

# **BTEC Sport (single Y12-Y13)**

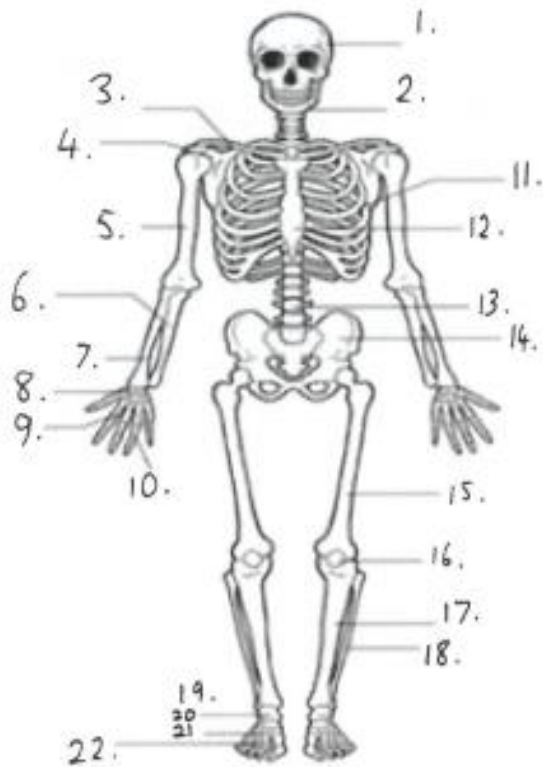
# **SIL**



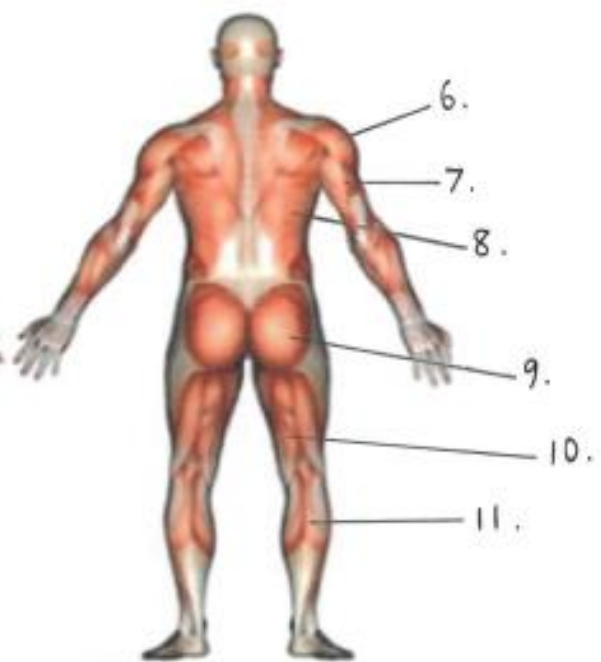
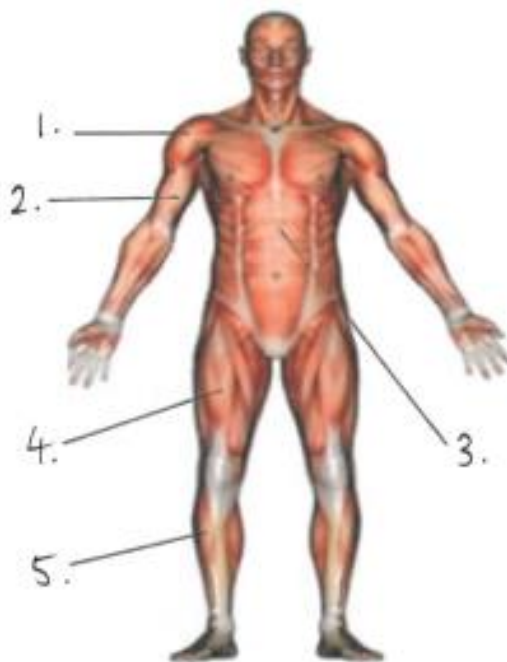
**Click On the following playlist to help you complete these tasks:**

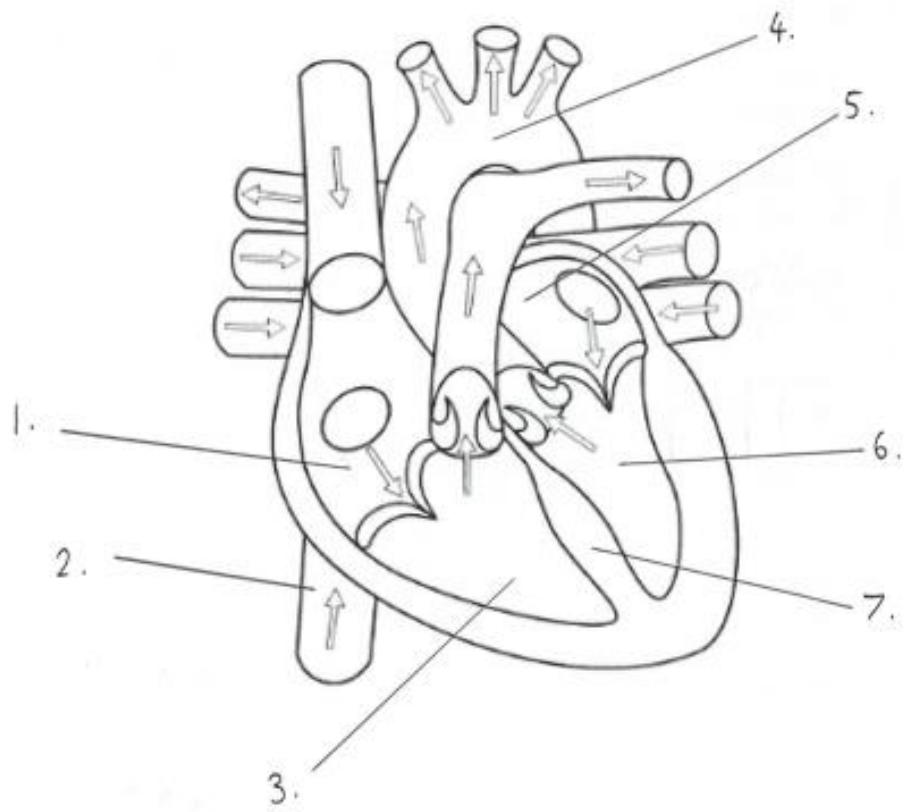
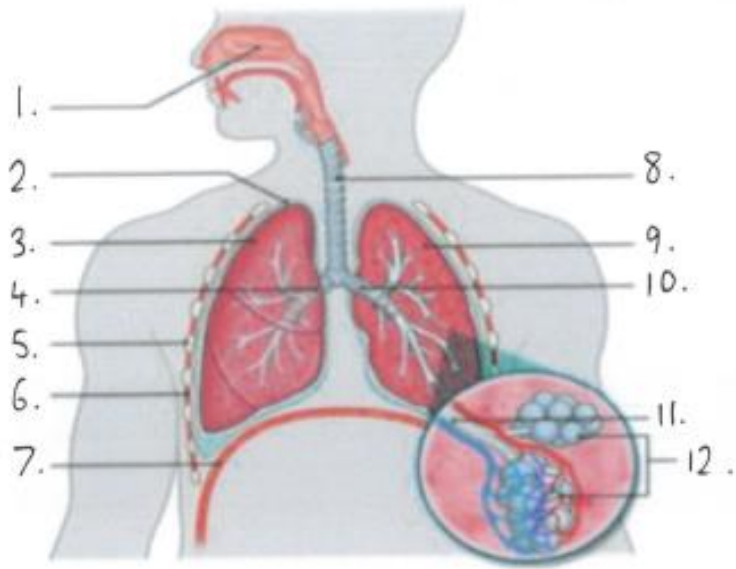
**[James Morris PE](#)**

**Task 1:** Research the answers to label the components for the 4 body systems on the following diagrams.



Can you label the 5 regions of the spine...?





<b>Sesamoid Bone</b>		
<b>Ball &amp; Socket Joint</b>		
<b>Hinge Joint</b>		
<b>Long Bone</b>		
<b>Patella</b>		
<b>Rib Cage</b>		
<b>Ossification</b>		
<b>Epiphyseal Plate</b>		
<b>Cartilage</b>		
<b>Synovial Fluid</b>		
<b>Tidal Volume</b>		
<b>Mechanics of Breathing</b>		
<b>Breathing Rate</b>		
<b>Residual Volume</b>		
<b>Gas Exchange</b>		
<b>Diffusion</b>		

<b>Partial Pressure</b>		
<b>Medulla</b>		
<b>Phrenic Nerve</b>		
<b>Diaphragm</b>		
<b>Heart Rate</b>		
<b>Stroke Volume</b>		
<b>Chemoreceptors</b>		
<b>Cardiac Control Centre</b>		
<b>Vascular Shunt</b>		
<b>Venous Return</b>		
<b>Systole</b>		
<b>Cardiac Cycle</b>		
<b>Sudden Arrhythmic Death Syndrome</b>		

**Task 3:** Research short- and long-term effects of exercise on the following 4 body systems;

- Muscular
- Skeletal
- Respiratory
- Cardiovascular

**Short Term Effects:** Means what happens to this system as soon as we start exercising.

**Long Term Effects:** Means what happens to this system after long term exercise.

Muscular		Skeletal	
Short Term Effects	Long Term Effects	Short Term Effects	Long Term Effects
<ul style="list-style-type: none"> <li>• E.g. Increased muscle pliability.</li> </ul>	<ul style="list-style-type: none"> <li>•</li> </ul>	<ul style="list-style-type: none"> <li>•</li> </ul>	<ul style="list-style-type: none"> <li>• E.g. Increased bone density.</li> </ul>
Respiratory		Cardiovascular	
Short Term Effects	Long Term Effects	Short Term Effects	Long Term Effects
<ul style="list-style-type: none"> <li>•</li> </ul>	<ul style="list-style-type: none"> <li>• E.g. Increased lung volume.</li> </ul>	<ul style="list-style-type: none"> <li>• E.g. Increased stroke volume.</li> </ul>	<ul style="list-style-type: none"> <li>•</li> </ul>

**Task 4:** In a spider diagram format, explain the following conditions below. You will need to know all of these for your new course.

Asthma

Arthritis

Diabetes

Hypothermia

Hyperthermia

Altitude Sickness

Hypoxia

# Unit 2 SIL

**1. Produce an A4 or A3 poster either handwritten or on computer describing the following 6 lifestyle factors:**

- Physical activity
- Sedentary lifestyle
- Stress
- Smoking
- Sleep
- Alcohol

**\*Include:**

- Recommended Government guidelines to any of the above factors that are relevant
- Positive effects of any of the above (there aren't positives for all of them)
- Negative impacts of any of the above (there aren't negatives for all of them)

**2. Design a blank PARQ (Physical Activity Readiness Questionnaire) or a Health Screening Questionnaire. Please do not fill this in!**

**\*Include a minimum of 5 questions on the following sections:**

- Personal Details
- Current Activity Levels
- Nutritional Status
- Lifestyle Factors
- Sporting Goal (only need 1 question)
- Consent Section (only need name, signature and date)



**3. Produce a PPT presentation outlining how to perform the following 5 health screening tests:**

- Resting Blood Pressure
- Resting Heart Rate
- BMI
- Waist to Hip Ratio
- Lung Function (Peak Flow)

**\*Include:**

- Diagram of each test
- Description of how to administer each test and list of equipment
- Normative data table for expected results of males and females for each test

**If you are struggling for ideas then use: [www.brianmac.co.uk](http://www.brianmac.co.uk) to help you**

**4. EXAM QUESTION CASE STUDY:**

**Ross is a 35 year old male. He does no exercise each week, smokes 5 cigarettes a day, drinks 15 units of alcohol per week, has a stressful job and is only getting 5 hours of sleep per night.**

**Suggest one different lifestyle modification technique that Ross could do to improve each lifestyle factor mentioned in the case study. You will be awarded 1 mark for identifying the name of the strategy and 1 mark for explaining how Ross will apply it to his lifestyle (10 marks)**