



# **PiXL Gateway: Progression**

## **PE**

### **Contents:**

- I. Reading List
- II. Tasks
- III. Questions

## **Reading List**

### **Books**

Clegg, C. 1995. *Exercise Physiology and Functional Anatomy*. Feltham Press

Walder, P. 1998. *Mechanics and Sport Performance*. Feltham Press

Honeybourne, J. 2006. *Acquiring Skill in Sport: An Introduction*. Routledge

Bean, A. 2017. *The Complete Guide to Sports Nutrition*. Bloomsbury Publishing.

### **Scholarly Articles**

Polley, M. 2008. 'The amateur rules': Amateurism and professionalism in post-war British athletics. *Contemporary British History*, pages 81-114.

Quennerstedt, M. Ohman, M & Armour, K. 2014. *Sport and exercise pedagogy and questions about learning*. *Sport, Education and Society*, pages 885-898.

Alexandris, K. Tsorbatzoudis, C. & Grouios, G. 2017. *Perceived Constraints on Recreational Sport Participation: Investigating their Relationship with Intrinsic Motivation, Extrinsic Motivation and Amotivation*, *Journal of Leisure Research*, pages 233-252.

Zaichkowsky, L. 2004. *Arousal in Sport*. *Applied Psychology*.

Weinberg, R. S. (2002) *Goal setting in sport and exercise: Research to practice. Exploring sport and exercise psychology*, pages 25-48.

## **Television**

Sports News Channel- This will support how you show your understanding by using current examples from sport.

Icarus. 2017- A film around doping within sport and current issues surrounding the use of drugs within sport.

Hoop Dreams. 1994- A film regarding barriers to participation in sport.

Live Sporting Events- This will support how you show your understanding by using current examples from sport.

## **YouTube Clips**

Venous Return <https://www.youtube.com/watch?v=J80hhCkLuaA>

Stages of Learning <https://www.youtube.com/watch?v=n7UcobScnck>

Rational Recreation <https://www.youtube.com/watch?v=SPrTPKj4ONQ>

Diet and Supplements <https://www.youtube.com/watch?v=pBAPapMCRlo>

Newton's Laws <https://www.youtube.com/watch?v=MAM6LOUnJ80>

Aggression in Sport <https://www.youtube.com/watch?v=DlrTha8cbAI>

## **Tasks**

### **Task 1**

Levers in Sport- using the YouTube clip below for background information and recapping from GCSE level, complete the table to demonstrate knowledge and understanding of levers within sport.

<b>Lever Type</b>	<b>1<sup>st</sup> class</b>	<b>2<sup>nd</sup> class</b>	<b>3<sup>rd</sup> class</b>
Diagram of lever			
Where it can be found in the body- give two examples			
Give two examples of where the lever system can be used in sport			
What is the mechanical advantage of the lever system?			
What is the mechanical disadvantage of the lever system?			

[https://www.youtube.com/watch?v=d1wS\\_OlJzml](https://www.youtube.com/watch?v=d1wS_OlJzml)

## **Task 2**

Theories of Learning- research the following two theories of learning. Create a power point presentation highlighting the key features of the theory, how this might relate to learning within sport and also the positives and negatives of the theories application within sport.

- Operant conditioning
- Observational learning

## **Task 3**

Design 3 different training programmes; one for a marathon runner, one for a long jumper and one for a shot putt thrower. Justify your choices of the key training methods you have applied within the programme.

## **Task 4**

Calculate the speed of Usain Bolt in the 100m.

Time= 9.58 seconds

Calculate the speed of Mo Farah in the 5000m.

Time= 12 minutes 53 seconds

Calculate the speed of Allyson Felix in the 400m

Time= 49.26 seconds

## **Task 5 Questions**

### **Anatomy & Physiology**

1. Explain how blood is redistributed to the working muscles. (3 marks)
2. Explain how oxygen diffuses from the lungs into the blood and how it is transported to the tissues. (4 marks)
3. Describe the characteristics of the main muscle fibre type used by sprinters. (4 marks)
4. Name the type of muscle contraction that occurs when kicking a football in a penalty shootout and identify the agonist and antagonist. (3 marks)

### **Skill Acquisition**

5. State a skill in gymnastics you think is closed, a skill that you think is serial and a skill that you think is gross. Give reasons for your choices. (3 marks)
6. Name the three stages of learning that a sports performer experiences whilst developing their skills and describe the characteristics of the level of performance associated with each stage. (4 marks)

### **Sport and Society**

7. Discuss the effects of industrialisation on sporting opportunities for working class. (4 marks)
8. Give reasons why female participants have improved opportunities to take part in sport in the early twenty-first century compared to the late twentieth century. (4 marks)

### **Exercise Physiology**

9. Basketball players need good cardiovascular endurance. State two classes of food that are most suitable for players who require cardiovascular endurance and explain why they are needed in their diet. (3 marks)
10. What are the psychological benefits of performing a warm up? (3 marks)
11. Define and give examples of qualitative data research in relation to assessing an individual's performance within a game situation. (2 marks)

### **Biomechanics**

12. Using Newton's first law of motion, explain how a rugby kicker performs a conversion after a try in a game of rugby. (3 marks)

### **Sport Psychology**

13. Name and explain one theoretical principle that a coach could use to change a negative attitude to a positive one. (3 marks)
14. Explain the different types of anxiety and use examples of how these can have a negative impact on performance. (4 marks)
15. Describe the process of effective goal setting in preparation to motivate a team during both training and performance. (4 marks)