



A-Level Physical Education Bridging Work Summer 23

Dear Pupil

Please find below a list of recommended reading and links to relevant material that will help you to achieve a good understanding of A-level Physical Education. At LRGS we follow the OCR A-level course and their website is a fantastic source of invaluable information which will give you a head start prior to September. **Please note that this work is helpful and recommended to give you a flavour of what to expect at AS and A-level P.E. here at Lancaster Royal Grammar School. It is not compulsory.**

[AS and A Level - Physical Education - H155, H555 \(from 2016\) - OCR](#)

Below are several key terms/words that are essential for the first three modules that will be started in September. Your task is:

1. Research each key term/word and find a simple definition that you understand. Write this out in your own words.
2. Then use a diagram, explanation or practical example to illustrate this term/word in the context of PE/sport to show your full understanding of its meaning.

Applied Anatomy and Physiology:

1. Anticipatory rise [GCSE PE Revision Anticipatory Rise - YouTube](#)
2. Articulating bones [OCR A-level PE: The Elbow and Wrist - YouTube](#)
3. Arterio-venous oxygen difference (A-VO₂ diff) [A Level PE: Arteriovenous Oxygen Difference \(AVo₂ Diff\) - YouTube](#)
4. Cardiac conduction system <https://www.bbc.co.uk/bitesize/guides/zrrry9q/revision/5>
5. Excess post-exercise oxygen consumption (EPOC) [What is EPOC \(Excess Post Exercise Oxygen Consumption\) - YouTube](#)
7. Plane & Axis [OCR A-level PE - Planes of Movement - YouTube](#) [OCR A-level PE: Axes of Rotation - YouTube](#)
8. Receptors [OCR A-level PE: Control of Heart Rate - YouTube](#)
9. VO₂ max <https://www.teachpe.com/anatomy-physiology/vo2-max>
10. Partial pressure

Skill Acquisition:

1. Skill <https://www.youtube.com/watch?v=lycbtd6v7mA>
2. Learning
3. Transfer of learning <https://www.teachpe.com/sports-psychology/transfer-of-learning>
4. Reaction Time <https://www.topendsports.com/testing/reactime.htm>

5. Perception
6. Single channel hypothesis <https://www.teachpe.com/sports-psychology/informationprocessing>
7. Psychological refractory period <https://www.teachpe.com/sports-psychology/informationprocessing>
8. Constructivism

Social and Contemporary Issues in Sport:

Research and investigate:

1. The origins of sport in the UK
2. Popular Recreation
3. The impact of the Industrial Revolution on sport in the UK
4. Rational Recreation
5. The origins of the first International sports fixtures for men and women
6. How sport has adapted from C19 to C21 - gender, class, social mobility, race, disability, transport, technology
7. What barriers prevent people accessing sport in the C21
8. The origins of the Olympic games
9. The values of the Olympic games
10. The history of the Olympic games
11. The relevance of the following Olympic Games:
 - 1936 - Berlin
 - 1968 - Mexico City
 - 1972 - Munich
 - 1980 - Moscow
 - 1984 - LA
12. Hosting London 2012 Olympic Games
13. Hosting a Global Sporting event like a World Cup

The following activities will enable you to prepare for A-level study by building on the prior learning gained from topics as part of your GCSE course.

Applied Anatomy and Physiology

The Musculoskeletal System and movement analysis: Answer the following questions for the movements involved in a press-up.

Perform the downward phase of a press-up.

1. What is happening at the elbow joint?
2. Which muscle is contracting?
3. What type of contraction is it performing?

Now perform the upward phase of a press-up.

1. What is happening at the elbow joint?
2. Which muscle is contracting?
3. What type of contraction is it performing?

Try to hold the press-up in the downward phase.

1. Which muscle feels as if it is contracting?
2. What type of contraction is it performing?

Answer the following questions for the movements involved in a squat.

Perform the downward phase of a squat.

1. What is happening at the knee joint?
2. Which muscle is contracting?
3. What type of contraction is it performing?

Now perform the upward phase of a squat.

1. What is happening at the knee joint?
2. Which muscle is contracting?
3. What type of contraction is it performing?

Try to hold the squat in the downward phase.

1. Which muscle feels as if it is contracting?
2. What type of contraction is it performing?

Answer the same questions for a movement of your choice that involves using the shoulder joint.

The Cardiovascular System

Answer the following questions to check that you understand how the heart functions as this will help your understanding of more complex aspects of the study of the cardiovascular system.

1. Name the 4 chambers of the heart.
2. Which chambers are larger? Explain why.
3. Which side of the heart is larger? Explain why.
4. Name the main blood vessels that enter and leave the heart.
5. What are the names of the valves in the heart and where are they located?
6. What is the main function of valves?
7. Starting at the venae cava, place the following structures in the correct order that a red blood cell would pass on its journey through the heart.

Aorta	Left ventricle	Lungs	Pulmonary artery	Bicuspid valve
Right ventricle	Left Atrium	Tricuspid Valve	Right Atrium	Pulmonary vein

Skill Acquisition

A. Skill classification

Classify a sprint start in athletics under the following continua studied at GCSE level: Open -----

Closed Self-paced ----- Externally paced Gross----- Fine

Justify (support your viewpoint with evidence) each choice you have made by referring to the

characteristics of the classification.

B. Information Processing

Consider a game or event that you recently took part in. Think about some of the decisions you made during that game or event. ☒ What information did you use to make those decisions and what information was not needed? ☒ List the relevant and irrelevant information. ☒ What factors hindered your decision making?

Make a list of the types of feedback you used in this situation. Describe each type and explain how they helped you in your performance.

C. Guidance Methods

A novice or beginner is at the first stage of learning called the cognitive stage. What are the characteristics of a performer at this stage?

At GCSE level we studied 4 methods of guidance. Describe each method. Create a table to show the advantages and disadvantages of each method of guidance to a performer at the cognitive stage of learning.

Please feel free to contact me via email rchadwick@lrgs.org.uk should you have any further questions.

Yours faithfully,

Mr R Chadwick

Head of P.E.

