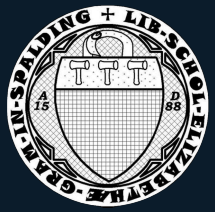
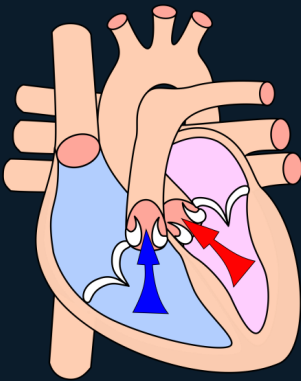


Spalding Grammar School Physical Education Department

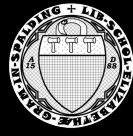


Anatomy & Physiology GCSE To A Level Transition Booklet:





Getting To Know You - Personal Reflections



Personal Reflection – Study Habits

In order to succeed in A Level PE you will need to learn, understand and relate to new theory concepts to relevant practical example and case studies. It is therefore, essential that we begin to understand how you work in order to fully utilise both your lesson and independent study time and for you to consider how you can improve your performance from GCSE to A Level. Consider the following questions, paying specific focus to your recent experience and work ethic through your GCSE's this summer.

Key Strengths

Task – In the space below, write a couple of comments about what you would consider your strength at GCSE Level (i.e. work ethic, well presented notes, good homework, good independent work)

Areas for Development

Task – In the space below, write a couple of comments about what you would consider your areas for development at GCSE Level (i.e. work ethic, well presented notes, poor homework, processing info, reluctance to ask question)

Teaching Strategies/Tasks/lessons

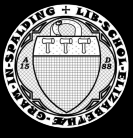
Task – In the space below, write a couple of comments about the type of teaching strategies, tasks, lessons that you have enjoyed and reinforced your learning (i.e. group tasks, practical activities, questions, pair/peer activities)

Revision

Task – In the space below, write a couple of comments about your methods of revision (i.e. what strategies served you well, what doesn't work for you)



Getting To Know You - Future Aspirations



Career Options with A Level Sport -

A Level PE is the next step in the education ladder before entering the real world of work or entering university. Therefore, it is vital that you start researching into potential future options/pathways to help inform your options/choices by the end of the course

Employment Strengths

Task – In the space below, write a couple of comments about your future aspiration & what your potential career could be (I.e. careers, aspirations after A Levels)

Employment – Research

Task – In the space below, write a couple of comments about what are the key aspects you would like in a job?

Employment Strengths

Task – In the space below, write a couple of comments about your future aspirations & What your potential career could be

Employment – Research

Task – Using the website(<http://careers-in-sport.co.uk>), find a potential career in sport, which is linked to your area of strengths and job aspect and research the following for that roles: what is the role, qualifications & accreditations, experience needed, Salary range

Further Education – University

Task – Visit www.ucas.com and search a term linked to one of your interests (i.e. football, sport, physiology) and find three different course related to your interest

1. University

2. University

3. University

Degree

Degree




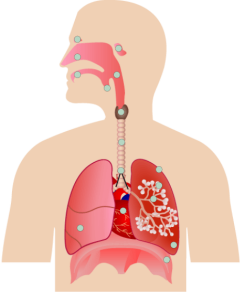

Degree

Task – Choosing one university from your UCAS (www.ucas.com) search, and using the points below, conduct a list of the benefits for applying for this university: Distance from home, course (what range of courses are available), location, cost (tuition fees, rent prices), reputation (ranking of university), facilities (student union, sporting facilities, residence), Work/volunteer placements (opportunities to gain work experience whilst studying)

Task – Using the key word & hints Bank, can you complete the following table (on the page after), Can you place the relevant words in correct boxes. Once you have placed the key term in the correct box, create research each systems role within exercise and research the definitions of each key term to create a definition glossary

Key Words Bank

Bodies Systems	Circulatory	Nervous	Muscular	Skeletal	Respiratory
Key Words	Anticipatory Rise	Vascular Shunt Mechanism	Vasoconstriction	Chemoreceptor	Baroreceptor
	Vasodilation	Myoglobin	Haemoglobin	Sympathetic system	Proprioceptor
	Oxyhaemoglobin	Venous return	Extension	Parasympathetic system	Tidal Volume
	Gaseous Exchange	Tidal Volume	Flexion	Antagonist	Agonist
	Eccentric	Concentric	Isotonic	Isometric	AV Node
	Vital Capacity	Residual Volume	Golgi Tendon	Motor unit	Tectonic Contraction

Task Box					
Body System					
Key Words					
Explain Systems Role During Exercise					
Definition Glossary					

AO1 Knowledge: Label the Muscular System with the following muscles:

Gastrocnemius, quadriceps, hip flexors, biceps Brachii, Triceps Brachii, Deltoid, Pectoralis Major, Pectoralis Minor, Adductor Longus, Tibialis Anterior, Soleus, Deltoid, Triceps Brachii, Latissimus Dorsi, Gluteus Medius, Gluteus Magnus, Gastrocnemius Soleus



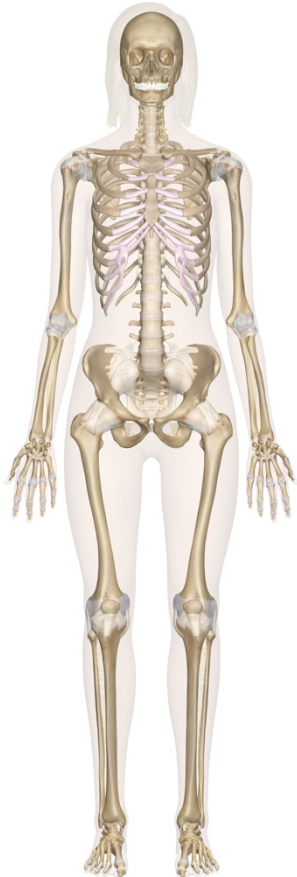
AO2 Application: The figure below shows a weightlifter performing a squat. Using the picture, identify the main agonist, type of muscle contraction occurring at the hip and ankle joints as the weightlifter performs the downward phase



Skeletal System

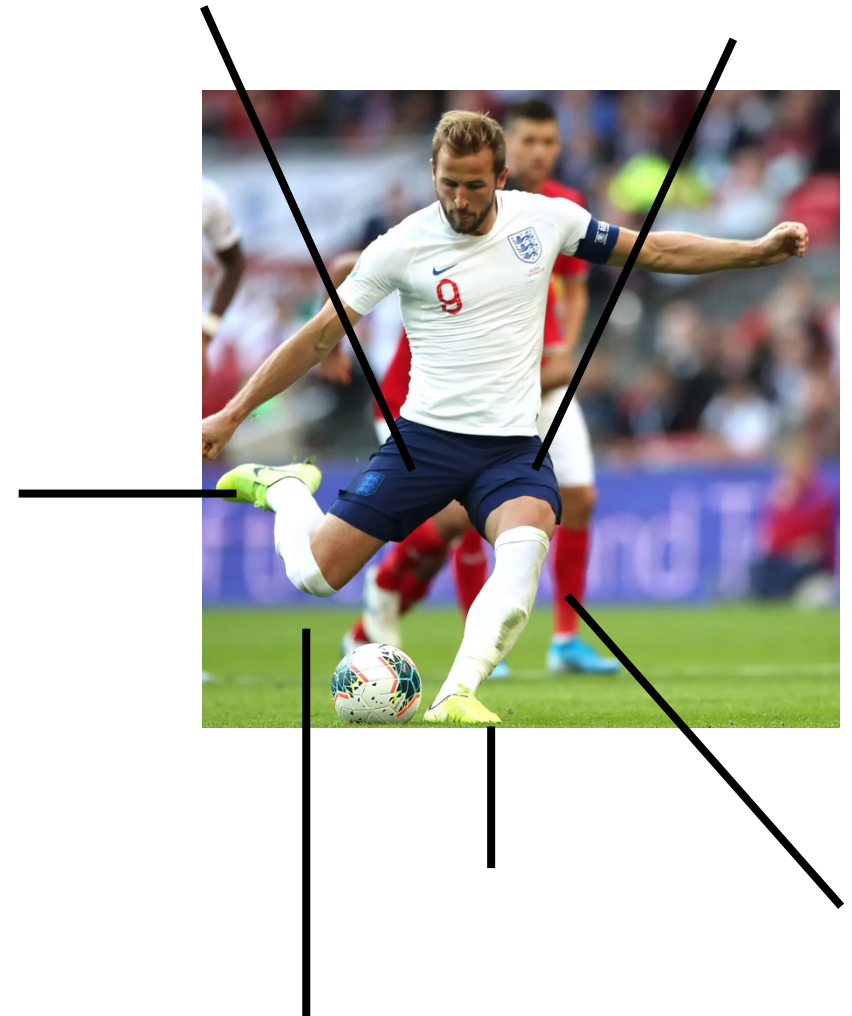
AO1 Knowledge : Label the skeletal System with the following bones:

Cranium, Mandible, Cervical Vertebrae, Clavicle, Scapula, Sternum, Ribs, Thoracic Vertebrae, Lumbar Vertebrae, Radius, Ulna, Carpals, Metacarpals, Phalanges, Femur, Patella, Tibia, Fibula, Tarsals, Metatarsals, Talus, Ischium, Coccyx, Sacrum, Pelvis, Humerus,



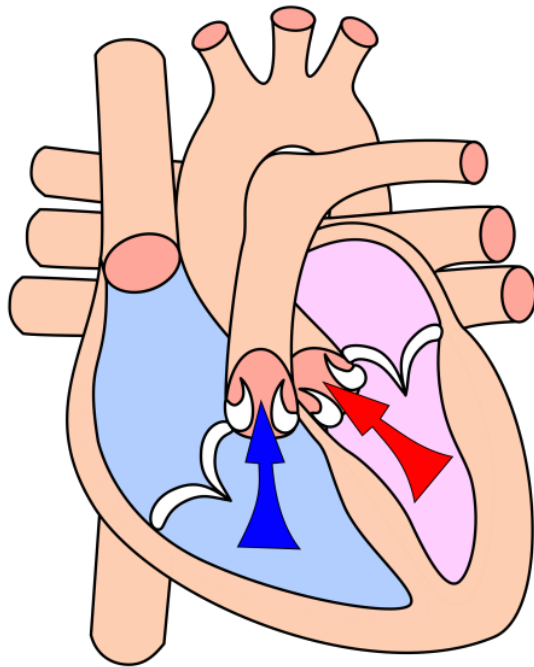
Knowledge Page

AO2 Application: Label the joint action taking part in the ankle, knee, hip in both legs



AO1 Knowledge : Label the structure of the heart:

Superior Vena Cava, Pulmonary Artery, Pulmonary Veins, right atrium, Tricuspid Valve, Right Ventricle, Vena Cava, Aorta, Left Pulmonary Artery, Left Pulmonary Vein, Aortic Semilunar Valve, Left Atrium, Bicuspid Valve, Left Ventricle, Interventricular Septum



AO2 Application: Red Blood Cell Taxi Journey:

1) Starting at the Vena Cavae, place the following structures in the correct order that a red blood cell would pass on its journey through the Heart.

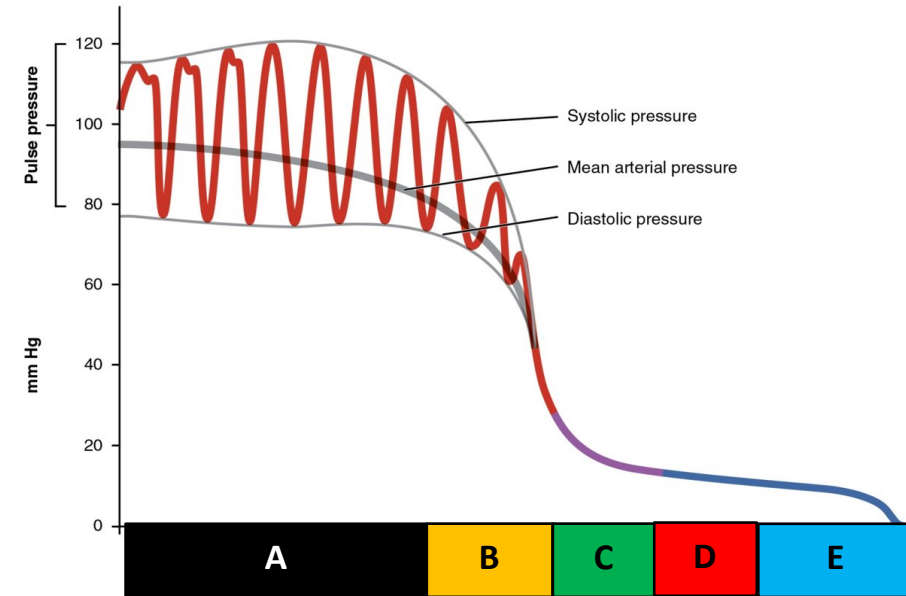
Structure Bank: Aorta, Pulmonary Vein, Left Ventricle, Right Ventricle, Right atrium, lungs, left atrium, tricuspid valve , bicuspid valve



AO1 Knowledge: Blood Vessels Table

Complete the table below relevant to Blood Vessels

Vessels	Characteristics	Functions
Artery		
Arteriole		
Capillary		
Venule		
Vein		



Questions

When involved in physical activity, a performer's blood velocity and pressure similar to the graph shown in the figure.

1) Using the graph, Identify blood Vessels A – E (5 Marks)

2) Explain the variation in blood pressure occurring from A – E (3 Marks)

Respiratory System

Knowledge Page

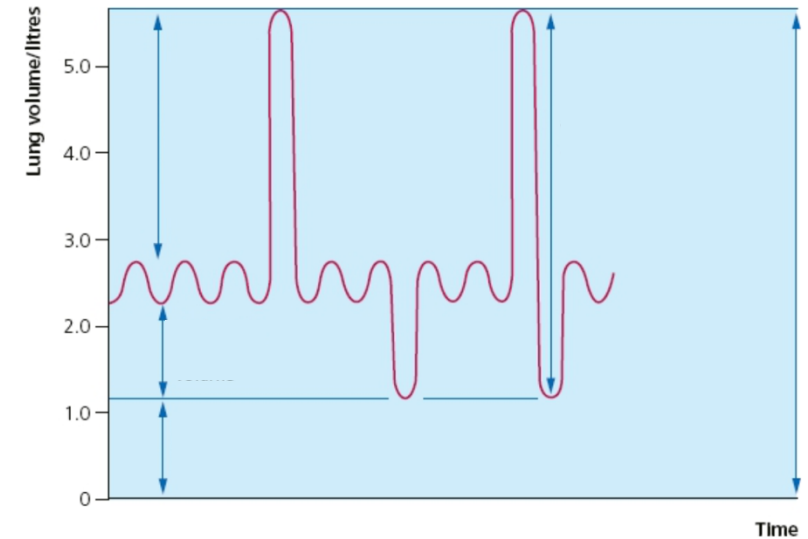
AO1 Knowledge: Lung Volumes & Spirometer

Complete the table below, providing the definition of lungs volume and change of these values during exercise

Lung Volume	Definition	Change During Exercise
Tidal Volume		
Inspiratory Reserve Volume		
Expiratory Reserve Volume		
Vital Capacity		
Residual Volume		

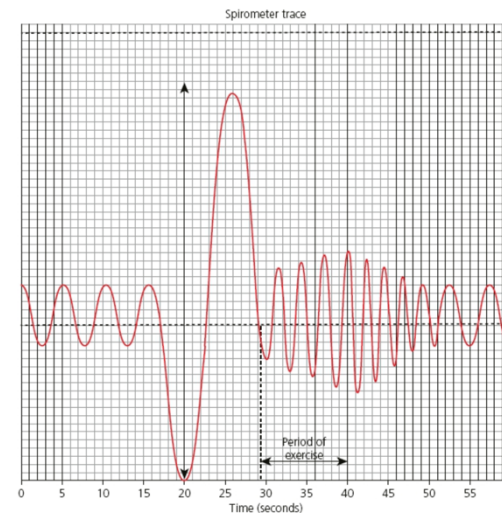
AO1 Knowledge: Lung Volumes & Spirometer

Identify the lung volumes from the previous task on the following spirometer trace:



AO2 Application: Question

When involved in physical activity, a performer's Tidal Volume will change similar to the spirometer trace below. Justify how this would impact a football player performance during a football game (3 Marks)








Fieldwork Scenario Task

It is peak season (Preparation phase) for the upcoming commonwealth games 2022 (Birmingham). You are Dr Michael Naylor (head of nutrition at the English Institute of Sport) and you have to provide a information sheet about sport supplements to athlete preparing for the commonwealth game to update their knowledge on modern nutritional needs and dietary plans, allowing them to win a gold medal at the commonwealth games 2022



Task

Create a poster/information sheet about dietary supplements relevant to current Olympic athletes competing in the commonwealth games Your poster should be specifically aimed at explaining and analysing the importance of one relevant dietary supplement (from the supplement bank below) to a relevant athlete (from the athlete bank below). This should include two athletes and two supplements and aim to include the following structure.

Commonwealth Games Athletes Bank				
	Katrina Johnson Thompson Hepathlon	Mo Farah Long Distance Runner	Laura Kenny Middle Distance Cyclist	Frazer Clarke Heavyweight Boxer

Sports Supplements Bank				
	Creatine	Caffeine	Sodium Carbonate	Carbohydrate Loading

Assessment Level	What are looking for
AO1 Knowledge (1 Mark)	Correct description of Supplement (what it does)
AO2 Application (1 Mark)	Explain why that supplements would impact that performer
AO3 Analysis/Evaluating (1 Mark)	Evaluate (positives & negatives) of using that certain dietary supplement
Presentation (1 Mark)	Quality of written work (theoretical written work) & how well the information is presented