A Level PE

Summer Bridging Work

The A Level PE course is made up of the following sections

- Applied Anatomy and Physiology
- Skill Acquisition
- Sport and Society
- Exercise Physiology
- Biomechanical Movement
- Sport Psychology
- The Role of Technology in Sport

Instructions

- Read through all of the tasks.

- Choose **at least one** to complete from each section.
  - Section A – Anatomy and Physiology (starts on slide 4)
  - Section B – Sport Psychology (starts on slide 8)
  - Section C – Sport and Society (starts on slide 12)

- You may choose to complete more if you wish – the more you do, the better prepared you will be!

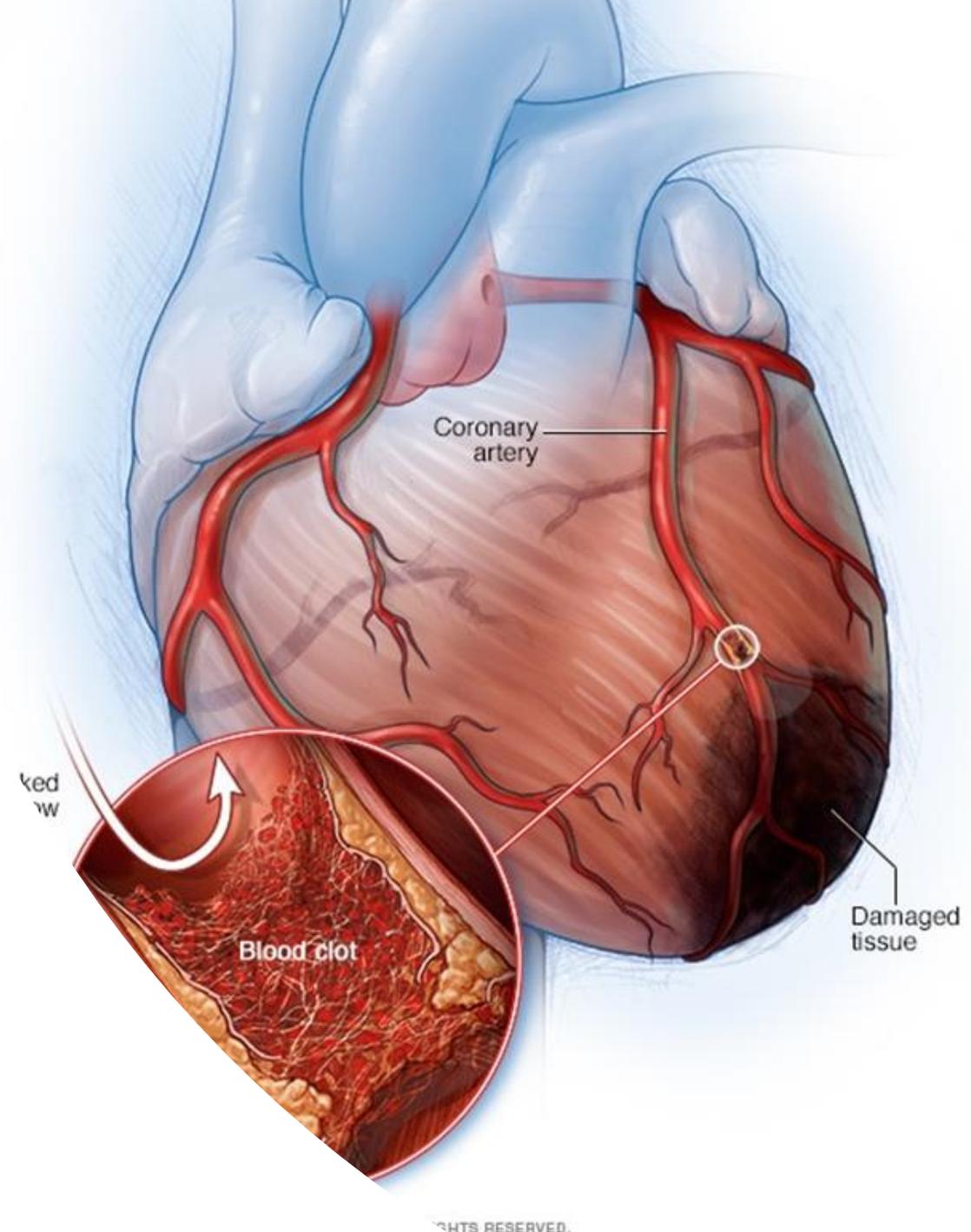- Please bring all completed work to your first A Level PE lesson.

Section A

Anatomy, Physiology and Biomechanics
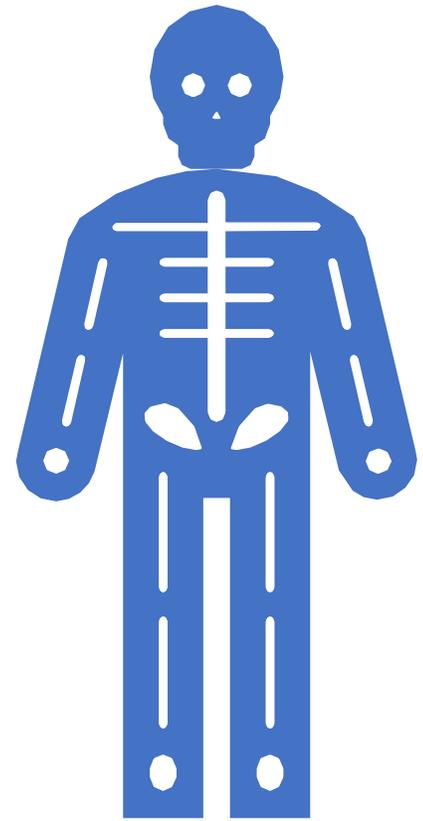
The impact of physical activity on cardiovascular health.

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- https://www.bhf.org.uk/informationsupport/conditions/heart-attack

- Watch the link. Use other websites to help if needed.

- Answer the following:
  - What is atherosclerosis?
  - What is an atheroma?
  - What is angina?
  - What is a heart attack?
  - What is a stroke?

- What <u>causes</u> a heart attack? Draw a flow diagram to show what happens.

- <u>Extension Task:</u> How does exercise reduce the risk of developing CHD?

Coronary artery

Damaged tissue

Blood clot

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Movement Analysis

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- https://www.youtube.com/watch?v=Wj7RbJVXTxk

- What somatotype is most beneficial for a high jumper and why?

- Watch the video carefully at the point of take-off. Analyse the movements in the legs and arms.
    - What movements are occurring (flexion, extension etc…)
    - What muscles are causing these movements?
    - In which planes and axes are these movements taking place.

- Extension Task: Research Newton's three laws of motion.
    - Can you apply them to a high jumper at the point of take off?

Diet and Nutrition

- Identify the seven classes of food – what is the exercise-related function of each one? What is the source of each one? (eg: carbohydrates can be found in pasta and bread).

- You will need to break "vitamins" down in to the following:
  - Fat-soluble vitamins: A, D, E and K.
  - Water-soluble vitamins: B vitamins and C.

- Extension Task: Diet can be manipulated to improve performance. Choose one of the following to research:
  - Glycogen loading
  - Creatine monohydrate
  - Sodium bicarbonate (method known as "soda loading")
  - Caffeine

For your chosen one, explain how it is used to improve performance and what kind of athlete would benefit from it's use. What are the negative side effects associated with it?

Psychology

Section B

Anxiety in sport

▶ **Research and answer the questions below;**

1. What is <u>Somatic anxiety</u> and give examples?

2. What is <u>cognitive anxiety</u> and give examples?

3. What could an athlete do to try and reduce this?

▶ There is a test called the 'SCAT' test which measures anxiety.

▶ **You need to complete the 'Competitive Sport Anxiety Test'**

▶ Follow this link https://www.brianmac.co.uk/scat.htm

▶ You will have a SCAT score generated from this.

Aggression in sport

► Watch this video clip of the Haka https://www.youtube.com/watch?v=yiKFYTFJ_kw

► Watch the first minute of this clip, what is the difference?

► https://www.youtube.com/watch?v=PJiRQsyrBoI&list=PLbba3HDdb2K58wCVTSQBykmTiBFzvjbjx

Research and answer these questions;

1. What is aggression?

2. What are some of the causes of aggression?

3. Give examples of aggression.

4. What is assertion?

5. Give examples of assertion.

Motivation

- What motivates you to get out of bed in the morning?

- Are there any similarities and differences between what motivates you and Serena Williams to get out of bed in the morning?

- **Answer these questions;**

1. What is motivation?

2. What is intrinsic motivation?

3. What is extrinsic motivation?

4. What are tangible and intangible rewards?

Ensure you give examples in your answers.

Sport and Society

Section C

Activity 1

Disability and sport

Watch the short clip on the Paralympics

https://www.youtube.com/watch?v=6RMOSDynkw8

Followed by this clip on disability sport

https://www.youtube.com/watch?v=oHNjHwFj3jQ

Complete some extended research on the barriers that people with disabilities face when trying to start exercising or become professional sportspeople.

- Create a presentation to show your findings, listing your sources as well.

Activity 2

The origins of football

The original game of football is a far cry from the organised and structured version we are familiar with.

Research and make comparisons between the original 'mob football' and the modern version.

- Create a comparison table of the two sports.

Hint – Shrovetide football is a good representation of what it used to look like!