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**A-Level Bridging Work**

**Physical Education**

The following tasks will help you revise key KS4 knowledge that you will continue to need and introduce you to the new topics within KS5. Please complete the booklet, filling in the table at the end and getting it signed off by someone at home who has seen you complete the work (note down the date and time).

**Please complete all the activities in preparation for September.**

The pupils who achieve well at A-Level are those who can study independently and give their time to revising and learning at home. The completion of these tasks will be a good indicator, for both of us, of the work needed when the course starts. I excitedly wait to see the fantastic work you produce.

Have a lovely summer holiday and see you in September.

Applied Anatomy and Physiology, and Biomechanics

These areas will look at understanding how the body is put together, and how the different processes in it work. We will look at everything from the **heart** to the **brain** and the **energy systems**, (**preventing) different types of injuries**, and how we **train**, **eat**, and **supplement** to improve sporting performance.

This is the module for anyone wishing to become a **physiotherapist**, **nutritionist**, or **performance analyst**.

Activity 1: Please put together key terms and theoretical concepts on the following topics:

* Diet
* Energy systems used
* Analysis of movement for s specific skill in the sport (muscles & bones used, planes & axes)
* Transportation of O2 and the removal of CO2
* Use of proprioceptors, baroreceptors, and chemoreceptors

The majority of these topics you have already covered in GCSE, but you will need to do some research.

Activity 2: Use Google Scholar ([scholar.google.com](https://scholar.google.com/)) to research one of the topics below. You should read **3** – **4** articles and summarise your findings. If possible, apply this information to a sport of your choice. You will need to provide a bibliography of the documents you have read at the end (names of the authors. *Title of the document*.)

* Analysis of movement in sport
* Energy systems in sport
* Effects of lactic acid in sport
* Gaseous exchange during sport

Skill Acquisition and Sport Psychology

These areas will look at how an athlete’s mental well-being and psychological state affect their performance. As well as how we, as coaches, can provide the best support to our athletes to improve their performance. We will look at the effect of **arousal**, **motivation**, and **confidence** on performance, the benefits of **goal setting**, how we **process and store information**, and **theories of learning**.

This is the module for anyone wishing to become a **sports coach**, **Physical Education teacher** or **sport psychologist**.

Activity 1: Define the following terms:

* Skill
* Simple – Complex skill
* Open – Closed skill
* Fine – Gross movement
* Externally-paced – Internally-paced skill
* Discrete – Serial – Continuous skill
* Low Organisation – High Organisation skill

For each continuum, you must provide **2** examples: one for each side. Remember they are a continuum, so your example might not be right at the end.

Activity 2: Define the following key terms:

* Confidence
* Self-efficacy
* Attitude
* Motivation
* Arousal
* Anxiety

For each, explain how having a high/low level (or positive/negative attitude) would affect an athlete’s performance level.

Activity 3: Research the following terms:

* Positive transfer
* Negative transfer
* Bilateral transfer
* Zero transfer

When completing your research, include the following information:

* An explanation for each of the different processes.
* A sporting example (of your choice) for each type of transfer.
* A suggestion of how a coach/teacher could this information to develop their athlete’s skill and ability levels.

Sport and Society (and the Role of Technology)

These areas will look at how sport has developed through the past **200** years: from the pre-industrial ages of 1700s Britain to the continued technological advancements within sport today. These areas will also see us tackle hard-hitting debates about the equality (or lack of) within sport and the use of drugs and acceptance of violence in sport. We will look at the **history** and **development** of football, tennis and athletics, the effect of **commercialisation** in sport, **sociological debates** in modern-day sport, and the **future of technology** in sport.

This is the module for anyone wishing to become a **sports journalist**, **sports historian**, or **sports policymaker**.

Activity 1: Read a newspaper/web article on one of the following topics:

* Racism in sport
* Sexism in sport
* Drug use in elite sport
* Stereotyping in adolescent sport
* Financial inequality in sport

Summarise the article in no more than **10** points.

Suggest **3** ways this issue could be tackled.

Activity 2: Listen to one of the episodes of the [*Good Sport (with Jody Avirgan)*](https://link.chtbl.com/mScQYO4s)podcast listed below. Summarise the argument presented in the episode. Provide **one** for and **one** against statement for this argument.

* Something in the Water: Where Do Great Athletes Come From?
* Pardon the Interruption … But Did Sports Debate Shows Change the World?
* The Hidden World of Stadium Deals
* How to Make a Fan: From F1 to Banana Ball
* The Past and Future of Gender in Sport

Essential Physical Education Terminology Grid

Use this grid to guide your revision during the summer. Tick or cross the first **3** boxes after your GCSE exams to indicate what topics you are comfortable with, then fill in the last **3** boxes at the end of the summer to see the progress you have made. This is not a complete list of key A-Level terminology, but it will cover the basics when the course begins.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **After GCSE I knew:** | | | **At the end of the summer, I know:** | | |
| **Key term** | **Definitions** | **Examples** | **How to apply appropriately** | **Definitions** | **Examples** | **How to apply appropriately** |
| Altitude training |  |  |  |  |  |  |
| Anticipatory rise |  |  |  |  |  |  |
| Antagonistic pairs |  |  |  |  |  |  |
| Aterio-venous oxygen difference (A-VO2 diff) |  |  |  |  |  |  |
| Axis |  |  |  |  |  |  |
| Cardiac conduction system |  |  |  |  |  |  |
| Excess post-exercise oxygen consumption (EPOC) |  |  |  |  |  |  |
| Indirect calorimetry |  |  |  |  |  |  |
| Lactate threshold |  |  |  |  |  |  |
| Oxygen deficit |  |  |  |  |  |  |
| Planes |  |  |  |  |  |  |
| Receptors |  |  |  |  |  |  |
| Respiratory exchange ratio (RER) |  |  |  |  |  |  |
| VO2 Max |  |  |  |  |  |  |
| Chronic injury |  |  |  |  |  |  |
| High intensity interval training (HIIT) |  |  |  |  |  |  |
| Lever |  |  |  |  |  |  |
| Objective data |  |  |  |  |  |  |
| Subjective Data |  |  |  |  |  |  |
| Reliability |  |  |  |  |  |  |
| Validity |  |  |  |  |  |  |
| Quantitative data |  |  |  |  |  |  |
| Qualitative data |  |  |  |  |  |  |
| Anticipation |  |  |  |  |  |  |
| Reaction time |  |  |  |  |  |  |
| Social learning |  |  |  |  |  |  |
| Transfer of learning |  |  |  |  |  |  |
| Aggression |  |  |  |  |  |  |
| Anxiety |  |  |  |  |  |  |
| Arousal |  |  |  |  |  |  |
| Cohesion |  |  |  |  |  |  |
| Cognitive dissonance |  |  |  |  |  |  |
| Learned helplessness |  |  |  |  |  |  |
| Self-confidence |  |  |  |  |  |  |
| SMARTER acronym |  |  |  |  |  |  |
| Social facilitation |  |  |  |  |  |  |
| Golden Triangle |  |  |  |  |  |  |
| Gamesmanship |  |  |  |  |  |  |
| Sportsmanship |  |  |  |  |  |  |
| Deviance |  |  |  |  |  |  |