on the same side of the fulcrum, with the load nearer the fulcrum. 3rd Class: The effort is placed between the load and the fulcrum, and the effort must travel a shorter distance and be greater than the load.</i> • <i>Longitudinal axis of rotation - Passes vertically from the top to the bottom of your body. A 360 degree turn rotates through this axis.</i> • <i>Mechanical advantage - 1st and 2nd class levers provide mechanical advantage, this means that a larger load can be moved with a smaller amount of effort.</i> • <i>Sagittal plane of movement - An imaginary line which divides the body vertically into left and right sides.</i> • <i>Transverse axis of rotation - Passes horizontally from left to right. A somersault passes through this plane</i> • <i>Transverse plane of movement - An imaginary line which divides the body horizontally from front to back.</i>

Challenge and Support:	Worldwide learning/ links to 21st century:	Cultural capital/ Industry/ Enrichment:
<p>This scheme of learning is ambitious for all students. Throughout each lesson the Emerging, Developing, Secure and Mastered criteria is aimed at the highest achievers to score level 9 grades at GCSE PE theory. Throughout the course, students are required to apply their understanding to sporting contexts and in each lesson, the Mastered task is application of knowledge to a sporting scenario and/or exam questions.</p> <p>Lessons contain regular and quick extension tasks to challenge more able students whilst students who may require support to access learning are provided with sentence starters and key words, which keeps motivation high.</p> <p>Throughout the lessons, the content is covered and assessed at a low stakes level through mini whiteboards and mass question/answer sessions whereby every student is required to answer. Tasks are short and concise to hold students attention and allows the teacher to ascertain knowledge and understanding. This supports students who may become overwhelmed with longer drawn out tasks, whilst more able students are supplemented with extension tasks.</p>	<p>Students will learn the complex ways in which the body moves during sporting actions. They will develop an appreciation for the complex analysis that takes place by coaches and performers in the 21st century.</p> <p>Students will also link lever systems to everyday life and appreciate how they make difficult tasks easier. They will know they lever systems they may use throughout their daily routine, which they may not have known before.</p>	<p>In a coaching or performance setting, students will need to be able to understand how the body moves on planes and rotates on axis. This will enable them to analyse theirs, and others, performance effectively. Health care professionals such as physiotherapists will also need to understand lever systems and how these produce movement.</p>
Historical, Social, Moral, Spiritual, Cultural context:	Cross curricular links/ literacy/numeracy:	Common misconceptions:
<p>Students will develop understanding of the human body differs between different people and cultures and this plays a pivotal role in the physical abilities of different body types to perform the range of complex movements in sport.</p>	<p>Students will develop their understanding of lever systems which is also curriculum content in physics and technology. Students will have to apply their understanding of the different levers and mechanical advantage to the human body.</p> <p>Students will regularly be asked to read aloud and share their ideas and thoughts in group discussions. In addition, students will complete extended writing pieces of work to apply their understanding to a sporting setting.</p>	<p>The names transverse and frontal are used for both planes and axis in this unit which can cause issues. Students will create models of the planes and axis to reinforce understanding. Drawing lever diagrams can also be confusing for students as they are required to know the correct order of each component and also the direction of the effort and load. The teacher will use a model created by the PE department to highlight the difference between the three levers.</p>

Assessment timeline:

For formative assessment purposes, every lesson is structured using Emerging, Developing, Secure and Mastered criteria. These guide the lesson content that gets progressively harder throughout the lesson. After each, a progress check takes place on mini whiteboards. This enables the teacher to ascertain learning and intervene if required for individuals or the class.

When setting tasks in lessons, the resources include WAGOLs to assist students in structuring their work. These WAGOLs include sentence starters and key words.

At the end of the scheme of learning, students will complete a revision lesson. This will be all whiteboard work covering the content of the scheme through questioning and answering. Students will complete a self-assessment sheet throughout the lesson to note down topic areas they need to develop before the end of unit assessment.

The final lesson of the unit will see students completing an end of unit assessment. The assessment will consist of exam style questions of various lengths and will last for 1 hour. The scores from this assessment is used to inform tracking alongside the practical data from students' performances in their three sports.

For students that significantly perform below their ALPs target grade, the teacher will complete a small number of coaching sessions before a re-test is completed to ensure that students do not fall behind in any topics.

Home learning

Lesson 1 – Students will memorise the levers, order of components and sporting examples for a low stakes test in lesson two.

Lesson 3 – Students will revise thoroughly for their end of unit assessment

Feedback

Lessons 1, 2 and 3 contain a detailed written 'apply it' task. The teacher will mark this piece of work and give next steps if understanding is not correct. For correct responses praise or an extension task may be given.

In lessons 1, 2 and 3, students will complete exam style questions and will mark their peers work in green pen using the mark scheme. They will provide a mark, what went well and even better if.

Students will complete an end of unit assessment for the final lesson of the scheme. The assessment will consist of exam style questions of various lengths and will last for 1 hour. The teacher will give a percentage score and level (based on the previous exam cohort national averages) along with highly specific and individualised feedback 4 for each child. This will contain next steps for students to act upon and address either knowledge or exam technique.

Length of unit (duration indicated in hours)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Unit:																													

Note – Above is in hours as one lesson is two hours long. There 4 x 1hour and 1 x 2 hour lessons in this scheme of learning