

BTEC Level 3 National Certificate in Sport
Yr12 Bridging the Gap Task

The focus of this bridging the gap work is to allow you to begin to look at some key areas of Unit 1 (Antony and Physiology) in more detail and investigate some of the topics that will be studied during the BTEC Sport Course.

Bridging the Gap Scenario

You have been recruited to work alongside the team at TASS (Talented Athlete Scholarship Scheme) at the local University. You have been assigned a group of young athletes who show potential. This is their first time with TASS and as such will need educating on how their physiology can be affected by exercise and therefore aid performance. You have been asked to prepare an information pack to deliver to them as part of their induction. This information pack will need to include clear diagrams and essential information that the athletes are able to understand.

Section 1 – Skeletal System Task

The athletes need to know the major bones within their body. Can you find a diagram of a skeleton and label the following bones on it. You may need a front and back view.

Cranium	Clavicle	Humerus	Carpels
Metacarpals	Patella	Tarsals	Phalanges (2 locations)
Metatarsals	Fibula	Tibia	Femur
Pelvis	Radius	Ulna	Sternum

Section 2 – Muscular System

The athletes need to know the major muscles within their body. Can you find a diagram that shows the muscles of the body and label the following on it. You may need a front and back view.

Triceps	Deltoids	Pectorals	Biceps
Wrist Flexors	Wrist Extensors	Abdominals	Hip Flexors
Quadriceps	Hamstrings	Gastrocnemius	Soleus
Tibialis Anterior	Erector Spinae	Teres Major	Trapezius
Latissimus Dorsi	Obliques	Gluteus Medius	Gluteus Maximus

Extension Task – Can you label all 4 muscles of the Quadriceps and all 3 muscles of the Hamstrings?

Section 3 – Respiratory System

In order to help the athletes understand what is happening to their breathing when exercising can you explain what the following terms mean that are listed below?

Can you find a graph on which you can label all the terms on to help the athletes to understand further?

Are you able to say what will happen to each term when the athletes begin to exercise?

Extension task – Can you explain why these changes occur?

Respiratory Rate	Tidal Volume	Vital Capacity	Total Lung Volume
Inspiratory Reserve Volume	Expiratory Reserve Volume	Residual Volume	Minute Volume

Section 4 – Cardiovascular System

The athletes need to know about the structure of the heart. Can you find a diagram of the heart and label the following parts of it?

Right Atrium	Left Atrium	Right Ventricle	Left Ventricle
Tricuspid Valve	Bicuspid Valve	Pulmonary Valve	Semi-Lunar Valve
Vena Cava	Aorta	Pulmonary Vein	Pulmonary Artery

Your completed work should be with you in school from the start of September, ready to hand into Miss Clark in your first lesson with me.

During this first lesson you will also be discussing your findings with others in the class so make sure you know the information you have gathered in order to be prepared to answer questions on your work.

If you have any questions regarding any of the task's above, please don't hesitate to email me to ask for any help you may need in advance of your return in September – viclark@highdown.reading.sch.uk

I really look forward to seeing your work – Miss Clark