

L3 OCR Cambridge Technical In Sport and Physical Activity

Summer Work 2020

Research individually the **skeletal, muscular, cardiovascular, respiratory and energy** systems.

- What are the components of each system?
- What functions does the system carry out for us, particularly as sports people?
- How does each system work?
- What are the short term effects of exercise on each system? So, from a few minutes before starting to 10 minutes after you have finished, what changes occur within that system?
- What are the long term effects of exercise on each system? So, if you completed an exercise programme for 6 weeks or more, how would the components of each system change over that time? Some systems will have greater obvious changes than others.

Try to use the information that you have found to help you answer these exam style questions below.

1. A sports team that you are coaching is not taking warm ups seriously before training sessions. Explain the effects of a warm up on the cardiovascular and muscular systems and how they may be beneficial to the individuals you are coaching. (10 marks)
2. An active, healthy lifestyle has positive effects on the skeletal system but can also be potentially damaging. Describe the benefits and drawbacks of exercise on the skeletal system. (5 marks)
3. Explain the changes in the performer's heart rate before, during and after exercise. (6 marks)

4. Complete the table below to identify the structure of the heart which relates to each function. (4 marks)

Structure of heart	Function
.....	Allows blood to pass from the left atrium to the left ventricle but closes to prevent backflow of blood.
.....	Receives de-oxygenated blood from the vena cava
.....	Carries oxygenated blood from the lungs to the heart
.....	Contracts to pump de-oxygenated blood to the lungs