

GCSE PE Homework Booklet – Term 1

Task 1:

Learn the keywords on this term's knowledge organiser. These will feature in this term's knowledge recall starter activities. You could read through the words, write them out, create a match up activity or get someone to test you.

Task 2: (to be completed at the end of a topic - your teacher will inform you of the date.)

Complete the practise exam questions on page one of this terms knowledge organiser.

Task 3:

Update your practical performance activity log.



Levers

There are 3 types of lever and each has a fulcrum, load and effort. You need to be able to; draw each type of lever and give a sporting example and be able to explain mechanical advantage is. **ALWAYS start by writing down:**

- 1 – F
- 2 - L
- 3 - E

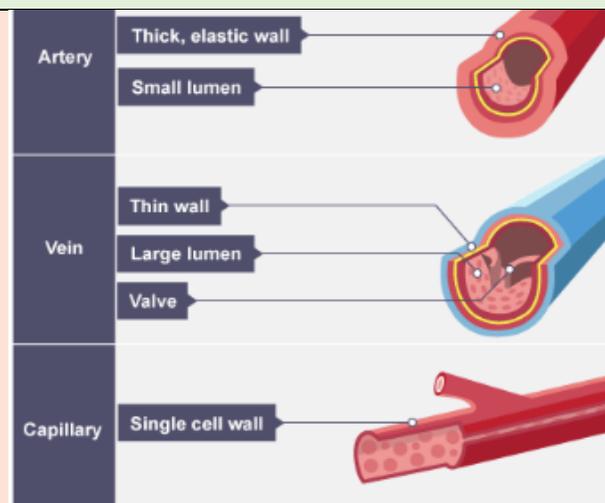
1 – F (1st class lever has the Fulcrum in the middle)
 2 – L (2nd class Lever has the Load in the middle)
 3 – E (3rd class lever has the effort in the middle)

Possible Lever exam questions:

- Give an sporting example of a 1st class lever (1 mark)
- Give an sporting example of a 2nd class lever (1 mark)
- Give an sporting example of a 3rd class lever (1 mark)
- Describe the difference between a second and third class lever (4 marks)
- Define mechanical advantage (1 mark)
- Draw and accurately label a 1st / 2nd / 3rd class lever (1 mark each)

Introduction to the Cardiovascular system.

You need to know the difference between Arteries, Veins and Capillaries.



	Artery	Vein	Capillary
Function	Carry blood away from the heart (usually oxygenated blood, except for the pulmonary artery)	Carry blood towards the heart (usually deoxygenated blood, except for the pulmonary vein)	Allows diffusion of gases and nutrients from blood into the body cells
Wall	Thick, muscular	Thinner	Very thin, one cell thick
Lumen	Small	Large	Very small, only allows blood to pass through one cell at a time
Other features	Thick muscular walls to withstand blood flowing at high pressure as it leaves the heart; the largest artery is the aorta	Contain valves to prevent back flow of blood	Walls are made of semi-permeable membrane to allow transport of gases and nutrients into and out of the blood

Fulcrum (F)	Effort (E)	Load (L)
A fixed pivot point 	The source of energy that will be applied 	The weight/resistance to be moved

- Header in football
- Jumping in Long Jump
- Bicep curl

Classes of lever

<p>First class lever:</p>	<p>Drawing</p>	<p>Example</p>
<p>Second class lever:</p>		
<p>Third class lever:</p>		

Top tip: as long as you know 1,2,3 – F,L,E you should be able to draw the diagram.

Cardiovascular system.

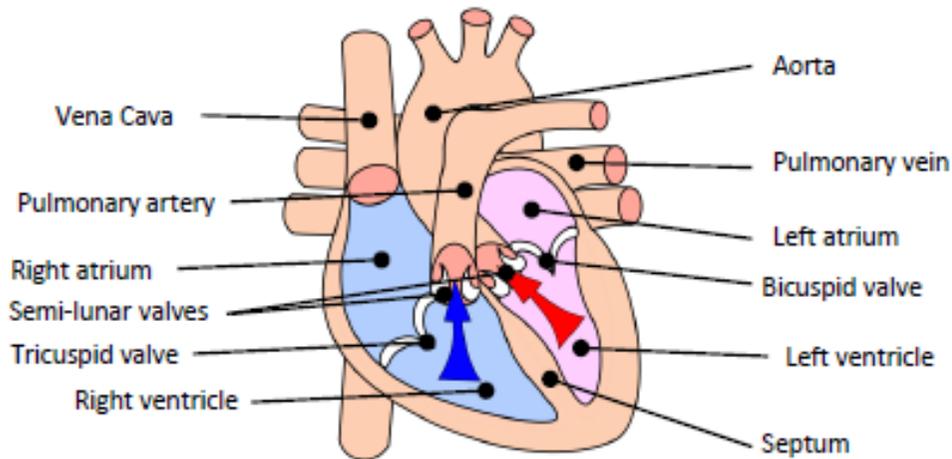
Key terms you must learn. These are important as you will need to understand these terms in lots of different types of questions on paper 1.

Heart rate: The number of times the heart contracts in one minute.

Stroke volume: The volume of blood ejected out of the heart in one contraction.

Cardiac output: The volume of blood ejected out of the heart in one minute.

Structure of the cardiovascular system



Deoxygenated blood = BLUE (Right side)

Oxygenated = RED (Left side)

Possible Exam questions:

You could be given a blank version of the diagram above and asked to label it.

Describe the difference between arteries and veins. (3 marks)

Describe the role of red blood cells (1 mark)

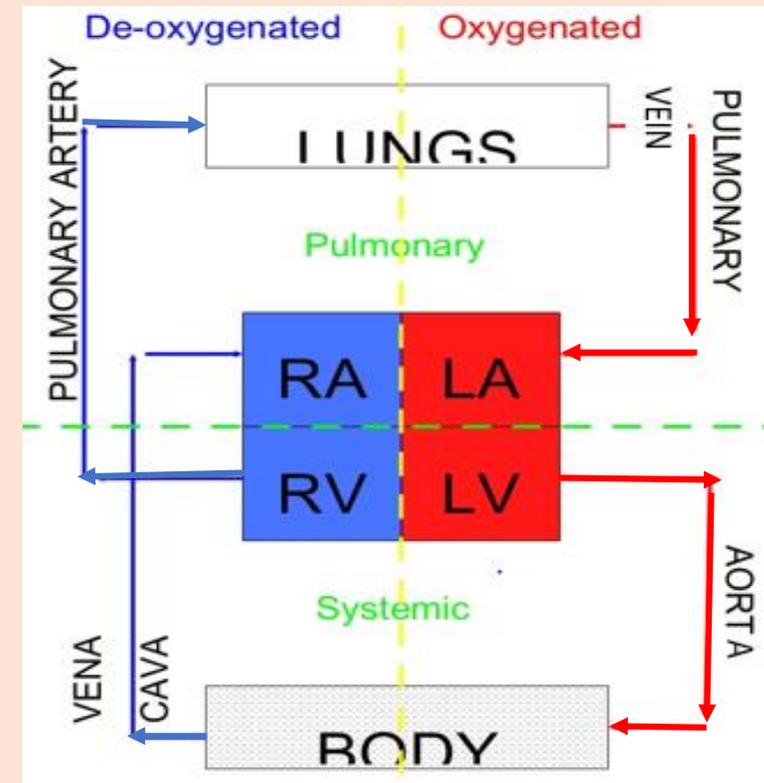
Describe the structure and role of capillaries (2 marks)

Arteries carry blood under high pressure? True or False? (1 mark)

Describe the pathway of blood through the heart/body (4/5 marks)

Name the part of the heart that divides it into two halves to separate deoxygenated and oxygenated blood. (1 mark)

You should be able to draw this diagram without support:



Exam Question:

(Using your copy of the diagram you have drawn above)

Explain the pathway of blood around the body beginning at the lungs. (5 marks)

Include key words;

High/low blood pressure, oxygenated/deoxygenated blood, bicuspid and tricuspid valve, Left/Right atrium, left/right ventricle, Pulmonary vein/artery, Aorta, Vena cava, pulmonary system, systemic system, diffusion of oxygen, capillary, working muscle.