Physical Education Progression Guide – Moving from GCSE to GCE

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Introduction – why should I do GCSE and A level PE with Pearson?

The Edexcel GCSE Physical Education specification is recognised as a qualification which provides an excellent foundation for smooth transition on to the Edexcel GCE Physical Education qualifications at AS and A level. The GCSE PE structure and content contain many features in both practical and theory work which centres and learners will find invaluable when progressing through the AS or A level specifications.

This guide is designed to help centres understand the progression opportunities between Edexcel's GCSE PE (2016) and Edexcel's GCE PE (2016) specifications, i.e. the advantages to the centre and learners of moving from Edexcel GCSE PE to Edexcel GCE PE. It is organised into the following key areas for progression:

Common features in our GCSE and A level specification:

1. **Common assessment structure for GCSE and A level**; familiar paper structures will allow learners to gain confidence in what they are being assessed on and will provide them with a structure to help prepare for exams. There are two papers at GCSE – Science and Social, and two papers at A level – Science and Social.
2. **Common command words in assessments**; both GCSE and A level have clear and consistent use of command words.
3. **Common terminology and topics within the theoretical content**; both GCSE and A level have common terminology such as the components of fitness so learners are able to build on their knowledge and understanding. There is common topic areas between GCSE and A level. For example both qualifications have Anatomy and Physiology, Sport Psychology, Movement Analysis.
4. **Common processes and paperwork**; both GCSE and A level have similar structures and administrative requirements making it ideal for centres to communicate with the awarding organisation.
5. **Similar resources and support available for GCSE and A level**; the subject advisor and teaching and learning resources makes the qualification a well-supported qualification which provides confidence and reassurance to centres.

Assessment structure

The table below shows the similarities in the design of the qualifications, what learners need to learn, and complete for their assessment. The courses have been developed so that there is a natural progression from GCSE to A level. The content learnt and skills developed at GCSE will provide learners with the knowledge, understanding and skills of analysis and evaluation needed in order to successfully engage with A level. Familiar content will allow learners to gain confidence in their abilities and provides the required stepping stone to look into these theoretical areas in more depth.

GCSE PE (full course)	GCE PE

• Paper 1 – 1 hour 45 minutes (36%)
• Covers three sections from component 1 content:
  ○ Applied anatomy and physiology
  ○ Movement analysis
  ○ Physical training
• Use of data is embedded
	• AS Paper 1 – 1 hour 45 minutes (40%)
	• A Level Paper 1 – 2 hours 30 minutes (40%)
	• Covers three sections from component 1 content:
	  ○ Applied anatomy and physiology
	  ○ Applied movement analysis
	  ○ Exercise physiology
	• Use of data is embedded

• Paper 2 – 1 hour 15 minutes (24%)
• Covers three sections from component 2 content:
  ○ Health, fitness and well-being
  ○ Sport psychology
  ○ Socio-cultural influences
• Use of data is embedded
	• AS Paper 2 – 1 hour 15 minutes (30%)
	• A Level Paper 2 – 2 hours (30%)
	• Covers three sections from component 2 content:
	  ○ Skills acquisition
	  ○ Sports psychology
	  ○ Sport and society
	• Use of data is embedded

• Practical performance (component 3 - 30%)
  ○ Skills performed as a player/performer in three practical activities (individual and team):
  ▪ Skills in isolation
  ▪ Conditioned practice/fully competitive situations
	• Practical performance (component 3 - 15%)
	  ○ Skills performed as a player/performer **or** coach in one practical activity:
	  ▪ Conditioned practices
	  ▪ Fully competitive situations

• Personal exercise programme (component 4 - 10%)
  ○ Aim and panning analysis (linked to performance)
  ○ Carrying out and monitoring the PEP
  ○ Evaluation of the PEP
	• Performance analysis and performance development programme (component 4 - 15%)
	  ○ Performance Analysis
	  ○ Personal Development Programme (PDP) (A level only)

Common features within the theoretical content

Component 1 – Scientific principles of PE

Topic areas:

GCSE PE (full course)	GCE PE
• Applied anatomy and physiology • Movement analysis • Physical training • Use of data	• Applied anatomy and physiology • Applied movement analysis • Exercise physiology • Use of data

Content:

The new Component 1 content at GCE covers the muscular skeletal and cardio-respiratory systems, building on the content covered at GCSE. For example, only one additional region/joint of the body is required at GCE compared to GCSE (the core/trunk), no additional knowledge is required in relation to the names of bones of the skeleton. Some additional muscles are required (trapezium psoas major, rectus abdominus) and some additional ranges of movement to extend the knowledge gained at GCSE, i.e. horizontal flexion and extension, eversion inversion and supination pronation. Thus those learners who have studied Edexcel GCSE PE will have already covered a large amount of the relevant content for this first topic at GCE. Clearly there will be new content, for example, Newton's Three Laws of Motion but this is limited, thus Edexcel GCSE PE learners will already have covered a large proportion of relevant GCE content.

Further similarities between the qualifications are shown in the table below:

GCSE PE (full course)	GCE PE content
1.2 Cardio-respiratory system and cardiovascular systems Some new content re pressure gradients/partial pressure and additional terminology to learn and understand e.g. bradycardia AV and SA nodes, but much familiar content (shown right) on which to build.	**1.2 The structure and functions of the cardio-respiratory system** • The structure and function of the respiratory system. • Mechanical process of ventilation (inspiration and expiration). • Tidal volume, vital capacity. • Components and structure of the cardio vascular system. • Cardiac cycle, venous return, vascular shunting, heart rates, (resting, working, maximum, heart rate and recovery), stroke volume, cardiac output. • The cardiorespiratory and cardiovascular systems and how they respond acutely, both structurally and functionally, to the stress of warming up and immediate physical or sporting activity.
1.10 Fibre types and section **1.4/3.4 The short and long-term effects of exercise** GCSE content provides an introduction to the neuromuscular system but the majority of the topic area will be new content at GCE.	**1.3 Neuro-muscular system** • The characteristics and anatomical make-up of the different fibre types: slow twitch (type I), fast oxidative glycolytic (IIa) and fast glycolytic (type IIx, formerly known as IIb). • Understanding of how the neuro-muscular system responds acutely, both structurally and functionally to the stress of warming up and immediate physical or sporting activity. • The chronic adaptations of the cardiorespiratory, cardiovascular, muscular-skeletal and neuro-muscular systems to training.
1.3 Anaerobic and aerobic exercise This topic provides an introduction to the work that will be covered at GCE.	**1.4 Energy systems: fatigue and recovery**

GCSE PE (full course)	GCE PE content
(Component 2) 1.3 Energy use, diet, nutrition and hydration This topic provides an introduction to dietary manipulation, optimal weight and hydration.	**2.1 Diet and nutrition and their effect on physical activity and performance** • Optimal weight for performance to include energy balance, energy intake and expenditure. • Strategies for ensuring optimal food, fuel and fluid intake for pre-, during and post-physical activity: carbohydrate loading, two-hour window of opportunity, protein intake, pre-, during and post-event hydration.
3.2 The components of fitness, benefits for sport and how fitness is measured and improved Whilst different fitness tests are covered at A level compared to GCSE the use and value of fitness testing will not be a new concept. Much familiar content in relation to use of data, components of fitness, principles and methods of training, target heart rates. • 3.3 The principles of training and their application to personal exercise/ training programmes	**2.2 Preparation and training methods in relation to maintaining and improving physical activity and performance** • Interpret, calculate and present data (tables and graphs) based on fitness test results. • Components of fitness: localised muscular endurance, vO2 max, anaerobic capacity, maximal strength, strength, power, speed, agility, coordination, reaction time, balance, flexibility, exercise economy, maximal and submaximal aerobic fitness. • Principles of training: individual needs, specificity, progressive overload, Frequency Intensity Time and Type (FITT), overtraining, reversibility. • Target heart rate: understanding and use of Karvonen's theory. • Methods of training and their appropriateness for different activities: interval, circuits, cross, continuous, fartlek, flexibility (static, ballistic and proprioceptive neuromuscular facilitation (PNF)), weights (free weights and machines), resistance (including pulleys, parachutes), assisted (including bungees, downhill), plyometrics, speed agility quickness (SAQ) and functional stability. • Advantages and disadvantages of each method of training.

GCSE PE (full course)	GCE PE content
3.5 How to optimise training and prevent injury Whilst GCSE does not differentiate between acute and chronic injury or contemporary methods of rehabilitation, many of the injuries covered at GCSE are repeated at A Level. Knowledge of injury prevention, risk reduction measures and RICE will all be required at GCE.	**2.3 Injury prevention and the rehabilitation of injury** • Knowledge and understanding of common sporting injuries. • Acute injuries: cruciate ligament injury; soft tissue damage, sprain, Achilles tendon injury, fracture, dislocation. • Overuse injuries: strain, shin splints (periostitis), tendonitis (including tennis elbow and golfer's elbow), stress fractures. • Prevention of injuries. • Conditioning, muscle balance, technique, protective equipment, managing risks. • RICE – Rest, Ice, Compression, Elevation.

Component 2 – Psychological and Social Principles of Physical Education

Topic areas:

GCSE PE (full course)	GCE PE
• Health, fitness and wellbeing • Sport psychology • Socio-cultural influences • Use of data	• Skill acquisition • Sport psychology • Sport and society • Use of data

Content:

The new Component 2 content at GCE also develops the skills and subject content learnt at GCSE, for example the classification of skills, practice methods and guidance.

Further areas of overlap between the qualifications are shown in the table below:

GCSE PE (full course)	GCE PE content
(Component 2) 2.1 Classification of skills The concept of skill classification is introduced at GCSE and then developed further at A Level, expanding on the classifications covered.	**3.2 The classification and transfer of skills** • Knowledge and understanding of skill classifications. • Classification continuums as gross/fine, internally paced/externally paced, discrete/serial/continuous. The open/closed continuum in relation to the sporting environment, decision making and practice structure.
(Component 2) 2.1 Classification of skills **2.1.3 Application of knowledge of practice** **2.1.2 Practice structures: massed, distributed, fixed and variable** **2.4 Mental preparation for performance**	**3.4 Practices** • Knowledge and understanding of practice methods and structure as a coach and for a performer and their impact on performance. • Practice structure as in massed, distributed, fixed and variable. Measuring effectiveness – quality and quantity. • The role and effectiveness of mental practice and how it can enhance performance.

GCSE PE (full course)	GCE PE content
(Component 2) 2.3 Guidance and feedback on performance • Types of guidance to optimise performance: visual, verbal, manual and mechanical. • Advantages and disadvantages of each type of guidance.	**3.5 Guidance** • The types, purpose and effectiveness of guidance methods: visual, verbal, manual and mechanical. • Visual guidance in the form of demonstration and visual materials. • Verbal guidance in the form of knowledge of direct, indirect and prompting. • Manual and mechanical guidance in the form of physical support and aids, restrictions and forced responses.
(Component 2) 2.3 Guidance and feedback on performance • Types of feedback to optimise performance: intrinsic, extrinsic, concurrent and terminal.	**3.6 Feedback** • The types, purposes and effectiveness of feedback as motivation, reinforcement and detection and correction of errors. • Types of feedback as in positive/negative, knowledge of performance, knowledge of results, concurrent/terminal, intrinsic/extrinsic.
(Component 2) 2.2 The use of goal setting and SMART targets • Principles of SMART targets (specific, measurable, achievable, realistic, time-bound). • The use of goal setting to improve and/or optimise performance. • Setting and reviewing targets to improve and/or optimise performance.	**4.3 Goal setting** • Knowledge and understanding of SMART(ER) targets (specific, measurable, achievable, realistic, time-bound, evaluated and recorded). • The importance and relevance of goal setting and the different types used to optimise performance: subjective, objective, outcome/product, performance, process, realistic and aspirational goals; short-, medium- and long-term goals.

GCSE PE (full course)	GCE PE content
(Component 2) 3.2 Commercialisation of physical activity and sport **3.2.1 The relationship between commercialisation, the media and physical activity and sport** **3.2.2 The advantages and disadvantages of commercialisation and the media for: the sponsor, the sport, the player/performer, the spectator**	**5.3 Commercialisation of sport** • Knowledge and understanding of the commercialisation of sport and its impact on society. • An understanding of the concept of commercialisation and commodities. • The power shift from the governing bodies to the media, the concept of the 'golden triangle'. Sports stars as global stars. **5.5 The relationship between sport and the media** • The impact of technology on the viewing experience. • The advantages and disadvantages of the development of specific sports media packages and the growth of 'pay per view'.
(Component 2) 3.3 Ethical and socio-cultural issues in physical activity and sport • The different types of sporting behaviour: sportsmanship, gamesmanship, and the reasons for, and consequences of, deviance at elite level.	**5.4 Ethics and deviance in sport** • Knowledge and understanding of ethics and deviance in sport. The pressures on sports performers and spectators to behave in a deviant way. • The impact of commercialisation on the sportsmanship ethic and the growth of gamesmanship in the UK. • Deviance in sport: use of performance enhancing drugs; blood doping and transfusions; bribery; 'bungs'; match fixing, betting syndicates and other contemporary forms of deviance.
(Component 2) 3.1 Engagement patterns of different social groups in physical activity and sport • Participation rates in physical activity and sports and the impact on participation rates considering the following personal factors: gender, age, socio-economic group, ethnicity, disability.	**5.7 Participation and health of the nation** • Knowledge and understanding of barriers to participation, the benefits of mass participation and the impact of wearable technology on participation. • Participation trends in the UK in the 21st century.

Common features within the NEA

Not only is there considerable overlap with content and skills in relation to the theoretical content, this synergy between the qualifications has also been developed across the non-examined assessment (NEA). For example:

Component 3 - Practical performance

- The physical activity list is common across all levels (GCSE, AS and A level) allowing learners to continue to develop their performance in an activity used at GCSE.
- At AS and A level only this performance can still be in the role of player/performer, or if the learners prefers the role of the coach.
- Learners will be familiar with the assessment criteria as similar criteria will be used to assess GCSE and A level, although A level criteria will extend beyond that at GCSE i.e. a 'good' performance in the formal/competitive situation at GCSE (level 4) would equate to level 3 at GCE. In order to achieve level 4 at GCE, performances would need to be 'very good' to reflect the increased level of performance as a result of maturation and further opportunity to develop relevant skills.

Component 4 - Performance analysis and performance development programme

- For AS and A level learners are required to carry out an analysis of performance (as either a player or coach). They are required to complete:

    - Aim and planning analysis
    - Carrying out and monitoring their performance analysis
    - Evaluation of data and the programme.

  The skills developed at GCSE will be further developed through this aspect of the assessment at AS/A level. There is considerable overlap between the PEP requirements at GCSE and the performance analysis. For example, the physiological aspect of the performance analysis is based on the fitness requirements of their activity, the learner's fitness, and fitness test results; all areas which are considered as part of the PEP analysis at GCSE.

  The skills that learners develop at GCSE can be used to assist with the AS and A level. As seen, at GCSE there is a requirement to analyse data; at AS and A level this skill is developed further within the coursework task where technical and tactical aspects of performance are analysed. Whilst there is overlap between the levels there is also sufficient difference between the tasks to remain interesting and challenging.

- At A level learners also have to complete a performance development programme (PDP). This involves (if taking on the role of player/performer) planning a training method to optimise performance (based on their performance analysis), evaluating the outcomes of their programme. Therefore the PEP at GCSE (aim and planning analysis, carrying out and monitoring their PEP, evaluation of data and programme) will also form a good basis on which to build for this final part of the A level.

Assessment of skills and techniques

The assessment objectives shown below are identical for GCE and GCSE, therefore the skills developed by learners will be transferrable from GCSE to GCE. The most significant difference is an increase in the need to analyse and evaluate at A level compared to GCSE within the written assessment, although this requirement is non-board specific.

Assessment objective	GCE PE	GCSE PE (full course)
AO1 Demonstrate knowledge and understanding of the factors that underpin performance and involvement in physical activity and sport	23%	25%
AO2 Apply knowledge and understanding of the factors that underpin performance and involvement in physical activity and sport	23%	20%
AO3 Analyse and evaluate the factors that underpin performance and involvement in physical activity and sport	24%	15%
AO4 • Demonstrate and apply relevant skills and techniques in physical activity and sport • Analyse and evaluate performance	30%	40%

Command words used in the written assessment will also overlap between GCSE and GCE. Although some new command words have been introduced at A level the majority will be familiar to GCSE learners and will test the same skills as those at GCSE (for example describe, discuss, explain, evaluate); and therefore methods to address question demands at GCSE will transfer to GCE meaning that learners will not need to learn and apply a new 'assessment language' to fully access all available marks on an examination paper.

Processes and paperwork

Finally a benefit to the centre of maintaining awarding organisation from one level of qualification to the next revolves around paperwork and processing. By maintaining the awarding organisation for both qualifications centres will be familiar with the required processes reducing the risk to learners and centres. Other benefits include:

- Same look and feel to the specification to make navigation through content more straight-forward
- Same structure to question paper design so more familiar to learners
- Common command words to increase clarity of assessment demands
- Similar practical performance assessment method for GCSE and A level (A level criteria overlapping and extending from GCSE levels)
- One awarding organisation to deal with in relation to entries.

Resources and support

Teaching and learning materials for GCSE and A level available from the Pearson website:

A level: http://qualifications.pearson.com/en/qualifications/edexcel-a-levels/physical-education-2016.html

GCSE: http://qualifications.pearson.com/en/qualifications/edexcel-gcses/physical-education-2016.html

Resources include:

- Course planners
- Schemes of work
- Subject guides
- Mapping documents
- Launch events
- Getting Ready to Teach events
- Dedicated subject support team
- Ask the Expert
- Exemplar material (practical and theoretical)
- Topic guides
- Pearson published resources
- Other endorsed resources