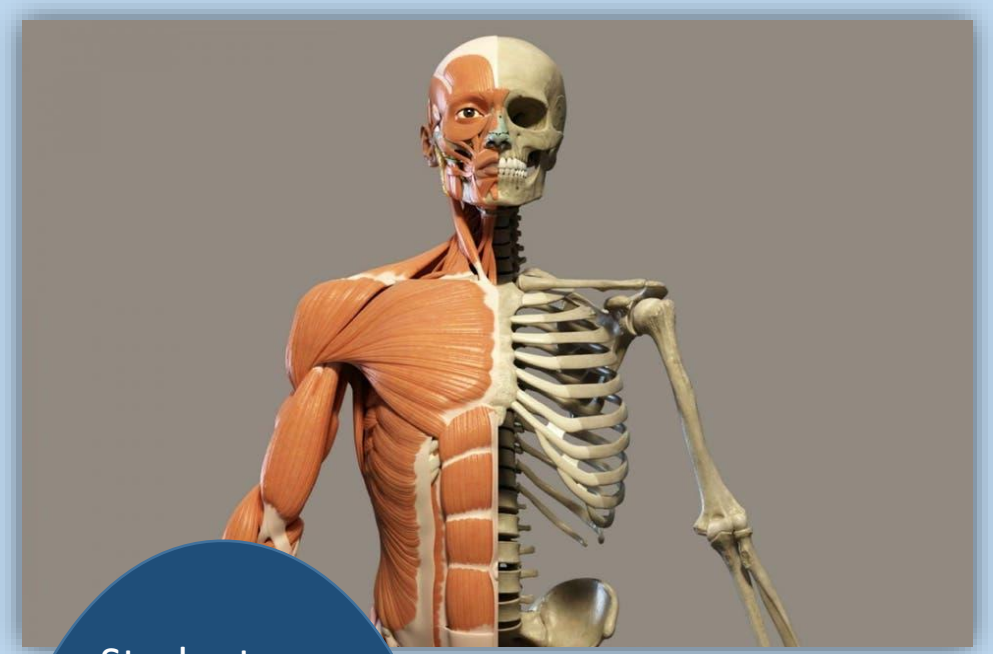
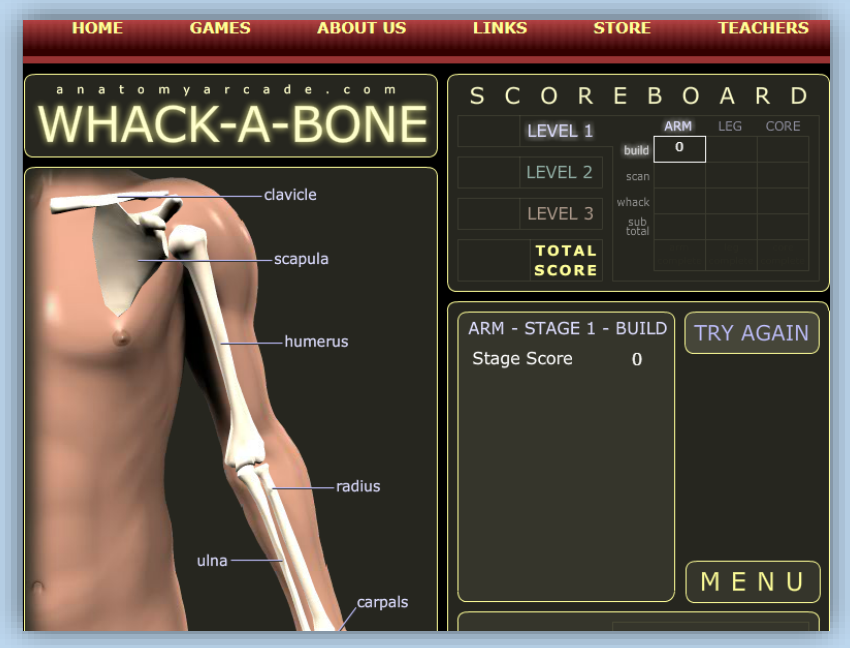
Welcome to BTEC Sport at Our Lady's Catholic College. My name is Mr Brench. As well as being subject leader for Physical Education, I teach two of the units on this course.


In year 12 you will study the two examined units and in year 13 the two units which involve assignments.

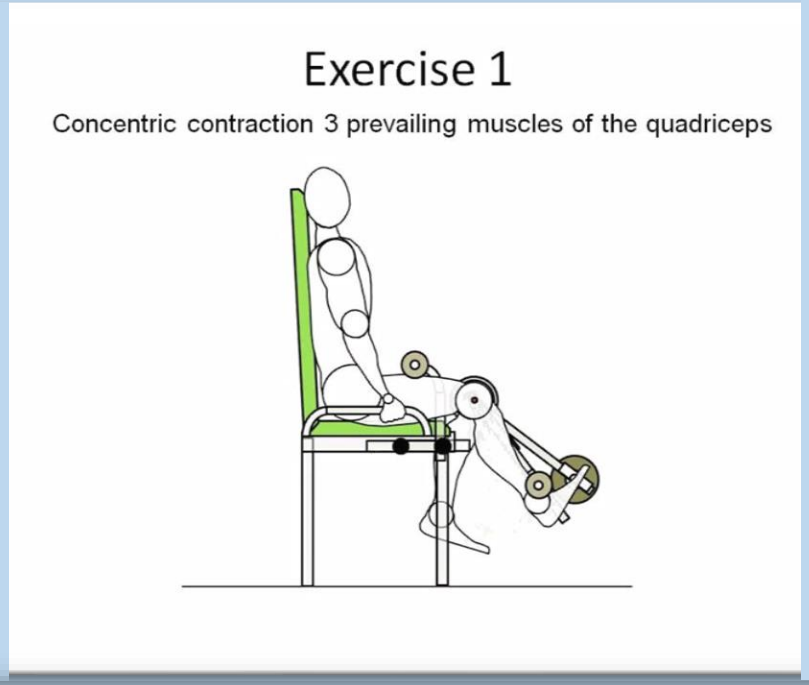


Hi, my name is Mr Hodgson. I will be teaching Unit 1 which is Anatomy and Physiology. I like to teach this through a variety of methods so that it maximises the chance of you embedding all the information needed to succeed in the exam.

Students say "I found it really useful to use the online apps like 'whack a bone'. It's actually quite addictive."




Minitests, practical memory tasks and online practice activities will help you remember the factual aspects of the course such as names of bones, muscles and joints etc.




We will use lots of sporting examples and scenarios to apply the factual knowledge and help you to answer the longer more complicated questions in the exam.

Students say "Trying to analyse sporting scenarios can be really tricky but satisfying when you realise you are right."

You will be able to analyse and evaluate why some sports performers are so effective and successful at what they do.

Unit 2 is about Healthy Lifestyles. We will look at how diet, physical activity, smoking, alcohol and stress can effect our Health which is vital for all of us in this modern and challenging world.

Students say "looking at the lifestyle factors made me realise I could make some lifestyle changes myself."

We will explore different case studies in order to understand the impact that these factors can have and the complex links between them.

The assessment for unit 2 involves us looking at a scenario which involves a specific individual. Students find this aspect of the course really interesting as there are often similarities with their own lives.

Students say "The different case studies are really interesting. You start to feel like you actually know the person and you want to help them."

The assessment asks us to analyse a client's lifestyle, highlighting the positive points and the areas for improvement. Often we will have to suggest improvements in their diet and realistic changes to their activity levels just like a personal trainer or health coach

Unit 3, which we study in Year 13 looks at employment opportunities in the sport sector. It encourages you to evaluate your skill set and helps with preparing and performing at interviews. Students often find this daunting at first but in the end see the benefit when applying for jobs or university courses.

Students say
"I enjoyed being an interviewer. It gave me an insight into what they are looking for at interviews"

The Final Unit we look at is about fitness testing. It links really well with Unit 2 and enables you to complete a series of fitness tests on a client and evaluate their performance.

Students say "Having to video the fitness tests really helps you to develop confidence in speaking in front of other people"

During this Unit you have to provide video evidence of you setting up and taking your client through the tests.

A visit to Lancaster University gives us a chance to explore a variety of career paths in the sport sector as well as seeing the lab testing facilities in action.


Students say
" The lab tests were really interesting and looked really complicated"

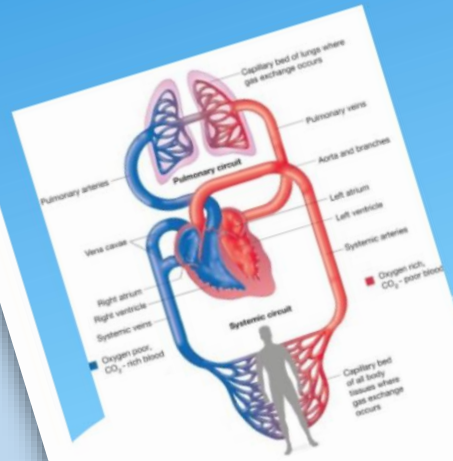
Students achieve really well on The BTEC Sport course. In most cases they gain a whole grade above their target grade and many use this to progress to Higher Education sport related courses such as sports science, coaching or even teaching.

Examples of student work

# ADAPTATIONS OF THE CARDIAC SYSTEM AND ITS LONG AND SHORT TERM EFFECTS

Sport presentation

Alice Auletta




## Why do these changes happen during exercise?

- Before exercise the anticipatory increases our heart rate in order to prepare for the increased demands that are about to be put in our body.
- Our heart rate increases in order to provide our muscles with more oxygenated blood.
- The cardiac output will increase as a result of increases in heart rate and/or stroke volume.
- Muscles contract more often and their temperature rise because of the burning of calories, the rapid supply of blood and oxygen and the repeated contractions caused by strenuous exercise.
- The blood temperature rises because the circulatory system work faster in order to provide our muscles with energy.
- The blood vessels under the skin will dilate in order to allow heat to be lost through sweating.
- Blood pressure increases as the heart is working harder to supply more oxygenated blood to the working muscles.
- The body redirect and redistribute the flow of blood in order to ensure that the maximum amount of oxygenated blood can reach the muscles. Other areas of the body that need less oxygen will receive less blood. The body does this through vasodilation and vasoconstriction.

Examples of student work

# tamins

Micronutrient

Vitamins are very important, non-calorific nutrients required in very small amounts. They perform specific functions and prevent particular diseases. The most of them cannot be produced by our body and must be supplied by your diet (A,B,C).

**Vitamin A**

It is important for the functioning of the eyes and respiratory tract. References daily intake: 600 µg.

**Vitamin B**

They (B1, B2, B3, B5, B6, B12) play an important role in releasing energy from food. References daily intake: between 6 µg, 1,4; 1,6; 2; 6;18 mg.

**Vitamin C**

They are essential for the functioning of collagen and are stimulant for the body's defence mechanisms. References daily intake: 75mg.

**Vitamin D**

They aid bone health helping with the absorption of calcium and phosphorus. It can be produced also by our skin due to the action of ultraviolet light (sun). Reference daily intake: 5 µg.

**Vitamins A and D** are in the **fat-soluble** group. They are found in fatty foods. One digested, they are absorbed and transported in the lymphatic system to the blood. They are insoluble in water, therefore they are not removed in urine and can build up adipose tissue in the liver.

**Vitamins B and C** are water-soluble. Excess vitamins of this type are eliminated in urine, because the body has limited stores for them, this means that you have to regular the intake of them. Many of them are destroyed by food processing and preparation.

**Reference Nutrient Intake (RNI)** is used for vitamins (also minerals) and is an estimate of the amount that should meet the needs of most of the people in the group. It was introduced by the Committee on Medical Aspects of Food and Nutrition Policy (**COMA**) in the early 1990s in the UK. It estimated nutritional requirements of various groups within the UK population.
These were published in the 1991 report Dietary Reference Values for Food Energy and Nutrients for the United Kingdom.

**Vitamin K**

This vitamin can be produced by the bacteria in the large intestine. References daily intake: 80 µg.

Key term - Adipose tissue
Tissue containing a high proportion of fat-storing cells that generally forms under the skin where it can act as an insulator or shock absorber.

Vitamins play an essential role to regulate the metabolic processes in our body ; they also support growth, the immune system and some produce hormones.
They are required in different amounts. A balanced and varied diet should supply the **right intake** of vitamins. Large amounts of vitamins can harm your health , because there are some vitamins such as fat-soluble vitamins that can be stored in your body.

# Fitness tests presentation

The person that I am going to test is called Faye Cheetham. She is 17 years old and she plays football as a defender twice a week. In addition, her current physical activity includes an hour per day of walking as well.

Football requires different types of skills such as **power, speed, agility, muscular endurance and co-ordination**. Therefore, I have chosen to test her the Multistage Test, which focuses on CV and muscular endurance, on t Test (30 m) to test her speed, One Minute Press Up test for muscular nce, Illinois Agility Run test to test her agility, Vertical Jump test to ower and the Wall-Toss test which concentrates on co-ordination.

h, I will give Faye a demonstration of each test before carrying n and if she would like me to, I will provide her with some ns.

s it, I will give her the possibility to do some practice