

Coombe Wood Year 12 Bridging Work

SUBJECT: BTEC Sport Bridging Work Booklet

HEAD OF DEPARTMENT NAME: Mr Smith (Head of HRF & Games)

TEACHER EMAIL: [wsmith@cws.foliotrust.uk](mailto:wsmith@cws.foliotrust.uk)

All bridging work must be completed by 17/9 and forms part of your Pupil Passport at Coombe Wood Sixth Form.

This booklet will take 3 to 4 hours to complete.

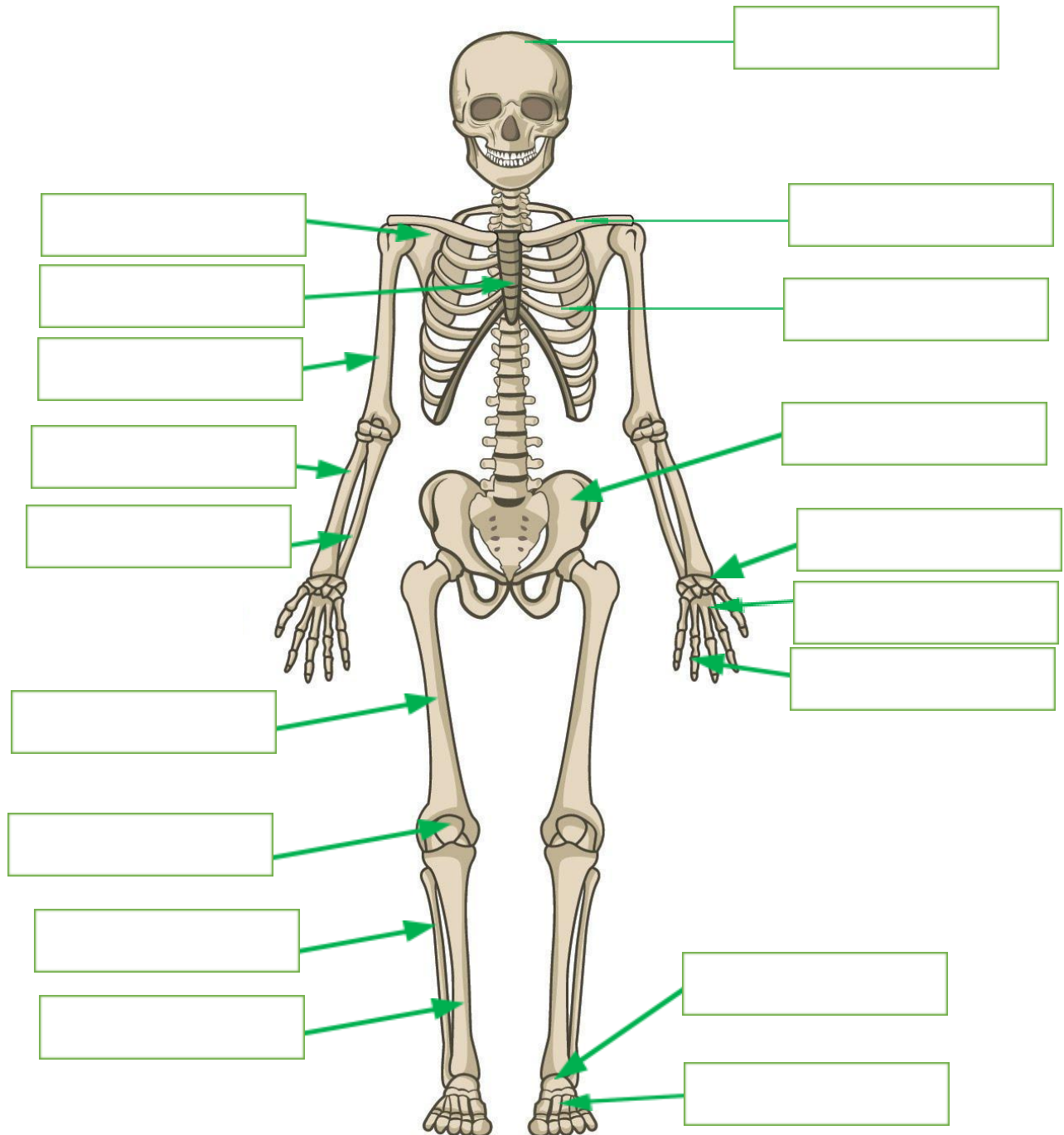


(number and title)	Unit size (GLH)	Certificate (180 GLH)	Extended Certificate (360 GLH)	Foundation Diploma (540 GLH)	Diploma (720 GLH)
Anatomy and Physiology	120	M	M	M	M
Fitness Training and Programming for Health, Sport and Well-being	120		M	M	M
Professional Development in the Sports Industry	60		M	M	M
Sports Leadership	60		O	M	O
Application of Fitness Testing	60		O	O	M
Sports Psychology	60		O	O	
Practical Sports Performance	60	M	O	O	
Coaching for Performance	60			O	
Research Methods in Sport	60			O	
Sports Event Organisation	60			O	
Research Project in Sport	60			O	
Self-employment in the Sports Industry	60				M
Instructing Gym-based Exercise	60				M
Exercise and Circuit-based Physical Activity	60				M
Instructing Exercise to Music	60				O
Instructing Water-based Exercise	60				O
Sports Injury Management	60				O
Work Experience in Active Leisure	60				O

## A – Structure of the Skeletal System



Complete the below diagram naming all the major bones of the body

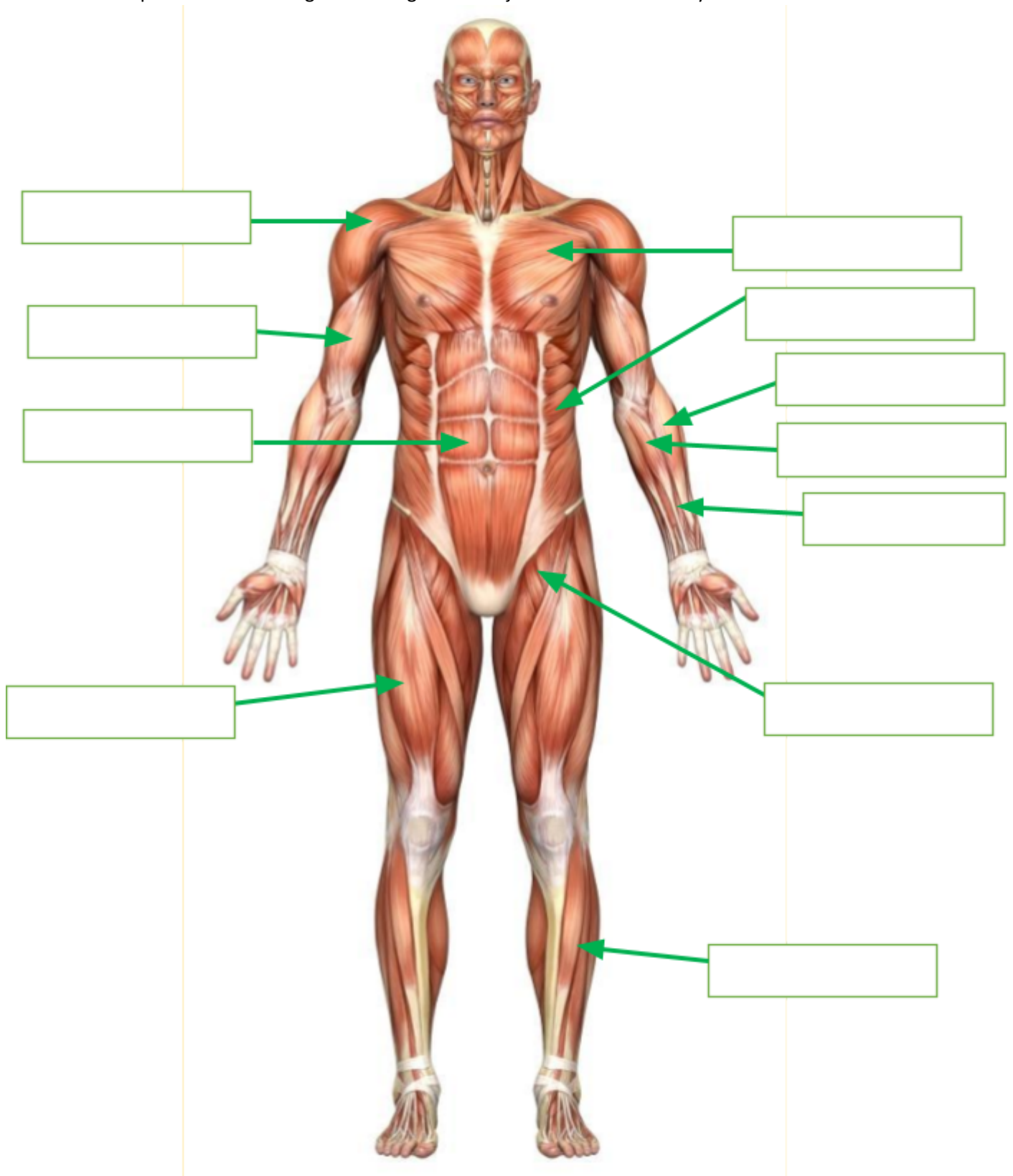



## B – Major skeletal muscles of the Muscular System

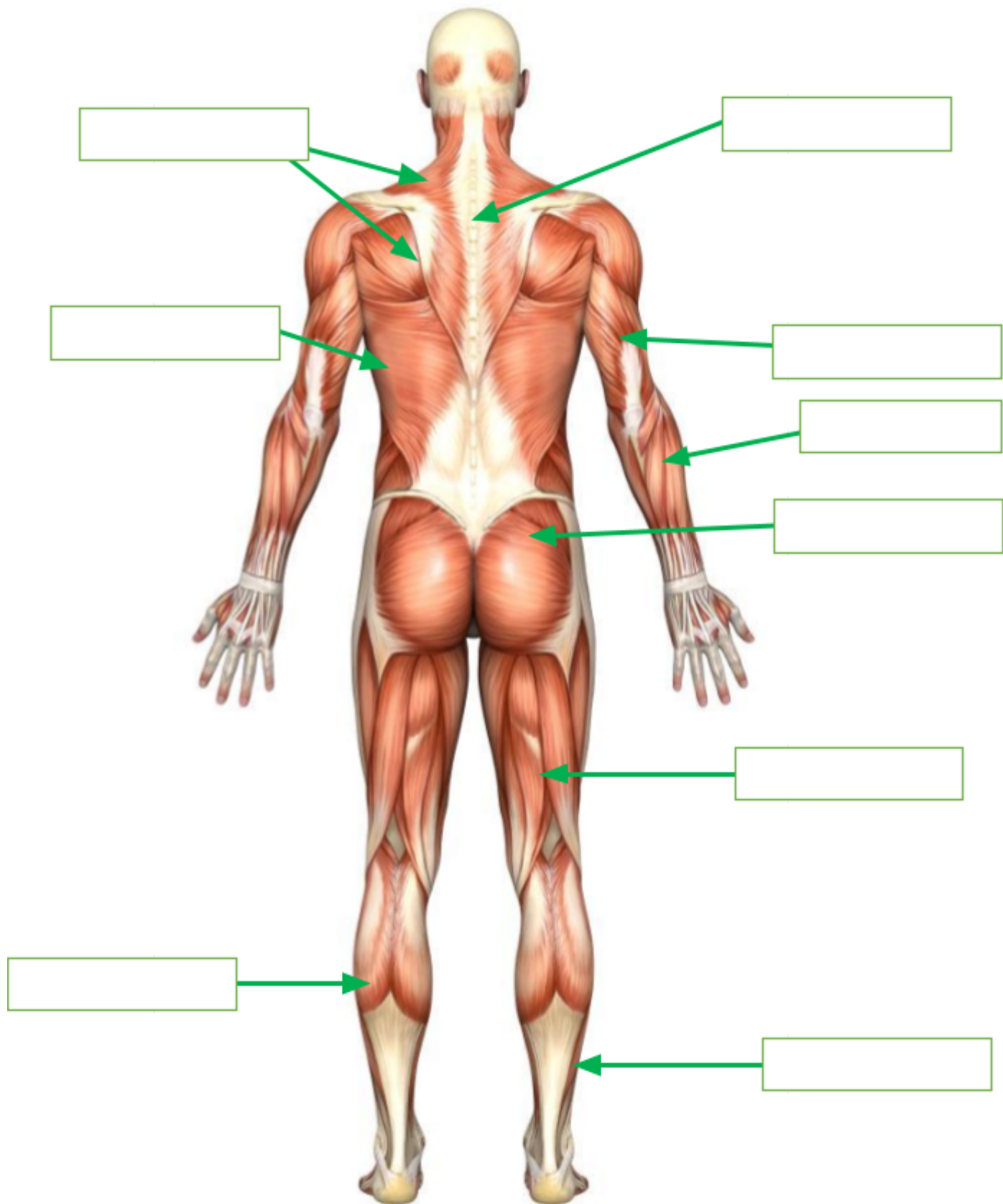
Skeletal muscles are **voluntary** muscles which means they are under your control. Skeletal muscles not only provide you with movement, strength and power but are also responsible for maintaining posture and generating heat.



Complete the below diagram naming all the major muscles of the body



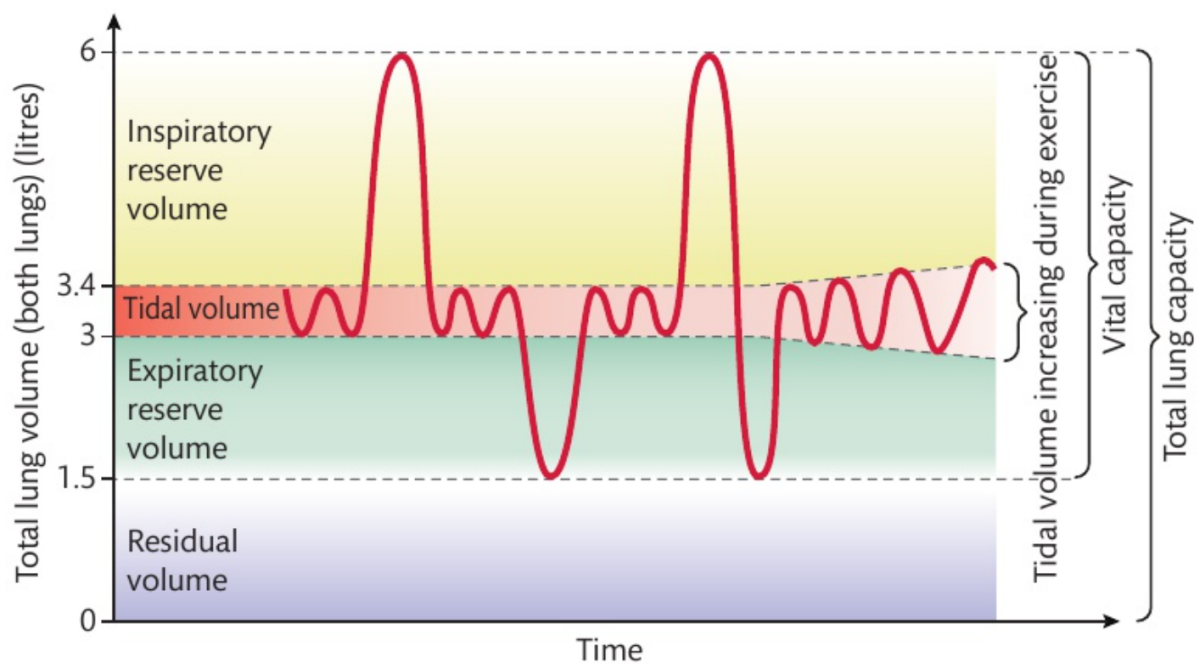
 Complete the below diagram naming all the major muscles of the body



## C – Lung Volumes – Respiratory System

What happens to your breathing when you are exercising or training? Your lungs are designed to take in more air during exercise so that more oxygen can reach the alveoli and more carbon dioxide can be removed. Your breathing will become deeper and more frequent to cope with the demands that exercise puts on your body.

Your **respiratory rate** is the amount of air you breathe in, in one minute. For a typical 18-year-old, this represents about 12 breaths per minute at rest, during which time about 6 litres of air passes through the lungs. It can increase significantly during exercise, by as much as 30-40 breaths per minute.



*Lung volume and capacities of a healthy adult*

For this section of the unit you are required to know and understand: **tidal volume, vital capacity, residual volume, total lung capacity, inspiratory and expiratory reserve volumes and pulmonary ventilation.**

In the table below, describe what each of the lung volumes/capacities are and responses that can occur as a result of exercise and sports performance.

Lung Volume	Description
Tidal Volume	
Vital Capacity	
Residual Volume	
Total Lung Capacity	
Inspiratory Reserve Volume	
Expiratory Reserve Volume	
Pulmonary Ventilation	




## D - The Structure of the Cardiovascular System

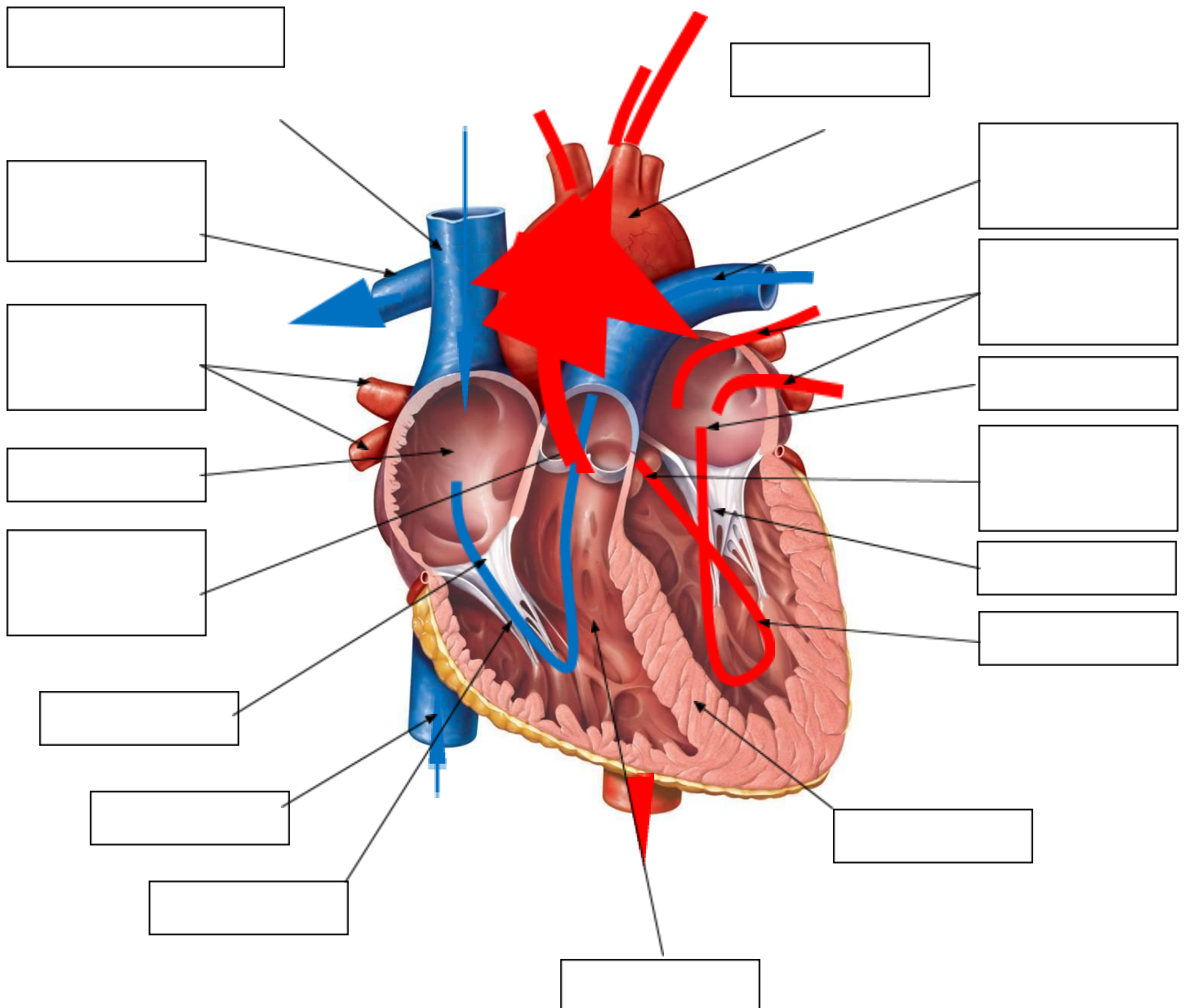
### The Heart - Labelled

The heart is a unique hollow muscle and is the pump of the cardiovascular system. It is located under the sternum (which provides protection) and is about the size of a closed fist. Its function is to drive blood into and through the arteries in order to deliver it to the tissues and working muscles.

The heart is surrounded by a twin layered sac known as the pericardium. The cavity between the layers is filled with pericardial fluid, whose purpose is to prevent friction as the heart beats. The heart wall itself is made up of three layers; the epicardium (the outer layer), the myocardium (the strong middle layer that forms most of the heart wall), and the endocardium (the inner layer).


The right side of the heart is separated from the left by a solid wall known as the septum. This prevents blood on the right side coming into contact with blood on the left.

 Label the diagram of the heart below.





## E – ATP – Structure and Function – Energy Systems

 Explain the structure and function of the different parts of ATP below

Section of ATP	Structure	Function
Adenosine		
Phosphate		
Phosphate bond		

Where is our ATP stored?

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How long can we rely just on ATP during exercise?

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## Unit 3: Professional Development in the Sports Industry

**Working towards assignment 1:** Understand the career and job opportunities in the sports industry

As a student on the Level 3 BTEC Sport programme, you have been approached by the careers department at the local Further Education College to carry out an investigation into two contrasting career pathways in the sports industry.

The investigation should focus on short- and long-term prospects in each career pathway. In addition to this as part of your investigation, you must highlight the knowledge, skills and qualities required to pursue each career.

TASK:

Write an article for the student magazine based on the career pathway.

Research a career path in the Sports industry.

- Full time/part time/fixed contract or self-employment
- Experience needed.
- Qualifications needs
- Possible promotions in the job
- Seasonal factors that may affect the career
- Wages
- Holiday
- Pictures

This work will go towards the first assignment.