



Part 2

Transition work

Unit 1: Applied anatomy and Physiology

Task 1 – Functions of the skeletal System

This first task is to research and identify the 6 main functions of the skeletal system

1. **S** _____

The skeleton supports the muscles.

2. **P** _____

The skeleton protects delicate parts of the body like the brain.

3. **L** _____

Muscles are attached to the bones and once contracting allows movement.

4. **M** _____

A _____

The skeleton gives us our shape/size and creates levers.

5. **M** _____

S _____

Vital minerals such as Calcium and Phosphorus are stored in bones.

6. **B** _____

c _____

p _____

Blood cells are made in the bone marrow.

The next part of the task is to add some detail for each function from what you have researched.

1. **S** _____

The bones of the body are held together by _____.

The skeleton provides a framework for the muscles, which are attached to bones by _____.

2. **P** _____

Can you name the skeletal structures that prevent damage and injury to these vital organs:

Brain = _____

Heart / Lungs = _____

Vertebrae = _____

3. **L** _____

Can you explain (using the names of bones and muscles) how the following movements are brought about e.g *The (name of muscle(s)) pulls on the (name of bone(s)) to bring the*:

a) Striking a football at goal: _____

b) Shooting into a netball net: _____

c) Boxing punch (hook): _____

4. **M** _____ **A** _____

(nothing to add)

Task 2 – Muscular System

Muscle locations

This is quite a big task!

- Produce a labelled diagram or piece of work with separate diagrams of the following muscles to identify their location
- Identify the movements that the specific muscles produce

Deltoids

Biceps

Triceps

Wrist flexors

Wrist extensors

Supinators and Pronators,

Pectorals

Abdominals

Hamstrings

Gastrocnemius

Obliques

Quadriceps

Hip flexors

Tibialis anterior

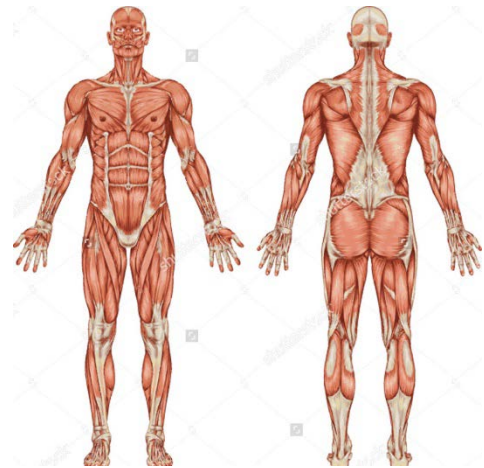
Erector spinae

Trapezius

Latissimus dorsi

Gluteals

Soleus



Task 3 – Respiratory System

Can you research a definition for the following lung volumes:

Tidal volume.

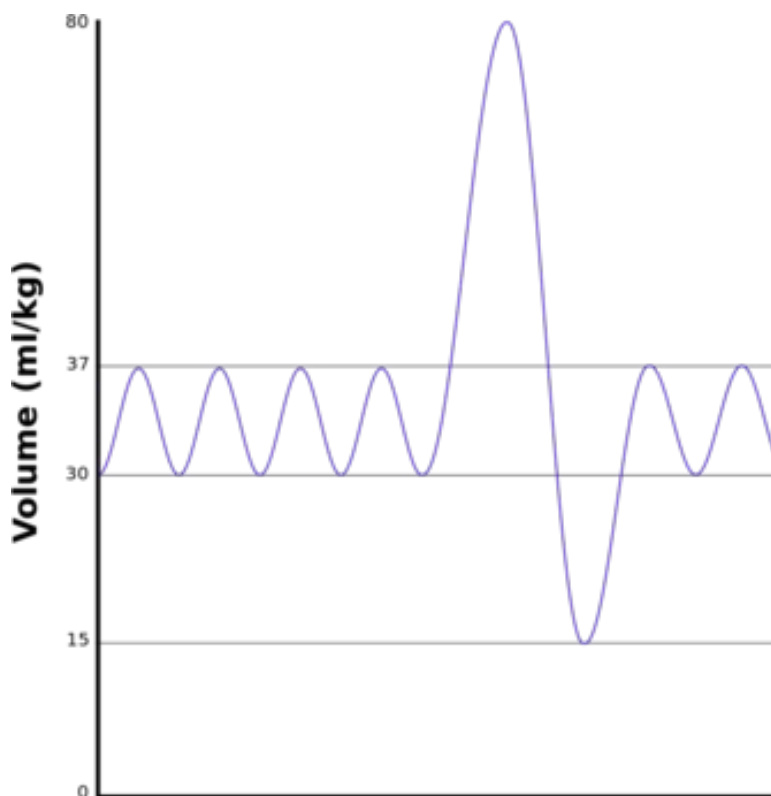
a) Vital capacity: _____

b) Residual volume: _____

c) Total lung volume: _____

d) Minute ventilation (VE): _____

Label on the diagram below where volumes a – c would be found



Task 4 – Energy Systems

Watch the following video:

<https://www.youtube.com/watch?v=s-eMUvpZa-g>

Research further and draw equations for the **exothermic** and **endothermic** reactions involved in breaking down and remaking (resynthesizing) Adenosine Triphosphate (ATP)

e.g ATP →

Can you explain what an exothermic and endothermic reaction is?

Exothermic reaction: _____

Endothermic reaction: _____

Unit 2: Fitness Training and Programming for Health Sport and Well-being

Lifestyle effects -

Task 1 - Thinking about a group of people taking part in the following activities please think of all of the possible reasons for the four areas (Physical, Psychological, Social and Economic).

<p><u>A group that are going walking</u></p> <p>Physical Benefit:</p> <p>Psychological Benefit:</p> <p>Social Benefit:</p> <p>Economic Benefit:</p>	<p><u>A group performing yoga</u></p> <p>Physical Benefit:</p> <p>Psychological Benefit:</p> <p>Social Benefit:</p> <p>Economic Benefit:</p>
<p><u>A group playing four-a-side basketball</u></p> <p>Physical Benefit:</p> <p>Psychological Benefit:</p> <p>Social Benefit:</p> <p>Economic Benefit:</p>	<p><u>A group completing a fitness circuit</u></p> <p>Physical Benefit:</p> <p>Psychological Benefit:</p> <p>Social Benefit:</p> <p>Economic Benefit:</p>

Potatoes, Chicken Breast, Milk, Carrots, Oily Fish, Bread, Whey Protein, Yeast, Porridge, Lean Red Meat, Lean Pork, Couscous, Bran Cereal, Salmon, Nuts, Kidney Beans, Yoghurt, Barley oats, Brown Rice, Parsnips, Leafy Green Vegetables, Oranges, Wholegrains Rice, Dried Fruit, Avocado, Egg Yolk, Cornmeal, Olive Oil, Processed Ham, Cheese, Lentils, Bananas, Bread.

Task 4 - Using the tables and foods above, decide what you think each person in the scenarios below should be eating to be at their best.

Scenario 1: A balanced diet (50% Carbohydrates, 15% Protein, <35% Fats, 30g Fibre & Vitamins and Minerals)

Scenario 2: A Weight Trainers diet (high levels of >15% Protein)

Scenario 3: An Endurance Athletes diet (high levels of >50% Carbohydrates)

Scenario 4: Extension- A diabetic's diet.

Task 5 –

There are many UK Government guidelines about maintaining health in relation to the following three categories. Using your research tools please fill in the boxes below with as much as information as possible on the guidelines for the set age ranges.

- Physical activity levels
- Alcohol consumption levels
- Healthy eating

Age Range	Physical Activity Level Guidelines Overview
New-born- 10 year old	
11 year old- 18 year old	
19 year old- 30 year old	
30 year old- 45 year old	
45 year old- 60 year old	
Over 60 year olds	

Age Range	Alcohol Levels Overview
New-born- 10 year old	
11 year old- 18 year old	
19 year old- 30 year old	
30 year old- 45 year old	
45 year old- 60 year old	
Over 60 year olds	

Age Range	Healthy Eating Overview
New-born- 10 year old	
11 year old- 18 year old	
19 year old- 30 year old	
30 year old- 45 year old	
45 year old- 60 year old	
Over 60 year olds	

Task 6 -

There are many different factors with different associated health risks attached to each lifestyle choice.

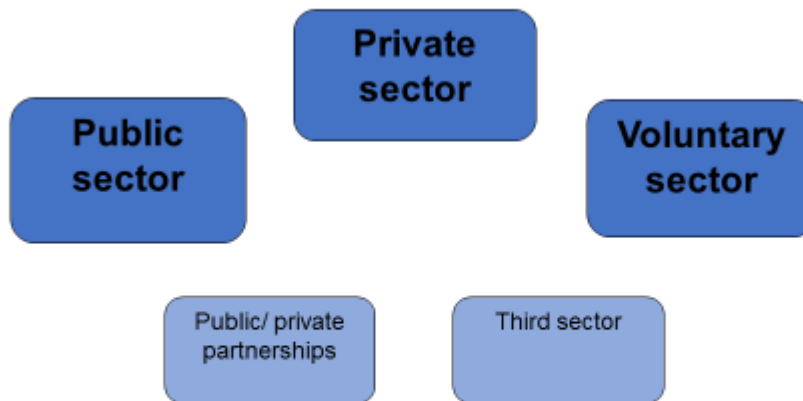
What are the short term and long term effects of poor lifestyle factors?

Smoking	Alcohol Consumption	Stress
Lack of Sleep	Sedentary Lifestyle	Diet

Unit 3: Professional Development in Sport Industry

Task 1 – Sectors in the sports industry

There are 3 main sectors in the sports industry and 2 additional smaller sectors:



Can you match up the statements to the correct sector in the table below

Usually rent facilities rather than own

Facilities are usually owned by the local council or local authority

Aims to make sport accessible to all

Aim to provide an excellent service

Usually owned by individuals or a group of shareholders

Has to meet targets for local participation

Usually for the use of members only

Some facilities are specialist in certain sports

Cover costs by collecting 'subs'

Usually involves local clubs or teams

Open to the general public

Members pay an initial joining fee followed by monthly membership fees

Public sector	
Private sector	
Voluntary sector	

Task 2 – Types of employment

Research the different types of employment available and complete the table using below giving a brief outline of each and an example of a career within the sports industry for each type of employment.

<i>Type of employment</i>	<i>Description</i>	<i>Example career/job</i>
Full-time		
Part-time		
Fixed-term contract		
Self-employed		
Apprenticeship		
Zero-hours contract		

Task: Six employees have been asked to give a brief explanation of their current employment situation. Based on what they have said match each statement to the type of employment you think they do from: **Self-employed, Apprenticeship, zero-hours contract, full-time, part-time and fixed-term** contract.

Employee 1: _____

"I work as a duty manager at a local leisure centre. My weekly hours usually consist of two early shifts (6 am – 2.30 pm), two daytime shifts which can include a weekend (9am – 5.30 pm) and one late shift (1.30pm – 10 pm). The days which I do my shifts over can vary but the number of each shift stays the same. Last month I was off sick for 3 days, I was too ill to work but I still got paid. I have a two week holiday booked with my family in August and I'm looking at booking the other two weeks of my holiday entitlement off around the Christmas holidays."

Employee 2: _____

"I work as a Netball Development Officer for England Netball. I started my job in May 2014 and I have signed a contract which ends in March 2018. I work 35 hours a week which are split over four days. I work unsociable hours working most evenings and weekends but my hours are flexible depending upon what I need to do. Last year I had 2 episodes of sickness, each time I was too ill to work but I still got paid."

Employee 3: _____

"I'm a student at Chester University. Every weekend I work as a lifeguard at a local swimming pool. I work 14 hours per week. I get an allocated number of holidays each year so I have to book time off if I want a weekend off."

Employee 4: _____

"I am a manager of a coaching company. I employ 12 part-time sports coaches who deliver coaching sessions during and after school in the local area. I set up contracts with local schools and they pay me to send my coaches in to deliver sports and activity clubs."

Employee 5: _____

"I work as a customer service assistant at Sports Direct. My manager rings me at the end of every week to let me know if I'm needed in work the next week. Sometimes she will ring me and ask me if I can work the next day but if I've already made plans I say no. Some months I can earn quite a bit of money but other months I earn barely anything."

Employee 6: _____

"I'm learning on-the-job to be a sports development officer. I work four days a week alongside experienced members of staff and I attend college every Friday. I get paid £3.50 per hour and I am entitled to 20 days holiday per year"

Task 3 – Career Pathway

To gain a career in the sports industry you will need to follow a pathway through to the end job (in most cases).

Research a job within the sports industry and map out the pathways needed to reach the end. An example is given below for a leisure manager:

Leisure managers are responsible for large numbers of employees with very different roles, from administrators and receptionists to catering and grounds staff, as well as the more traditional roles of lifeguard and recreation assistant.

Pathway

Experience in the leisure industry is important- this can be gained by working as a lifeguard, receptionist or leisure attendant.



Dedication to the company or centre can then lead to a role as a duty manager- this role involves dealing with customer issues and complaints, staffing issues, rotas and communication with staff.



Continue to gain experience in the leisure industry. Gain suitable qualifications to assist with moving up to the next level of management – degree in leisure management etc



Gaining the role of a leisure manager is more strategic and requires involvement in planning and making sure the leisure facility meets the participation targets in the most profitable way.

Unit 6: Sport Psychology

Scenario:

As a student actively involved in sport, and looking to become involved in coaching as a career option, you have been approached by a local sports club to help assist in trying to improve the performance of a team. Specifically you have been asked by the team manager to look at psychological factors that can influence performance. You are to research and produce an informative report summarising your findings on **stress** and its impact on sporting performance and competitive pressure.

Each section should **describe**, **explain** and **analyse** how each of the topic areas may impact performance in sport and the relationship between them.

Criteria covered by this task:	
Unit/Criteria reference	To achieve the criteria you must show that you are able to:
6/A.P2	Describe how differing levels of stress can affect sports performance.
6/A.M2	Explain how control of stress can impact on sports performance.
6/A.D1	Analyse the relationship of stress and its impact on sports performance.

Pass: Describe = Give a full account of all the information about a topic, including all relevant details of any features,

Merit: Explain = Make an idea, situational problem clear to your reader by describing it in detail, including any relevant data or facts.

Distinction: Analyse = Identify several relevant facts of a topic, demonstrate how they are linked and then explain the importance of each, often in relation to the other facts.

Definitions to consider the following:

- What is stress?
- Types of stress – eustress and distress
- Four stages of the stress process
- Increases in cortisol and adrenaline levels to mobilise the body for ‘fight or flight’
- Cognitive response
- Somatic responses
- Behavioural responses
- Consequences of stress

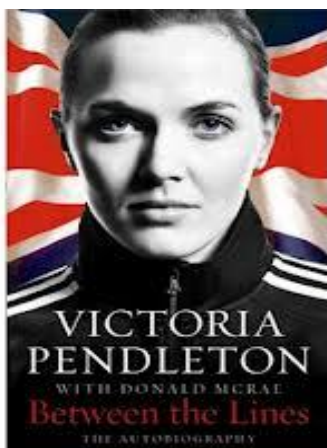
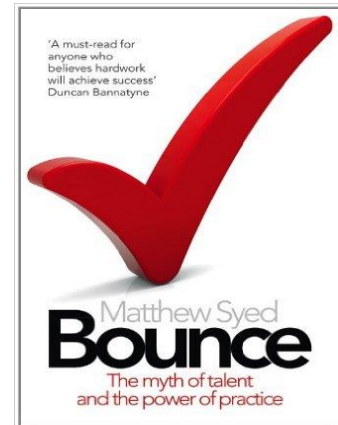
You need to link it to the sports club which you have chosen and reference must be made to this through giving sporting examples throughout. For example: If you are doing this for Future Print Netball Club, you will need to give examples linked to netball competitively and elite level.

Book Recommendations

Kick back this summer with a good read. The books below are all popular sport books and great for extending your understanding of Sport.

Matthew Syed, *Bounce*

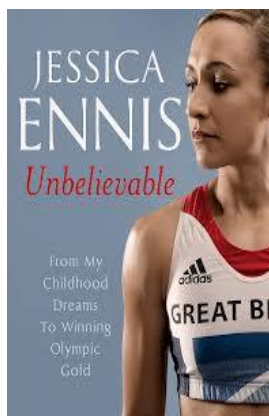
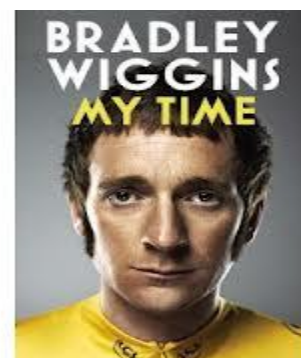
If you've ever wondered what makes a champion, *Bounce* has the answer. What are the real secrets of sporting success, and what lessons do they offer about life? Two-time Olympian and sports writer and broadcaster Matthew Syed draws on the latest in neuroscience and psychology to uncover the secrets of our top athletes and introduces us to an extraordinary cast of characters, including the East German athlete who became a man, and her husband – and the three Hungarian sisters who are all chess grandmasters. *Bounce* is crammed with fascinating stories and statistics. Looking at controversial questions such as whether talent is more important than practice, drugs in sport (and life) and whether black people really are faster runners, the mind-bending *Bounce* is a must-read for the hardened sports nut or brand new convert.



Victoria Pendleton, *Between the Lines: MY Autobiography*

The Golden Girl of British cycling opens up, for the first time, in searingly honest detail about what drives her to compete in a sport she no longer loves. Written with Donald McRae, 2 time winner of the William Hill Award, "Between the Lines" is THE Olympic autobiography. Victoria Pendleton MBE is not your typical female athlete. Admired as much by the weekly glossies as she is the newspaper back pages, she transcends her sport.

Bradley Wiggins, *My Time* On 22 July 2012 Bradley Wiggins made history as the first British cyclist to win the Tour de France. Ten days later at the London Olympic Games he won the time trial to become his country's most decorated Olympian. In an instant 'Wiggo', the kid from Kilburn was a national hero.

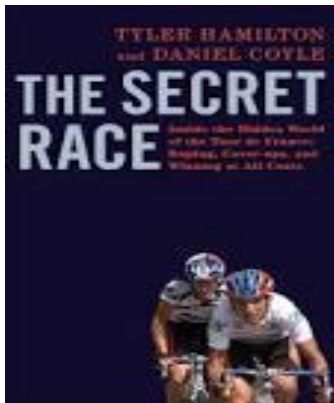


Jessica Ennis, *Unbelievable; From my childhood dreams to Winning Olympic Gold* What drives Jessica Ennis?

On 4 August 2012 Jessica Ennis kicked off what some described as the greatest night in British sporting history. For her it was the end of a long, winding, and sometimes harrowing road. Hers is an inspiring tale of following your dreams no matter what life throws at you.

Richard Fitzpatrick, El Clasico – Barcelona v Madrid, Footballs Greatest Rivalry

Barcelona and Real Madrid: two of the most powerful and popular clubs in world football, and one of the world's most bitter sporting rivalries. Going far beyond the boundaries of just sport alone, this is a rivalry at the heart of Spanish life, taking in politics and culture and splitting a country in two. This is a story with resonance around the sporting world, with many instantly recognisable figures to an international audience such as Jose Mourinho. But it is also a tale of a country divided by a bitter rivalry.



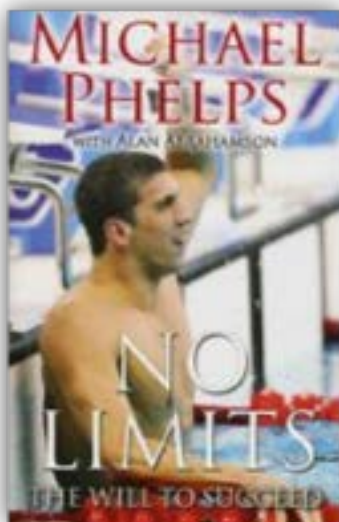
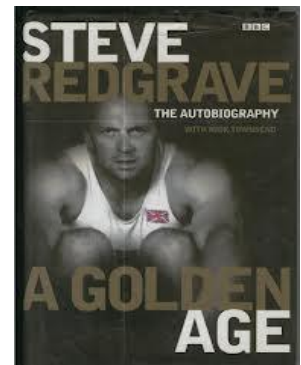
Tyler Hamilton, The Secret Race

WINNER OF THE WILLIAM HILL SPORTS BOOK OF THE YEAR AWARD 2012

On a fateful night in 2009, Tyler Hamilton and Daniel Coyle met for dinner in Boulder, Colorado. The two had met five years before while Coyle was writing his bestselling book, *Lance Armstrong: Tour de Force*. But this time, Tyler had something else on his mind. He finally wanted to come clean, about everything: the doping, the lying, his years as Lance Armstrong's teammate on U.S. Postal, his decade spent running from the truth. 'I'm sorry,' he told Coyle. 'It just feels so good to be able to talk about this. I've been quiet for so many years.'

Steve Redgrave, A Golden Age

Stev's fascinating autobiography tells the story of an outstanding sporting career, from his first contact with rowing as a 13-year-old schoolboy, through his battle with diabetes and colitis. He discusses his rowing partnership with Matthew Pinsent and describes the extreme pressures and emotional conflicts that can cement or destroy a team. He speaks too of his struggle to preserve a balanced family life in the face of an extraordinarily intensive training programme and reveals both the mental and physical pain that go hand in hand with being a world champion.



Michael Phelps, No limits

Michael Phelps is one of the greatest competitors the world has ever seen. From teen sensation in Sydney, to bona fide phenomenon in Athens, he is now - after the Beijing Games - a living Olympic legend. With an unprecedented eight gold medals and seven world-record times, his performance at the 2008 Games set a new standard for success. In *No Limits*, Phelps reveals the secrets to his remarkable success, from his training regimen to his mental preparation and, finally, to his performance in the pool. Having been raised by a single mother and diagnosed with ADHD, Phelps's success is imbued with defeating obstacles and earning one's way and *No Limits* explores the hard work, commitment, and sacrifice that go into reaching any goal. Filled with anecdotes from family members, friends, team mates, and his coach, *No Limits* gives a behind-the-scenes look at the makings of a real champion, and reveals a step-by-step guide to realizing one's dream.

Movie Recommendations

Everyone loves a good story and everyone loves some great science. Here are some of the picks of the best films based on real life scientists and discoveries. You won't find Jurassic Park on this list, we've looked back over the last 50 years to give you our top 5 films you might not have seen before. Great watching for a rainy day.



The Blind Side

"The Blind Side" depicts the story of Michael Oher, a homeless African-American youngster from a broken home, taken in by the Touhys, a well-to-do white family who help him fulfill his potential. At the same time, Oher's presence in the Touhys' lives leads them to some insightful self-discoveries of their own. Living in his new environment, the teen faces a completely different set of challenges to overcome. As a football player and student, Oher works hard and, with the help of his coaches and adopted family, becomes an All-American offensive left tackle.

Invictus

On 11 February 1990, Nelson Mandela is released after twenty-seven years imprisoned in Robben Island. In 1994, he is elected President of South Africa and he tries to unite his nation that is divided by the apartheid. Around the time of the Rugby World Cup in 1995, held in South Africa, Nelson Mandela invites the captain of the Springboks François Pienaar to come to the government palace for a tea and inspires François to win the championship with his team.



Bend it like Beckham

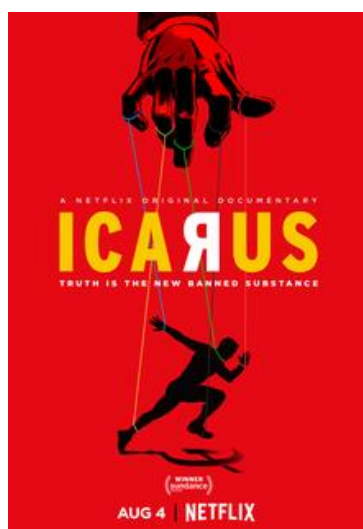
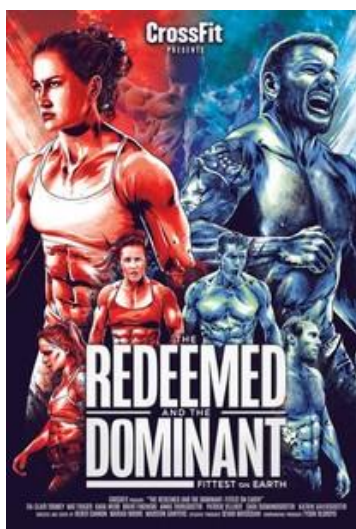
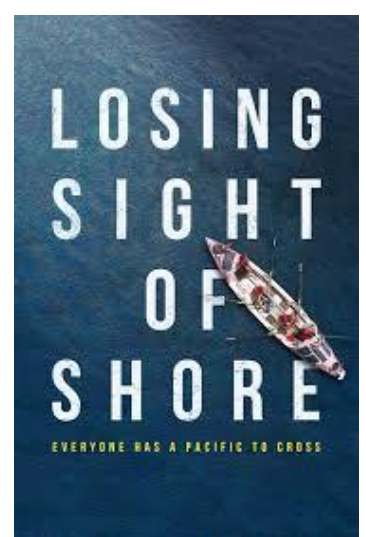
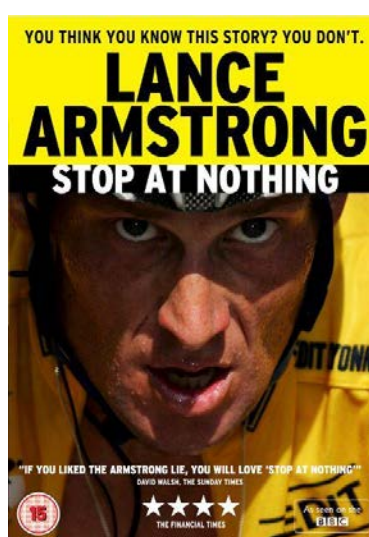
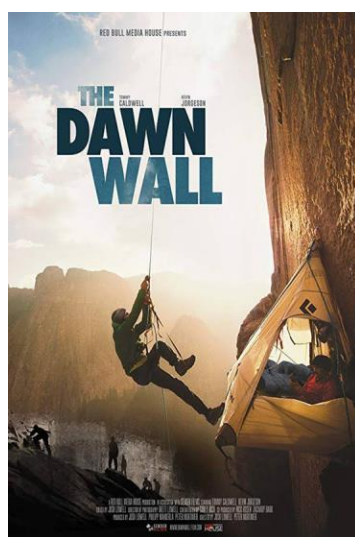
Jess Bhamra is a teenager with only one real passion in her life: football. She daydreams of being a great soccer star and her hero is David Beckham. She soon strikes up a friendship with Juliette Paxton, Jules to her friends, and joins a girls team coached by the rather handsome Joe. She comes from a traditional, close-knit and loving Sikh family. Her parents only want the best for both of their daughters but Jess' fascination with sports doesn't fit into their idea of a young woman's future. Jess isn't comfortable sneaking about and she and Jules fall out when they both take an amorous interest in Joe. With her sister's wedding on the same day as the football final, where a US College scout will be present to assess her performance, Jess must decide if she will support her family or her friends.



NETFLIX AND LEARN

by HUSTLE

Here are some of our favorite Netflix documentaries that really demonstrate some of our key A-level themes such as performance enhancing drugs and sports psychology.



PE websites

These websites all offer an amazing collection of resources that you should use again and again throughout your course.

www.aqa.org.uk/subjects/physical-education <http://www.pe4learning.com/flippedlearning/>
<http://subjectrevision.co.uk>

Physiological areas

www.pponline.co.uk

www.brianmac.co.uk

www.sport-fitness-advisor.com

www.getbodysmart.com

www.innerbody.com