

# A Level Bridging Work

## Physical Education

The following tasks will enable you to revise your KS4 PE and prepare you for the A Level course. Please fill in the table and get it signed off by someone at home who has seen you do the following. Note down the date and amount of time.

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

**Activity 1:** Please put together a 3-5 minute presentation including the following topics to a sport/sportsperson of your choice. The majority of these topics were covered at GCSE, but you will need to research some of them.

Diet

Energy systems used (including the predominant energy system)

Analysis of movement for an action involved in the sport (muscles, bones used, planes and axis)

Transportation of Oxygen around the body and removal of Carbon dioxide

Use of proprioceptors, chemoreceptors and baroreceptors.

You will present in the first week back. You will be marked on information included as well as the application of this information to the sport of your choice.

**Activity 2:** Go onto Google Scholar and research one of the topics below. You should read 3-4 articles and provide a summary of what you have found. If possible, apply this information to a sport of your choice. You need to include a bibliography (title of the document used and the names of the authors) for the documents which you have read and included.

<https://scholar.google.com/>

Topics to choose from:

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

**Activity 3:** Choose an article from the list below. Summarise the key ideas the article – ideally in ten points. Create 5 questions relating to the article which someone else could answer.

<https://alsnewstoday.com/2017/10/31/als-study-finds-that-nervous-systems-heart-control-response-depends-on-type-of-disease/>

<http://www.sciencedirect.com/science/article/pii/S073510979390773T>

[https://www.researchgate.net/profile/Eric-Doucet/publication/12015767\\_Impact\\_of\\_high-intensity\\_exercise\\_on\\_energy\\_expenditure\\_lipid\\_oxidation\\_and\\_body\\_fatness/links/00463533ad59](https://www.researchgate.net/profile/Eric-Doucet/publication/12015767_Impact_of_high-intensity_exercise_on_energy_expenditure_lipid_oxidation_and_body_fatness/links/00463533ad59)

<https://academic.oup.com/biomedgerontology/article/55/7/B336/2948070>

<http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.654.4991&rep=rep1&type=pdf>  
<http://hyper.ahajournals.org/content/46/4/667.short>

#### **Activity 4: Transfer of Learning.**

You need to research the areas below related to “Transfer of Learning”.

1. Positive transfer
2. Negative transfer
3. Bilateral transfer
4. Zero transfer

When completing your research, you must include the following information:

- Provide an explanation for each of the different processes.
- Provide a sporting example for each type of transfer using a sport of your choice.
- Suggest how a coach/teacher could use transfer of learning to develop their performers skill and ability levels.

#### **Activity 5: Theories of Learning.**

You need to research the four theories of learning below. When completing your research, you should use articles from Google Scholar to ensure you collect accurate and suitable information. You may choose to watch appropriate online videos to help you gain an understanding of these theories of learning.

1. Social development theory / Constructivism (Vygotsky)
2. Operant conditioning
3. Observational learning (Bandura)
4. Cognitive theory / Insight learning (Gestaltist theory)

When completing your research, you must include the following information:

- Provide an explanation for each of the different theories.
- Draw any relevant diagrams which are linked to each theory.
- Provide sporting examples for how each of these theories of learning may be integrated into sporting practices.
- Suggest how a coach/teacher may use the different theories of learning when coaching/teaching different performers.

## Activity 6: Classification of skill

You need to learn the following key terms. When you have learnt them, you need to apply them to your own examples, using sports of your choice.

Key Term	Definition
Skill	A learned ability to bring about pre-determined results with the minimum outlay of time, energy or both
Simple skill	Are made up of basic movement actions, are not difficult to perform, & needs limited decisions to be processed. For e.g. a chest pass, straight jump, underarm serve, etc
Complex skill	Involves a lot of thought and concentration and are more difficult to perform. The performer has many decisions to make & receives a lot of information. For e.g. a layup, hand-spring, cricket bowl, etc
Open skill	A skill which is performed in a certain way to deal with a changing or unstable environment, e.g. to outwit an opponent. The performer has to consider many elements, such as his/her teammates, opposition, etc
Closed Skill	A skill which is not affected by the environment or performers within it. The skill tends to be done the same way each time. The skill is performed in a predictable environment, & the performer has fewer decisions to make, e.g. A shot put, tennis serve, etc
Fine movement	Small and precise movement, showing high levels of accuracy and co-ordination. It involves the use of a small group of muscles, e.g. Spin bowling in cricket, returning a shot in table tennis, etc
Gross movement	Using large muscle groups to perform big, strong, powerful movements, e.g. A basketball layup shot, a rugby tackle, etc
Externally paced skill	A skill that is started because of an external factor. The speed, rate or pace of the skill is controlled by external factors, e.g. an opponent, or sound of a start gun/horn for a race
Internally paced skill	The skill is started when the performer decides to start it. The speed, rate or pace of the skill is controlled by the performer, e.g. Serving in tennis, taking a penalty in football, etc
Discrete skill	Has a clear beginning & end & is one short, sharp action, e.g. A tennis serve (there is a clear beginning & end to the skill)
Continuous skill	Has no clear beginning or end; often the end of one part or sub-routine of the skill is the start of the next part e.g. Cycling – the action of pedalling is repeated until the performer decides to stop
Serial skill	Is one in which several discrete skills are linked together in a specific order to complete a task, e.g. A gymnastics or trampoline routine; each skill within the routine can be practiced individually & then put together
Low organised skill	A skill that is easily broken down into sub-routines, e.g. A swimming stroke; as the action of a swimming stroke can be broken down & practiced individually if needed
High organised skill	A skill that is not easily broken down into parts, e.g. A volley in football is a very quick skill & therefore difficult to break down into sub routines



## Essential PE Key Terminology Grid

Tick or Cross the first 3 columns after GCSE to indicate which key terms you are comfortable with. Use this as a reference to guide your revision over the summer, then fill in the last 3 columns at the end of the summer to see how much progress you have made. Some of these you will not have covered during GCSE, so you will need to research them. This is not a complete list of key terminology for A level PE, but will cover topics when you begin the course.

The link below will help you with these:

<https://www.aqa.org.uk/resources/physical-education-and-sport/as-and-a-level/physical-education/teach/subject-specific-vocabulary>

Key Terminology	After GCSE I knew (if you don't know them due to being a new term, put an X, but learn them for September):			To help myself improve over the summer I...	At the end of the summer I know:		
	Definitions	Examples linked to this	How to apply appropriately		Definitions	Examples linked to this	How to apply appropriately
Altitude training							
Anticipatory rise							
Articulating bones							
Aterio-venuous oxygen difference (A-VO <sub>2</sub> diff)							
Axis							
Cardiac conduction system							
Excess post-exercise oxygen consumption (EPOC)							
Indirect calorimetry							

Lactate Threshold							
Oxygen deficit							
Plane							
Receptors							
Respiratory exchange ratio (RER)							
VO2 max							
Chronic injury							
High Intensity Interval Training (HIIT)							
Lever							
Objective data							
Reliability							
Qualitative							
Quantitative							
Subjective 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							