



Pearson

**Online magazine**  
designed to support  
the teaching of  
Pearson GCE PE

April 2018

## Inside

Quantitative skills  
Resources reviews  
Revision techniques  
Labour migration

**Fitness testing**  
to support the  
Performance Analysis  
and Performance  
Development Plan

**Inside the Australian  
Institute of Sport**



INSIDE

**TRACK**

2 3 4 5





*Welcome...* to the third edition of INSIDE TRACK, the online magazine designed to support the teaching of Pearson GCE PE.

The termly magazine provides material to support centres in their delivery of the course with articles written by senior examiners and guest writers, together with reviews of resources that may be helpful for teaching or background reading.

In this edition, guest writer Rob Harley, Principal Lecturer of Sports Science at the University of Brighton, considers the evidence to support the use of small sided games to improve aerobic fitness while affording additional physical and technical benefits.



Rob Harley, Principal Lecturer of Sports Science at the University

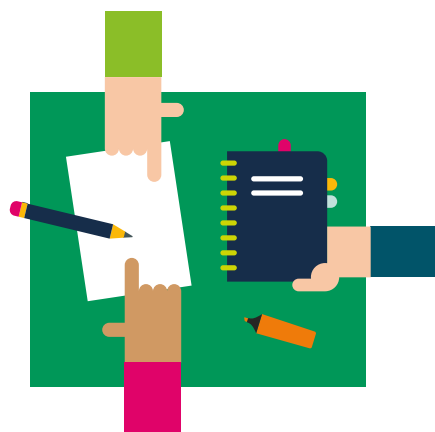
## Get in touch

It is hoped that INSIDE TRACK will be a helpful resource for centres delivering the Pearson specification. If you have particular requests for how the magazine can support you, or wish to contribute, then please do contact the editor at [insidetrackpearson@hotmail.com](mailto:insidetrackpearson@hotmail.com)

## Support materials

Topic guides, which provide additional detail about the content requirements of the specification, sample assessment materials, coursework examples and other useful resources to support the delivery of the course are available from the link: <http://qualifications.pearson.com/en/qualifications/edexcel-a-levels/physical-education-2016.html>

## Inside Track...



... is produced by Dennis Tattoo, Penny Lewis and Ivana Belkova.

## Content:



Guest writer Rob Harley on the use of small sided games in improving aerobic fitness



Labour migration



Levers



Fitness testing to support the Performance Analysis and Performance Development Plan



Leadership in sport



Revision techniques



Getting to grips with quantitative skills



Inside the Australian Institute of Sport



Resources reviews

## *Aerobic training with a twist*



**Recent research has shown that enhanced aerobic fitness can be achieved via small sided games.**

*Rob Harley is Principal Lecturer of Sports Science at the University of Brighton. In this article he examines the evidence to support the use of small sided games to improve aerobic fitness while affording additional physical and technical benefits.*

*Back in 2001 Helgerud and colleagues clearly demonstrated that improvements in aerobic fitness via an interval training intervention will lead to improvements in football performance.*

Two interval sessions per week (4 x 4 minutes hard running performed at 90-95% max heart rate with a three minute jog recovery) for eight weeks were shown to improve the number of sprints performed in games by 100%, increase the number of involvements with the ball by 24% along with an improvement in work capacity demonstrated by an increase in total distance covered by 20%.

More recently researchers have provided evidence on how these

improvements in aerobic fitness, that lead to improvements in performance, can be achieved via small sided games, in a variety of sports, while also leading to improvements in technical ability. For example, Delextrat & Martinez (2013) reported similar increases in aerobic performance with the small sided games group and the high intensity training group but most importantly, compared to the high intensity training group, the greater technical enhancement was seen in the small sided games group with significant improvements seen in defensive agility, shooting skills and upper body power.

Similar evidence supporting the use of small sided games to enhance aerobic fitness has been demonstrated in Rugby by Garbett (2006) who implemented a nine week in season training study comparing the use of either two traditional conditioning sessions (e.g. repeated short duration high intensity running activities with no skilled component) to two skills based conditioning games (with modified rules and modified field size) in addition to the athletes regular training sessions and **matched for training load**.  $\text{VO}_2$  max was significantly increased under both conditioning however it is interesting to note that significant improvements in 40 meter sprints and vertical jump ability also occurred in the skills based conditioning group but not in the traditional training group.

Research by Acros and colleagues (2015) demonstrated that small sided football games promoted considerably higher enjoyment scores than interval running sessions. Clemente et al (2014) has recently proposed methodological guidelines for the organisation of small

sided soccer games categorising them based upon the game structure and pitch dimensions and how this will influence the acute training variables of intensity, repetition, duration, recovery and volume.

Arcos, A.L., Vázquez, J.S., Martín, J., Lerga, J., Sánchez, F., Villagra, F. & Zulueta, J.J. 2015, "Effects of Small-Sided Games vs. Interval Training in Aerobic Fitness and Physical Enjoyment in Young Elite Soccer Players: e0137224", *PLoS One*, vol. 10, no. 9.

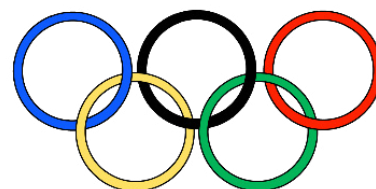
Clemente, F.M., Lourenço Martins, F.M. & Mendes, R.S. 2014, "Developing Aerobic

and Anaerobic Fitness Using Small-Sided Soccer Games: Methodological Proposals", *Strength and Conditioning Journal*, vol. 36, no. 3, pp. 76-87.

Gabbett, T.J. (2006) Skill-based conditioning games as an alternative to traditional conditioning for rugby league players. *J Strength Cond Res* 20: 309-315, 2006.

Helgerud, J., Engen, L.C., Wisloff, U. & Hoff, J. 2001, "Aerobic endurance training improves soccer performance", *Medicine and science in sports and exercise*, vol. 33, no. 11, pp. 1925-1931





## 1

2

# 3

*Opportunities for case studies:*

- African footballers
- Pacific rugby players
- Caribbean baseball players



## Impact

<i>Domestic competitions</i>	<i>National teams</i>
<p><b>Positive:</b></p> <ul style="list-style-type: none"> <li>• Broadens cultural respect and addresses racial and ethnic differences</li> </ul> <p><i>Examples: Mo Salah at Liverpool FC, Dele Ali at Tottenham</i></p> <ul style="list-style-type: none"> <li>• Overseas players have raised performance standards</li> </ul> <p><i>Many examples here: Premier League football, premiership rugby, county cricket</i></p> <ul style="list-style-type: none"> <li>• Commercial investment to employ the best players in the World</li> </ul> <p><b>Debate:</b> Richest clubs employ the best players but fans have to pay more for tickets</p>	<p><b>Positive:</b></p> <ul style="list-style-type: none"> <li>• National players have to improve if they wish to be selected for club teams</li> </ul> <p><i>However: In 2015 Spain had the highest percentage number of home players of the five big European leagues at 59% (crispdata). 2015 winners = Barcelona, 2016 final Real v Atletico Madrid, 2017 winners = Real Madrid</i></p> <ul style="list-style-type: none"> <li>• Increased standards and attitudes</li> </ul> <p><i>Impact: Increase in New Zealand born rugby players is improving standards of six nations (Bundee Aki and Hadleigh Parkes). England, Ireland and Wales all coached by foreigners.</i></p> <ul style="list-style-type: none"> <li>• Expands opportunities to play at international level</li> </ul> <p><i>Example: Aaron Cook, born in Dorset, changed nationality to compete for Moldova in 2016 Olympics</i></p>
<p><b>Negative:</b></p> <ul style="list-style-type: none"> <li>• Overseas players are limiting opportunities for home players</li> </ul> <p><i>Evidence: Crispdata 2015 – only 35% of English premier league players were English.</i></p> <p><i>Question: Could this be because English players are not good enough?</i></p> <ul style="list-style-type: none"> <li>• Negative habits are blamed on overseas players, contrast with traditional British values</li> </ul> <p><i>Example: Tottenham manager stating that diving it was acceptable.</i></p> <ul style="list-style-type: none"> <li>• Lack of affinity with fans</li> </ul>	<p><b>Negative:</b></p> <ul style="list-style-type: none"> <li>• Creation of “plastic Brits”</li> </ul> <p><i>Origin: The term “plastic Brits” was first used to describe athletes born abroad and competing for Team GB in 2012 Olympics</i></p> <ul style="list-style-type: none"> <li>• Different laws on nationality</li> </ul> <p><i>Example: Mexican Olympic eligibility = you need Mexican heritage</i></p> <ul style="list-style-type: none"> <li>• Non-selection of players who play abroad</li> </ul> <p><i>Example: Rhys Webb not selected for Wales</i></p> <p><i>Debate: New Zealand and England base rugby selection on this rule but they have a huge national playing base from which to select players. Professional careers are limited in time so players cannot be blamed for taking the money to play abroad.</i></p>

AA



## Getting to grips with levers

Principle Examiner Dee Gannon offers an overview of the knowledge about levers that candidates need to understand and apply.

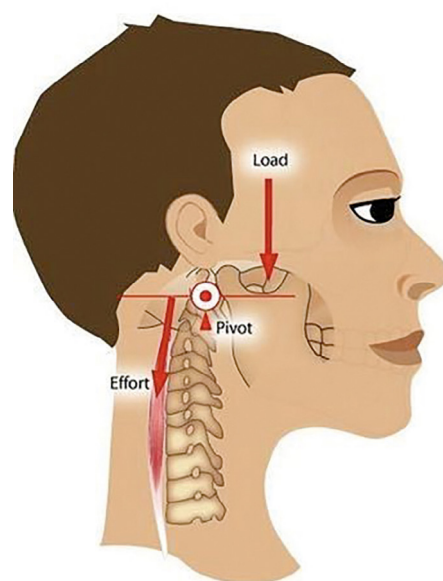
Movement in the body is produced by a system of levers. Levers have three components: **load/resistance**, **fulcrum** and **effort/force**. There are three classes of levers, dependant on the order in which these components are arranged.

### First Class Lever

In a first class lever, the fulcrum is between the effort/force and the **load/resistance**: **E...F...L** and creates a see-saw action.

First class levers are very rare in the human body with the most common example being any activity that involves nodding of the head E.g. watching the flight of a ball. The head is the load(resistance), the joint between the skull and first vertebra is the fulcrum, and the effort (force) comes from the trapezius.

[http://legacy.sciencelearn.org.nz/var/sciencelearn/storage/images/contexts/sporting-edge/sci-media/images/skull-and-neck/14650-14-eng-NZ/Skull-and-neck\\_full\\_size\\_portrait.jpg](http://legacy.sciencelearn.org.nz/var/sciencelearn/storage/images/contexts/sporting-edge/sci-media/images/skull-and-neck/14650-14-eng-NZ/Skull-and-neck_full_size_portrait.jpg)

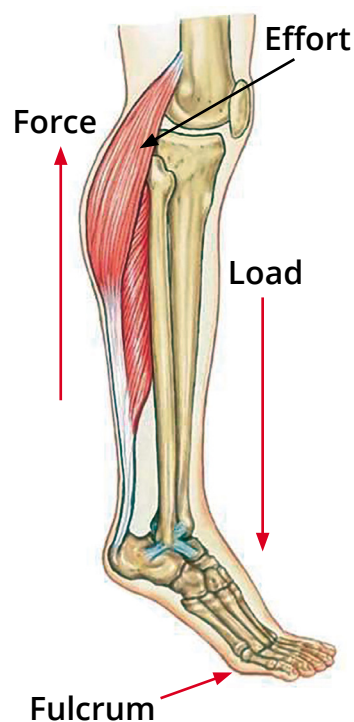


### Second Class Levers

In a second-class lever, the load/resistance is between the fulcrum and the effort/force: **F...L....E**

Again second class levers are limited within the human body with the most used example being a calf raise where the load is the body, the fulcrum is between the toes and the ball of the foot and the effort comes from the gastrocnemius and soleus.

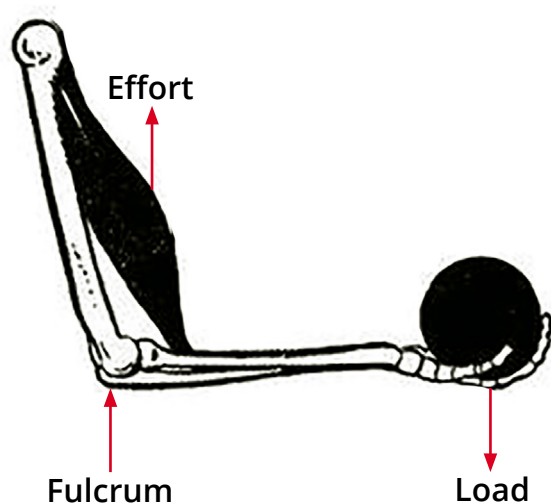
<https://study.com/academy/lesson/how-muscle-levers-affect-muscle-efficiency.html>



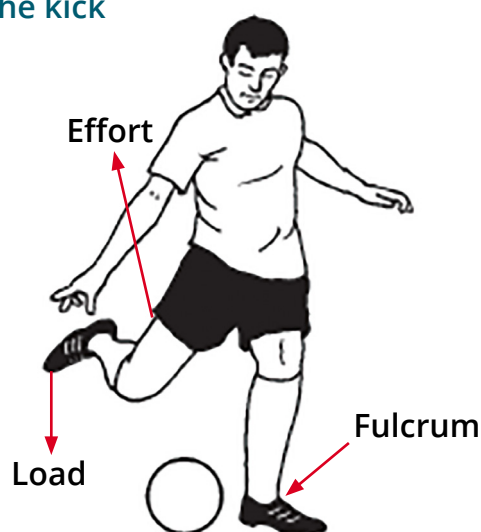
## Third Class Lever

In a third class lever the effort/force lies between the fulcrum and the load/resistance; F...E....L

Third class lever systems are very common in the body with a wide range of example. E.g. a biceps curl, where the fulcrum is the elbow, the effort comes from the biceps group and the load is the weight or preparing to kick a ball, where the knee joint is the fulcrum, the effort comes from the hamstring group contracting to flex the knee and lift the load of the lower leg.



## The kick



The curl: <https://healthtwo.wikispaces.com> (website now closed!!)

The kick: <http://www.sportsinjurybulletin.com/archive/biomechanics-soccer.htm>

Candidates need to be confident with naming all the components of a lever and understanding the layout of each class of lever. The best way to remember this is to use the terminology **Fulcrum**, **Load**, and **Effort** which allows candidates to use

1 - 2 - 3..... **F-L-E**

1 **E F L**

2 **E L F**

3 **F E L**

If candidates get the middle component right, then the other two just fall into place. Candidates also need to know the mechanical advantages and disadvantages of each lever system and this will be covered in more detail in the next issue.

DG



## *Fitness Testing – All Blacks style*

Principal Moderator Dane Smith offers additional advice on supporting candidates with their Performance Development Plans

The use of fitness tests is crucial in the planning and monitoring of the Performance Development Programme (PDP), component four of the A Level. Not only can the candidates/performers analyse their strengths & weaknesses from fitness test data, they can also utilise this information in scaffolding their PDP aims.

Fitness testing is also essential throughout the PDP, especially when transitioning between mesocycles in order to re-establish the specific training intensities required.

A coach can also use this baseline data as a way of monitoring a rehabilitation programme that could potentially be used when making judgements regarding the timing of the performer's comeback.



**Data from fitness test data enables candidates to identify strengths and weaknesses and provides information to assist in scaffolding their PDP aims.**

In Issue 2 of Inside Track important points raised were identified regarding the specificity and validity of tests. Centres need to make sure that candidates research and conduct fitness tests that are not only valid with regards to the component of fitness they are monitoring, but also how specific it is to the sport. Not all tests and normative data from popular websites provide up-to-date information, which is why it is important, especially for candidates striving for high marks, to research the specific tests and standards in detail in order to provide the platform for a more in-depth analysis.

By way of illustration, Dr. Nicholas Gill, the Strength and Conditioning Coach of the All Blacks has given a real insight into the fitness tests and standards that the current World Rugby Champions undertake throughout the training year:

Fitness Test	Component of Fitness	Standards
YoYo Intermittent Shuttle Test	Aerobic Fitness	This test is undertaken twice a year. Expected standards: Front Row- 17-18 Back Row & Inside backs- 18-19 Outside backs- 20+
1-3RM tests - Bench Press - Chin-up - Squat	Strength	These tests are undertaken twice a year but monitored all year.
Skinfold Test	Body Composition	Weight is monitored weekly and skinfold test is conducted at least every 6 weeks. Expected standards: Front Row- less than 100 2 <sup>nd</sup> Row- less than 80 Loose Forward and Backs- less than 65

#### Other regular monitoring tests undertaken include:

- A power profile where players are tested on how much force they can create when jumping with and without loads
- The use of GPS data has also been established for a number of years and is used to monitor workload and the demands of the game. Conditioning blocks throughout a training year are designed from some of this information as well as monitoring players during their return to play process as a result of injury.

Candidates have the opportunity for accessing more information regarding contemporary testing, training and recovery methods, by visiting Dr. Nicholas Gill's website: <https://www.nicgill.com/about-nic-gill-strength-and-conditioning-coach/DS>

## *Leadership in the sporting context*

Principal Examiner Colin Maskery reviews the key content on leadership, an important area in topic four of the Sports Psychology

Google leadership and there are 830,000,000 results thus enforcing the popularity of this interesting topic. The worlds of business, politics and sport have long debated this area of study and, crucially, what makes an effective leader, how individuals become leaders and what qualities contribute to making an effective leader?

Leadership is a behavioural process and is by nature interpersonal being directed at influencing and motivating others towards common goals. Central to this, and building on the nature v nurture debate as the starting point for our students, is the question - are leaders born or made?

There many quotes on what defines a good leader but that of J.F.kennedy is appropriate:

“ the ability to inspire others to give of their best ”

Lets' examine the core content:

## How are our leaders selected?

The two key areas for students to understand are:

### Emergent

Leaders grow out of the group often due to popularity

### Prescribed

Leaders are appointed – a more formal process

## What are the styles of leadership? Lewin (1935)

### Autocratic

The leader stays in sole control is dictatorial or authoritarian - offers no opportunity for others ideas

### Democratic

Takes responsibility but wants the opinions of others and may share decision making

### Laissez-faire

The leader is happy to go with the thoughts of the group and lets others make decisions

According to Chelladuri there are 5 types of leadership behaviour:

- Training and instruction –behaviour aimed at improving performance
- Democratic – allows decisions to made collectively
- Autocratic personal authority
- Social Support – concerns for the well-being of others
- Rewarding – positive reinforcement

An effective leader will be adapting and using each type interchanging as the situation demands.



## Fielder's Contingency Model (1967):

Fielder identified two factors that determine the effectiveness of the leader – the personality of the leader and the situation. He proposed a model that examined the way in which a leader interacts with the situation. He identified two classification of leader:

**Task-orientated** where the focus is centred on achieving a desired outcome

**Person-orientated** where the focus is on personal relationships

Both of these classifications are dependent three factors:

- The leader's relationship with the group
- The structure or demand of the task
- The leader's own power and authority

According to Fielder:

- ✓ A task orientated leader had greatest success in the most and least favourable situations
- ✓ A person orientated leader had most success in moderately favourable situations

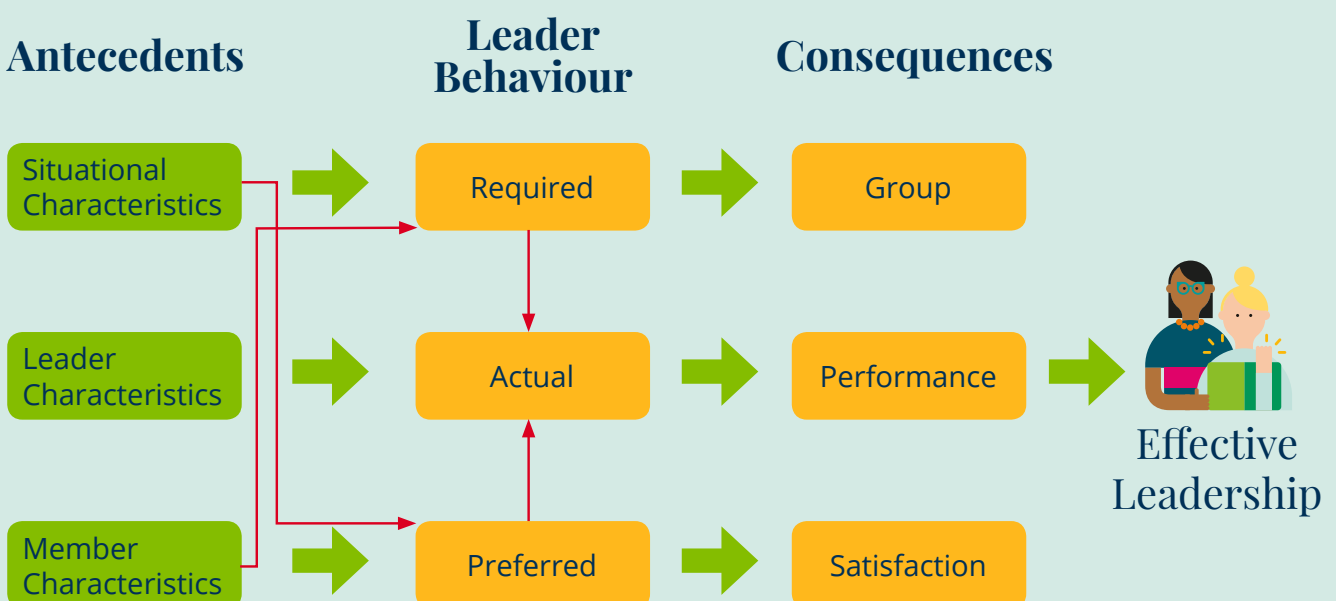
## The Chelladuri Multidimensional Model of leadership (1990)

This model further identified factors that contribute to effective leadership. These factors are inter-related and function together: Remember **S.L.M. characteristics**

**Situational** characteristics; – Required Behaviour of expectations and limits; influenced by the size of the group, location, task, goals, time together

**Leader** characteristics; The Coach – Actual Behaviour, style of leadership e.g. autocratic, personal qualities

**Member** characteristics; Performers – Preferred Behaviour, adaptive and reactive behaviours: what is the group like?



## What are essential qualities that make an effective leader?

As a paper exercise it is possible to find nearly 30 words beginning with the letter 'C' that build a bank of those qualities desired in a leader:



### The Theory!

Finally, what theories exist to explain why some individuals are effective leaders and others are less so.

#### Trait Theory:

Leaders have these qualities as inherited traits as result of genetics; they can adapt their style of leadership and are responsive to the situation- they have these by natural (nature) inheritance – they are born leaders!

#### Social Learning Theory:

Leaders learn the art of leadership through their social interactions and experiences perhaps even a trial and error process, through vicarious experiences thus by modelling (imitating) the behaviour of other leaders.

#### Interactionist Theory:

The combination of the two theories of Trait and Social learning – leadership is effective as a result of those innate qualities and the learned behaviours required to be a leader.

This topic will provide a stimulating and enjoyable area of study and as such engage students directly through their own experiences.

CM

## Revision Techniques that can make a difference

**Chief Examiner Dennis Tattoo summarises recent research on how best to help students prepare for exams.**

By the time this edition of Inside Track is available, revision programmes will soon be starting in centres up and down the country in preparation for the examination series which typically begins in May.

In a recent review of the research on the techniques most effective in supporting optimum performance in examinations, published in Psychological Science in the Public Interest, a journal of the Association for Psychological Science, Professor Dunlosky found there were two key factors which undermined examination success.

Firstly, that candidates tested themselves regularly in the lead-up to an examination and, secondly, that whatever the ability of an individual, a long term plan in developing the ability to retrieve material from their memory was much better than 'cramming' in the final few days before an exam.

Dunlosky argued that popular revision techniques such as highlighting key phrases, summarising content and using

mnemonics are likely to be helpful to some students in preparing for certain types of exam but that students should explore various methods to explore what works best for them individually.

Elsewhere, research suggests the following can be significant in enhancing revision:

- Organising a timetable to facilitate a long term plan of revision
- Regular self-testing improves the ability of most people to recall key information
- Teaching others about a topic enhances understanding
- Spacing revision out over many weeks allows material to be regularly re-learned
- Using past papers and peer or self-marking them, using mark schemes (usually available online), aids understanding of key content and aspects of examination technique
- Morning based revision for most people is better than working late at night
- Good eating, sleeping and exercise habits
- Regardless of what students might claim (!), most research suggests that listening to music and having access to mobile phones are significant distractions to learning material

DT

G24								
	A	B	C	D	E	F	G	H
1	WEEK1	5:00-5:45	6:00-6:45	7:00-7:30				
2	Mon	Science	Geog	Science				
3	Tue	Maths	French	Maths				
4	Wed	Science	Science	Maths				
5	Thurs	Maths	Science	French				
6	Friday	Maths	English	Science				
7		12-12:45	1:00-1:45	2:00-2:45	3:00-3:45	4:00-4:45	5:00-5:45	
8	Saturday	Geog	Maths	Science	Geog	French	Science	
9	Sunday	Science	Science	English	Geog	Maths	Maths	

**A revision timetable designed to enable a long term plan has been shown to be key to success in examinations**



## Quantitative skills within the examinations

**Principal Examiner Ellie Bunston summarises the importance of candidates practising questions that involve quantitative skills.**

In the 2016 specification, quantitative skills are an essential part of the examination. Questions requiring quantitative skills make up 5% of the total marks available and will be included each series.

The skills required vary depending on where the paper chooses to assess quantitative skills and may be linked to any of the assessment objectives AO1, AO2 or AO3, which are summarised on page 63 of the specification.

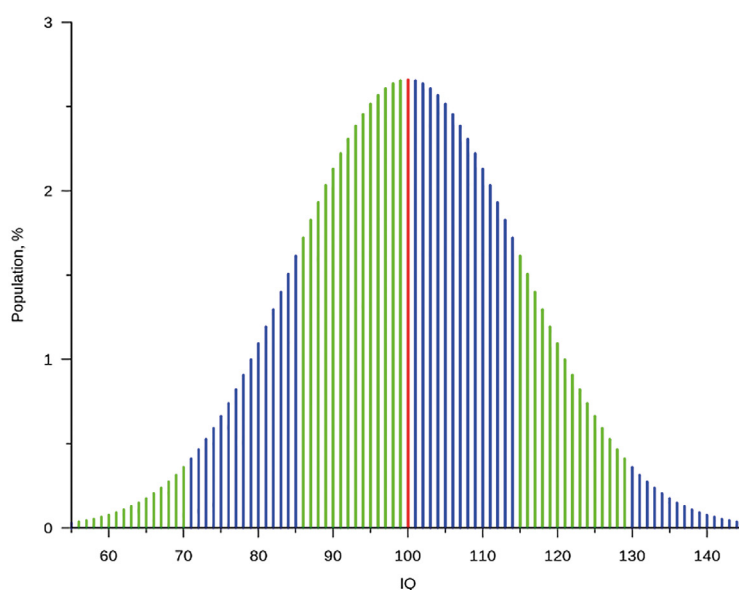
Certain topics lend themselves more to numeracy skills, for example, the Biomechanics section has some topics that involve calculations. However, interpreting data can come in many forms. It might for example, be that a table or a graph is included with a question.

In terms of supporting candidates to prepare for the examinations, candidates need to understand that such questions will appear on the papers and that this style of question requires thorough understanding. In particular, candidates must know that where a question has a numerical answer it should also be accompanied by the relevant units.

Candidates need to know that calculators are permitted in exams and that when a calculation is required that all working is shown.

Candidates should also practise questions where they have to interpret unseen tables or graphical information, commenting on the data in the source and applying it to their theoretical knowledge.

EB



Questions that involve the interpretation of data can come in a variety of forms. For example, a graph may be embedded in a question.

## *Inside the AIS*

**Chief Examiner Dennis Tattoo highlights the changing role being played by the Australian Institute of Sport in supporting Australian sport.**

I had the opportunity of a visit to the AIS on a recent trip to New Zealand and Australia. Having taught about the AIS for the 2000 and 2008 specifications it provided an opportunity to visit the iconic facility which opened in 1981, partly in response to the poor performances of the Australian team at the 1976 Olympics, but also in the wake of 1975 Coles Report which advocated the development of an institute. Don Talbot, a much respected swimming coach, was appointed as the first Director.



**The AIS has a clearly defined mission, to develop elite sport in Australia by providing facilities and funding to sporting organisations and potential elite athletes, improving prospects of success at major games.**

I spent a couple of hours with junior international rower Will Clarke who, as well as showing me the key facilities, outlined some of the recent initiatives designed to keep Australia at the forefront of international sport. Will explained that he is targeting the Olympic Games in 2024 and benefits from a dAIS grant which provides him cash directly from the Australian Government to assist him with his ambition of achieving Olympic and World Championship selection.

The institute is based in the capital city of Canberra and even though many of the facilities were built in the late 1970s, new facilities continue to be added, the latest of which is a post training / performance recovery facility which includes the cutting edge recovery pools which, at the flick of a switch, rapidly alters the temperature of the water anywhere from 5 – 55 degrees, depending on the needs of the athlete. This facility has dedicated sports scientists who are responsible for working with individual sports coaches.

Will explained that all athletes benefit from the sport science and sports medicine support available and that he has a twice yearly formal assessment of his performance and

progress, including specific targets for the coming months. Regular testing underpins the AIS regime. Training programmes utilise new training methods only where they can be scientifically tested and validated against agreed performance measures.

As well as providing top class facilities for athletes and their coaches, the AIS Centre for Performance Coaching and Leadership continues to offer learning opportunities for coaches and support staff, including access to the latest research from global experts. The most recent 'World Class to World Best' conference took place in November 2017 with presentations from Australia's winning America's Cup skipper for Team New Zealand Glenn Ashby and the Australian Women's Football (The Matildas) coach Alen Stajcic. The sharing of expertise across sports remains fundamental to the AIS success story.



## **Opportunities for female athletes at the AIS have improved dramatically in recent years; one factor behind Australian success in a number of global sports**

Will also explained that the tradition of Australia of targeting particular sports for success at major games continues into the 21st century. The latest for increased interest is combat sports. With 52 medals available at Tokyo, the AIS is now working even more closely with clubs and state organisations to bring the best fighters together at the AIS. On my visit the Combat Centre was full of young judokas being assessed as part of the programme designed to make Australia a dominant force by 2024.

Although the AIS remains central to long term plans outlined by the Australian Sports Commission, there are signs of increased decentralisation around funding and technical and science support, with the state sports institutes providing extensive support for their focus sports. For example, the Victoria Sports Institute (VIS) currently supports 300 scholars in over 50 sports including athletes with disabilities. Like the AIS the VIS offers a comprehensive programme of performance analysis embracing statistical and visual assessment of performance; race/game profiling; software analysis for qualitative and quantitative feedback and performance comparison.

My visit was timely as it coincided with AIS actively considering shifting the core elements of its support structures across Australia so their sports medicine and sports science experts are operating closer to athletes. Such a move would see the AIS retain a base in Canberra whilst supporting the Australian Sports Commission's National Sport Plan.



## *AIS fact box:*

-  Opened in 1981, following a poor performance in 1976 Montreal games
-  Located at Canberra, the AIS currently provides scholarships for 700 athletes each year in 38 separate programmes and 29 sports, although these figures change depending on the proximity of major events
-  Stated mission is to develop elite sport in Australia by providing facilities and funding to sporting organisations and potential elite athletes
-  Provides elite and potential elite athletes access to high quality, often state-of-the-art sports facilities, national and international competition, and the opportunity chance to combine training and competition with travel, work and study
-  The Athlete Pathways and Development team works with a wide variety of National Sporting Organisations to achieve their national high performance targets
-  Centre for sports science research and development and coach education
-  Provides a comprehensive programme of performance analysis
-  Supports community initiatives to get more Australians active. Play.Sport. Australia. is a recent plan to encourage more Australians, particularly young Australians, to play sport more often – at school or with mates at their local club.
-  Role of AIS currently (2018) under review as part of the National Sports Plan, with the likelihood of moving support systems to be close to athletes

DT

## Resources reviews

**Component three Team Leader Ann Hemming continues our series of reviews with a look at the website that offer an insight into sports based technology.**

One of the exciting changes of the new specification is the focus on technology. For example, in Topic 2 candidates are required to demonstrate their understanding of the use of technology in physical activity and know how the performer and coach, to monitor fitness and performance, use contemporary technologies. Topic 5 Sport and Society, amongst others, requires learners to be able to discuss how technology is used to combat deviance and how participation is impacted by wearable technology.

Whilst there is no requirement for the learners to know a specific technology, keeping up to date with the rapid development of new technologies is a challenge for teachers and candidates.

Sites you might find useful are:

<https://channels.theinnovationenterprise.com/sports?channel=chief-technology-officer>

Covers latest trends in Sport technology. An interesting topic of debate is the growth of E-sports. For example, did you know that Tottenham Hotspur will host live eSports matches at their new stadium, due to open for the 2018/19 season?

<https://www.sporttechie.com/>

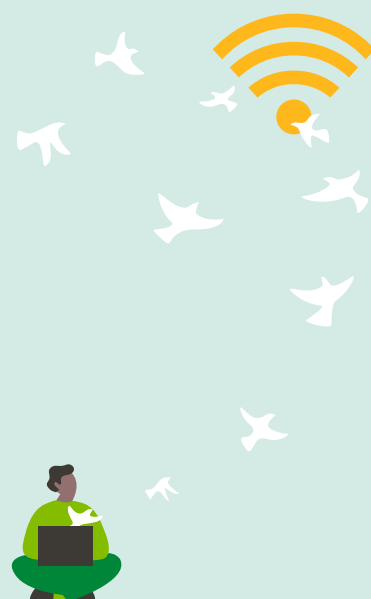
Access to a range of articles, blog and videos. If you register (free) you'll receive a regular email update of the latest technological developments.

In helping to deliver the course, teachers might find <https://thepegeek.com/> useful. The site highlights the use of technology to improve engagement & learning outcomes in PE.

<http://www.sportswearable.net>

This site provides an overview of recent innovations including wearable technology, Virtual Reality and Augmented Reality. The site offers reviews, interviews and video clips, and also provides the option of searching for specific sports and leagues and covers new technology that underpins sports at all levels.

AH



This is new online magazine designed to support the teaching of Pearson  
GCE PE; specifically, for the 2016 specification.

If you would like to participate, please get in touch with the editorial team  
at [insidetrackpearson@hotmail.com](mailto:insidetrackpearson@hotmail.com) or  
[teachingpeandsport@pearson.com](mailto:teachingpeandsport@pearson.com).