

OCR

A LEVEL

PHYSICAL

EDUCATION



Year 11 Bridging work

In order to help you make the best possible start to your studies, we have put together some bridging work that you will need to complete before September. Doing your best in this work will ensure you make the most of the early weeks, which we know are really important in getting the best you can from your studies.

**Cambridge Technical Extended
Certificate
Sport and Physical Activity**

Unit 1 – Task 1 - The Body Systems

For each of the following body systems, find a blank diagram and then label in your own handwriting – **do not** just find a labelled diagram on Google and print it off!

For the muscular system you may want to split into the identified joints and have separate labelled diagrams. There are quite a few muscles to label!

Axial skeleton

- Cranium
- Sternum
- Ribs
- Vertebral column
 - Cervical vertebrae
 - Throacic vertebrae
 - Lumbar vertebrae
 - Sacrum
 - coccyx

Skeletal system

- Scapula
- Clavicle
- Humerus
- Radius
- Ulna
- Carpals
- Metacarpals
- Phalanges
- Illium
- Ishium
- Pubis
- Femur
- Patella
- Tibia
- Fibula
- Tarsals
- Talus
- Metatarsals

Muscular system

- Shoulder – deltoid, latissimus dorsi, pectoralis major, trapezius, teres major
- Elbow – biceps brachii, triceps brachii
- Radio-ulnar – pronator teres, supinator muscle
- Wrist – wrist flexors, wrist extensors
- Vertebral column – rectus abdominus, erector spinae, internal and external obliques
- Hip – iliopsoas, gluteus maximus, gluteus medius, gluteus minimus, adductor longus, adductor brevis, adductor magnus
- Knee – rectus femoris, vastus medialis, vastus intermedius, vastus lateralis, biceps femoris, semimembranosus, semitendinosus
- Ankle – tibialis anterior, gastrocnemius, soleus

Cardiovascular system

- Atria
- Ventricles
- Bicuspid and tricuspid valves
- Pulmonary and aortic valves
- Aorta
- Venae cava
- Pulmonary vein

Respiratory system

- Nasal cavity
- Epiglottis
- Pharynx
- Larynx
- Trachea
- Bronchi
- Brochioles
- Alveoli

Unit 1 – Task 2 - The Body Systems

Now you have a comprehensive set of labelled diagrams of the body systems, you should produce a written report on the following body systems:

Skeletal system

Describe and explain the following functions of the skeleton

- Shape
- Support
- Protection
- Movement
- Blood cell production
- Mineral storage

Muscular system

Describe the following types of muscle function

- Agonist
- Antagonist
- Fixator

Describe the following types of muscle contraction

- Isometric
- Concentric
- Eccentric

Cardiovascular system

Describe the structure of the following blood vessels

- Arteries
- Arterioles
- Capillaries
- Venules
- Veins

Respiratory system

Explain the mechanics of breathing

- Inspiration
- Expiration

Describe and explain gaseous exchange at the alveoli

The following resources may help you complete these tasks:

http://www.bbc.co.uk/science/humanbody/body/factfiles/skeleton_anatomy.shtml

<http://humananatomybody.info/full-body-muscle-label/>

www.brianmac.co.uk

www.teachpe.com

www.livestrong.com

<https://www.ptdirect.com/training-design/anatomy-and-physiology/skeletal-muscle-roles-and-contraction-types>

<http://cliparts.co/heart-diagram-unlabeled>

