



Year 11 into 12 Summer Transition Tasks

The IB DP course in Sports, Exercise and Health Science (SEHS) involves the study of the science that underpins physical performance. The course incorporates the traditional disciplines of anatomy and physiology, biomechanics, psychology and nutrition. This provides an opportunity to acquire the knowledge and understanding necessary to apply scientific principles and critically analyse human performance. Where relevant, the course will address issues of international dimensions and ethics by considering sport, exercise and health relative to the individual in a global context.

Website recommendations:

Take a look at the videos and read the information on these websites:

[Teach PE](#)

[Brain Mac](#)

[ESPN Sport](#)

[NBC Learn](#)

[Journal Sport science](#)

[Peak Performance](#)

[Sports Injury](#)

[Get Body](#)

[Health and Medicine](#)

Book recommendations to challenge and extend:

'The Talent Code' - Daniel Coyle

'The Sports Gene' - David Epstein

'A Champion's Mind: How Great Athletes Think, Train and Thrive' - Jim Afremow

SEHS IB Textbook (Topics 1-6) [Textbook](#)

When answering extended questions it is important that you are up to date with modern sporting events and issues, so collect newspaper / magazine articles of major events that you could use as practical examples in your writing.

[The Journal of Physiology](#)

[PubMed](#)

[Google Scholar](#)

[Journal of Strength and Conditioning Research](#)

[Human Kinetics Journal](#)

Topic 1: Anatomy

Using the photograph of Raheem Sterling, give a detailed analysis of movement for all aspects of the specific skill that he is preparing to perform. Details should include: - The relationship between the muscular and skeletal systems to meet the demands of exercise. - Joints, bones and movements. - Muscle contractions.

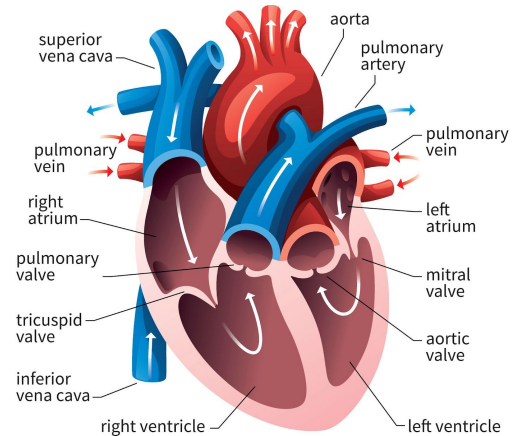


Topic 2: Exercise Physiology

Topic 2 Pre Quiz

Pre-test quiz - Knowledge recall - How much of this can you recall?

[How the Heart Works](#) - Learn the heart!

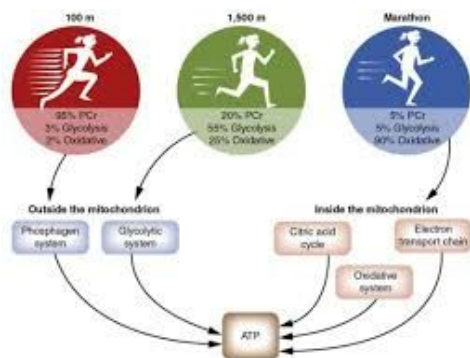


Topic 3: Energy Systems

Energy Systems

Make notes on the video clip for the 3 systems:

- ATP-PC
- Lactic Acid System
- Aerobic System



Topic 4: Movement Analysis

Research motion and movement. Summarise the information in these three video clips.

[Bernoulli principle](#)

[Physics behind the perfect dive](#)

[Athletes and Physics](#)



Topic 5: Skill in Sport

Effective sports performers, like Raheem Sterling use a process called selective attention.

- Explain the term selective attention.
- Describe how selective attention can be developed.
- Evaluate the effectiveness of and benefits of this process in helping Sterling to make decisions.



Topic 6: Measurement of Human Performance

Sport science Topic 6

A good website outlining several areas of the course. Apply this information to a sporting athlete of your choice.



Option A

Overtraining?

Distinguish the differences between Training, Overreaching and Overtraining?



Option C

What is obesity?

Click on the link and then summarise the main information in 10 bullet points.



Higher Level Topics Only

Topic 7 - Further Anatomy (Skin and Brain)

Topic 8 - Endocrine System

Topic 9 - Fatigue

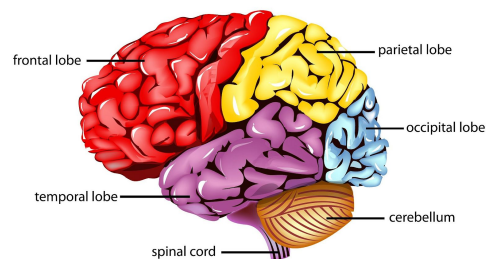
Topic 10 - Friction and Drag

Topic 11 - Skill Acquisition and Analysis

Topic 12 - Genetics

Topic 13 - Exercise and Immunity

Parts of the Human Brain



Task:

Produce a glossary. Create 5 key words from each topic area.



Higher Order Thinking: What does this illustration represent in terms of SEHS?

