

PHYSICAL EDUCATION



Our two-year A-Level Physical Education; you will be covering content such as Anatomy and Physiology, Sport Psychology, Sport and Society, Biomechanics. You will be developing critical thinking skills of how science relates to sporting performance.

Scan for Specification

BEFORE YOU START

- Key textbooks to purchase: AQA A-Level Physical Education textbook 1 and 2 which relate to the papers (you can buy these from the college.)
- You will have access to ever learner to support your independent study at MV.

Our bodies are wonderful, and in sport and exercise, we need to breathe in air and breathe out air. This is so we can utilize oxygen for aerobic respiration and expel carbon dioxide as this is toxic to us.

Write down the basic equation for aerobic and anaerobic respiration.

Aerobic respiration:

Anaerobic respiration:

You need to know about gaseous exchange and the movement of oxygen and carbon dioxide at the alveoli and the muscle. If you don't know some of the key terms, research them.

Create a diagram that displays the movement of oxygen and carbon dioxide in the alveoli and red blood cells in the capillary and the muscle.

To show your understanding, make sure you label using the key terms to help you label your diagram.

Our respiratory system involves inspiration and expiration. These can be measured by a spirometer and traced on a graph.

Research the following key terms:

- Tidal volume
- Expiratory and Inspiratory reserve volume
- Residual volume
- Vital capacity

Draw your spirometer trace and show those terms, adding labels next to each representation on the graph.

Key terms

Oxygen low concentration
 Carbon dioxide Red blood cell
 high concentration
 Diffusion pathway
 Myoglobin Haemoglobin
 Muscle cell

The respiratory system is affected by many lifestyle factors such as diet, smoking, asthma, alcohol and exercise.

You need to design a PowerPoint on the effects of poor lifestyle choice – smoking.

This will include:

- 1) The labelled structure of the respiratory system.
- 2) The different number of effects smoking has on the the different structures within the respiratory system
- 3) How might it affect gaseous exchange of oxygen and carbon dioxide at the alveoli and the carrying capacity of oxygen in the blood?

Research and list 10 sport related **careers**.

Choose three from the list and outline the role and expectations in more detail

Review those three to show why you would be interested or suitable for that **career**.