

<u>A learner in Year 10 will know/ have studied:</u> The Pearson Edexcel Level 1/Level 2 GCSE (9–1) in Physical Education consists of two externally-examined papers and two non-examined assessment components. Components 3 and 4 (non- examined) may be assessed at any point during the course, with marks submitted by the centre prior to moderation. The GCSE in Physical Education will equip students with the knowledge, understanding, skills and values they need to be able to develop and maintain their performance in physical activities. Students will also gain understanding of how physical activities benefit health, fitness and well-being.				<u>A learner in Year 10 will be able to:</u> The aim of this qualification is to enable students to: ● develop theoretical knowledge and understanding of the factors that underpin physical activity and sport and use this knowledge and understanding to improve performance ● understand how the physiological and psychological state affects performance in physical activity and sport ● perform effectively in different physical activities by developing skills and techniques and selecting and using tactics, strategies and/or compositional ideas ● develop their ability to analyse and evaluate to improve performance in physical activity and sport ● Students will develop their theoretical knowledge and understanding of applied anatomy and physiology, movement analysis and physical training so that they can use this knowledge to analyse and evaluate performance and devise informed strategies for improving/optimising their own practical performance. Questions in the examination paper may be contextualised by reference to any of the activities in the activity list (as well as gym/fitness activities) Component 3: Practical Performance – assessment will begin. Component 4 Personal Exercise Programme (PEP) will begin.			
Term 1: Topic 1, Applied anatomy and physiology				Term 2: Topic 2 & 3, Movement analysis & Physical training		Term: Topic 3, Physical training and Topic 4, The use of data	
1.1 The structure and functions of the musculoskeletal system 1.2 The structure and functions of the cardiorespiratory system		1.3 Anaerobic and aerobic exercise 1.4 The short- and long-term effects of exercise		2.1 Lever systems, examples of their use in activity and the mechanical advantage they provide in movement 2.2 Planes and axes of movement		3.1 The relationship between health and fitness and the role that exercise plays in both 3.2 The components of fitness, benefits for sport and how fitness is measured and improved	
				3.3 The principles of training and their application to personal exercise/ training programmes 3.4 The long-term effects of exercise		3.5 How to optimise training and prevent injury 3.6 Effective use of warm up and cool down 4.1 Use of data	
	Term 1: Topic 1, Applied anatomy and physiology			Term 2: Topic 2, Movement analysis			Term 3: Topic 3, Physical training and Topic 4, The use of data

	<p><u>Knowledge:</u></p> <p>1.1 The functions of the skeleton applied to performance in physical activities and sports: protection of vital organs, muscle attachment, joints for movement, platelets, red and white blood cell production, storage of calcium and phosphorus</p> <p>1.1.2 Classification of bones: long (leverage), short (weight bearing), flat (protection, broad surface for muscle attachment), irregular (protection and muscle attachment)</p> <p>1.1.3 Structure of skeletal system. Regions of the vertebral column (cervical, thoracic, lumbar, sacrum, coccyx)</p> <p>1.1.4 Classification of joints: pivot (neck – atlas and axis), hinge (elbow, knee and ankle), ball and socket (hip and shoulder), condyloid (wrist), and their impact on the range of possible movements</p> <p>1.1.5 Movement possibilities at joints; flexion, extension, adduction, abduction, rotation, circumduction, plantar-flexion, dorsi-flexion and examples of physical activities.</p> <p>1.1.6 The role of ligaments and tendons</p> <p>1.1.7 Classification and characteristics of muscle types: voluntary muscles of the skeletal system, involuntary muscles in blood vessels, cardiac muscle forming the heart, and their roles when participating in physical activity and sport</p> <p>1.1.8 Location, role & specific function of each muscle (deltoid, biceps, triceps, pectoralis major, latissimus dorsi, external obliques, hip flexors, gluteus maximus, quadriceps, hamstrings, gastrocnemius and tibialis anterior)</p> <p>1.1.9 Antagonistic pairs</p> <p>1.1.10 Characteristics of fast and slow twitch muscle fibre types (type I, type IIa and type IIx) and how this impacts on their use in physical activities</p> <p>1.2.1 Functions of the cardiovascular system applied to performance in physical activities:</p> <p>1.2.2 Structure of the cardiovascular system</p> <p>1.2.3 Structure of arteries, capillaries and veins and how this relates to function and importance during physical activity and sport in terms of blood pressure, oxygenated, deoxygenated blood and changes due to physical exercise</p>	<p><u>Knowledge:</u></p> <p>2.1.1 First, second and third class levers and their use in physical activity and sport</p> <p>2.1.2 Mechanical advantage and disadvantage (in relation to loads, efforts and range of movement) of the body's lever systems and the impact on sporting performance</p> <p>2.2 Planes and axes of movement</p> <p>2.2.1 Movement patterns using body planes and axes: sagittal, frontal and transverse plane and frontal, sagittal, vertical axes applied to physical activities and sporting actions</p> <p>2.2.2 Movement in the sagittal plane about the frontal axis when performing front and back tucked or piked somersaults</p> <p>2.2.3 Movement in the frontal plane about the sagittal axis when performing cartwheels</p> <p>2.2.4 Movement in the transverse plane about the vertical axis when performing a full twist jump in trampolining</p> <p>3.2.1 Components of fitness and the relative importance of these components in physical activity and sport: cardiovascular fitness (aerobic endurance), strength, muscular endurance, flexibility, body composition, agility, balance, coordination, power, reaction time, and speed.</p> <p>3.2.2 Fitness tests: the value of fitness testing, the purpose of specific fitness tests, the test protocols, the selection of the appropriate fitness test for components of fitness and the rationale for selection</p> <p>3.2.3 Collection and interpretation of data from fitness test results and analysis and evaluation of these against normative data tables</p> <p>3.2.4 Fitness tests for specific components of fitness: cardiovascular fitness – Cooper 12 minute tests (run, swim), Harvard Step Test, agility – Illinois agility run test, strength – grip dynamometer, muscular endurance – oneminute sit-up, one-minute press-up, speed – 30m sprint, power – vertical jump, flexibility – sit and reach</p> <p>3.2.5 How fitness is improved</p> <p>3.3.1 Planning training using the principles of training: individual needs, specificity, progressive overload, FITT (frequency, intensity, time, type), overtraining, reversibility, thresholds of training (aerobic target zone: 60–80% and anaerobic target zone: 80%–90% calculated using simplified</p>	<p><u>Knowledge:</u></p> <p>3.5.1 The use of a PARQ to assess personal readiness for training and recommendations for amendment to training based on PARQ</p> <p>3.5.2 Injury prevention through: correct application of the principles of training to avoid overuse injuries; correct application and adherence to the rules of an activity during play/participation; use of appropriate protective clothing and equipment; checking of equipment and facilities before use, all as applied to a range of physical activities and sports</p> <p>3.5.3 Injuries that can occur in physical activity and sport: concussion, fractures, dislocation, sprain, torn cartilage and soft tissue injury (strain, tennis elbow, golfers elbow, abrasions)</p> <p>3.5.4 RICE (rest, ice, compression, elevation)</p> <p>3.5.5 Performance-enhancing drugs (PEDs) and their positive and negative effects on sporting performance and performer lifestyle, including anabolic steroids, beta blockers, diuretics, narcotic analgesics, peptide hormones (erythropoietin (EPO), growth hormones (GH)), stimulants, blood doping</p> <p>warm up and cool down</p> <p>3.6.1 The purpose and importance of warm-ups and cool downs to effective training sessions and physical activity and sport</p> <p>3.6.2 Phases of a warm-up and their significance in preparation for physical activity and sport</p> <p>3.6.3 Activities included in warm-ups and cool downs</p> <p>4.1.1 Develop knowledge and understanding of data analysis in relation to key areas of physical activity and sport</p> <p>4.1.2 Demonstrate an understanding of how data is collected in fitness, physical and sport activities – using both qualitative and quantitative methods</p> <p>4.1.3 Present data (including tables and graphs)</p> <p>4.1.4 Interpret data accurately</p>
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Fitness classes for specific components of fitness, physical activity and sport (body pump, aerobics, Pilates, yoga, spinning). The advantages and disadvantages of different training methods</p> <p>3.4.1 Long-term effects of aerobic and anaerobic training and exercise and the benefits to the muscular-skeletal and cardio-respiratory systems and performance</p> <p>3.4.2 Long-term training effects: able to train for longer and more intensely</p> <p>3.4.3 Long-term training effects and benefits: for performance of the muscular-skeletal system: increased bone density, increased strength of ligaments and tendons, muscle hypertrophy, the importance of rest for adaptations to take place, and time to recover before the next training session</p> <p>3.4.4 Long-term training effects and benefits: for performance of the cardio-respiratory system.</p> <p><u>Skills:</u> In this topic students will develop knowledge and understanding of the basic principles of movement and their effect on performance in physical activity and sport. They will develop knowledge and understanding of the principles of training and different training methods in order to plan, carry out, monitor and evaluate personal exercise and training programmes</p> <p><u>Formative Assessment:</u> The assessment evidence will be gathered in a variety of ways through presentations, Rapid recall testing, written reports or essays, end of unit tests.</p>	<p>4.1.5 Analyse and evaluate statistical data from their own results and interpret against normative data in physical activity and sport</p> <p><u>Skills:</u> In this topic students will develop knowledge and understanding of the principles of training and different training methods in order to plan, carry out, monitor and evaluate personal exercise and training programmes. Students will develop their theoretical knowledge and understanding of applied anatomy and physiology, movement analysis and physical training so that they can use this knowledge to analyse and evaluate performance and devise informed strategies for improving/optimising their own practical performance. Questions in the examination paper may be contextualised by reference to any of the activities in the activity list (as well as gym/fitness activities) in Component 3: Practical Performance. In this topic students will develop knowledge and understanding of the basic principles of movement and their effect on performance in physical activity and sport through the following content. In this topic students will develop knowledge and understanding of data analysis in relation to key areas of physical activity and sport, through this content and linking it to other topics.</p> <p><u>Formative Assessment:</u> The assessment evidence will be gathered in a variety of ways through presentations, Rapid recall testing, written reports or essays, end of unit tests.</p> <p><u>End Assessment:</u> The assessment is 1 hours and 45 minutes. ● The assessment is out of 90 marks.</p>
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	<p><u>Skills:</u> In this topic students will develop knowledge and understanding of the key body systems and how they impact on health, fitness and performance in physical activity and sport.</p> <p><u>Formative Assessment:</u> The assessment evidence will be gathered in a variety of ways through presentations, Rapid recall testing, written reports or essays, end of unit tests.</p> <p><u>End Assessment:</u> The assessment is 1hr.</p> <ul style="list-style-type: none"> • The assessment is out of 60 marks. • Students must answer all questions. • The assessment consists of multiple-choice, short-answer, and extended writing questions. • For the nine-mark extended writing question, students will be expected to draw on their knowledge and understanding in relation to the question, apply their knowledge and understanding and come to a reasoned judgement in order to answer the specific requirement of the question. • Calculators can be used in the examination. <p><u>End point:</u> Students can demonstrate knowledge and understanding of the factors that underpin performance and involvement in physical activity and sport. They can apply knowledge and understanding of the factors that underpin performance and involvement in physical activity and sport Analyse and evaluate the factors that underpin performance and involvement in physical activity and sport</p>	<p><u>Component 3:</u> Practical Performance – assessment will begin.</p> <p><u>Component 4:</u> Personal Exercise Programme (PEP) will begin.</p> <p><u>End Assessment:</u> The assessment is 1.30 hour.</p> <ul style="list-style-type: none"> • The assessment is out of 80 marks. • Students must answer all questions. • The assessment consists of multiple-choice, short-answer, and extended writing questions. • For the nine-mark extended writing question, students will be expected to draw on their knowledge and understanding in relation to the question, apply their knowledge and understanding and come to a reasoned judgement in order to answer the specific requirement of the question. • Calculators can be used in the examination. <p><u>End point:</u> Students can demonstrate knowledge and understanding of the factors that underpin performance and involvement in physical activity and sport. They can apply knowledge and understanding of the factors that underpin performance and involvement in physical activity and sport Analyse and evaluate the factors that underpin performance and involvement in physical activity and sport</p>	<ul style="list-style-type: none"> • Students must answer all questions. • The assessment consists of multiple-choice, short-answer, and extended writing questions. • For the nine-mark extended writing questions, students will be expected to draw on their knowledge and understanding in relation to the question, apply their knowledge and understanding and come to a reasoned judgement in order to answer the specific requirement of the question. • Calculators can be used in the examination. <p><u>Component 3:</u> Practical Performance – assessment will begin.</p> <p><u>Component 4:</u> Personal Exercise Programme (PEP) will begin.</p> <p><u>End point:</u> Students can demonstrate knowledge and understanding of the factors that underpin performance and involvement in physical activity and sport. They can apply knowledge and understanding of the factors that underpin performance and involvement in physical activity and sport Analyse and evaluate the factors that underpin performance and involvement in physical activity and sport. Demonstrate and apply relevant skills and techniques in physical activity and sport and Analyse and evaluate performance</p>
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- Consider justification for sequencing of learning and spacing/interleaving and revisiting knowledge (ABCDEF etc)
- Consider cross-curricular links. What are other subjects doing – any cross over?

EIF: Overview of research and key principles - Quality of Education

- *Construct a curriculum that is ambitious for all, coherently planning and sequenced to give learners (particularly the most disadvantaged) the knowledge and skills needed to be successful.*
- *Teaching is designed to help learners to remember in the long term the content they have been taught and to integrate new knowledge into larger concepts.*
- *Assessment is used to help learners embed and use knowledge fluently, check understanding and inform further lesson planning or remediation, without unnecessary burdens for staff or learners.*

Curriculum (i)

- 'Knowledge-engaged' school – knowledge underpins and enables the application of skills and leaders desire that both are intertwined and developed. (pg. 6)

Effective teaching (ii)

Achievement is likely to be maximised when teachers actively present material and structure it by:

- Providing overviews and/or reviews of objectives (pg. 12)
- Outlining the content to be covered and signalling transitions between different parts of lesson (pg. 12)
- Calling attention to main ideas (pg. 12)
- Reviewing main ideas (pg. 12)

Effective teaching through: (Pg. 13)

- **Effective questioning** – teachers provide substantive feedback to pupils, resulting from pupils' questions or answer to teachers' question. Correct answers should be acknowledged positively and appropriately. Partially correct answers should be prompted before moving on. If an answer is wrong it should be pointed out and ascertained how they got it wrong. Teachers should encourage responses from girls and shy pupils who may be less assertive. Teachers should use product (single response) questions and process questions (calling for explanation from pupils). Pupils should be encouraged to ask questions. (pg. 13)
- **Differentiation** – focus group is the best practice, not range of resources or activities re: workload (pg. 14)
- **Routines** - stimulating learning environments, clear goals (so what?) (pg. 15)
- **Modelling** - language and introducing new words in context/WAGOLL (pg. 15)
- **Group activity and pair** – must be structured and prepared. Explicit guidelines must be given and roles should be assigned. (pgs. 13 & 14)

Memory and Learning (iii)

- **Spaced or distributed practice** - where knowledge is rehearsed for short periods over a longer period of time is MORE effective than massed practice when we study more intensively for a shorter period of time. Good practice is to block learning and repeat practice over time as this leads to greater long-term retention. (AAABBBCCC) (pg. 16)
- **Interleaving** - mixes the practice of A, B and C e.g. (ABCABCABC). There is growing evidence that this can improve retention, and research in maths is particularly promising. (pg. 16)
- **Retrieval practice** – involves recalling something you have learned in the past and is far more effective than re-reading because it strengthens memory. It needs to occur a reasonable time after the topic has been taught and should take the form of testing knowledge either by the teacher or through pupil self-testing and should be checked for accuracy but not necessarily recorded re: workload. (pg. 16)
- **Elaboration** – describing and explaining something learned to others in some detail. Contextualising learning and making connections among ideas and connecting to one's memory and experiences. (pg. 16)
- **Dual coding** – representing information both visually and verbally enhances learning and retrieval from memory. (pg. 16 & 17)
- **Cognitive load theory (CLT)** – presenting learners with information in small chunks and embedding learning/memory before moving on to something else in order to avoid overloading. (schemata) (pg. 17)

Assessment (iv)

Assessment, if appropriately employed has a positive impact on learning and teaching. Pupils must understand the aim of their learning, where they are and how they can achieve the aim. In order for assessment to have a positive impact, two conditions need to be met:

- Pupils are given advice on how to improve (pg. 18)
- Pupils act on the advice by using materials provided by the teacher, going to the teacher for help (focus group), or working with other pupils. (pg. 18)
- Use of low stakes testing can contribute to learning in valuable ways. Working to recall knowledge that has previously been learned has a positive mental impact on learners. Learners who do a test shortly after studying material do better on a final test than those that don't – even if no feedback is given.
- Teachers should use assessment to plan/adapt lessons to tackle gaps in knowledge and re-teach where problems persist.
- Assessments at the start of learning is important, to know the level that pupils are starting from.