
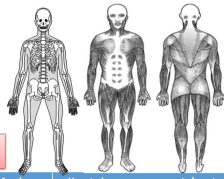


Preparation for BTEC Sport Tasks

These resources and tasks will give you an insight into the unit content that you will be studying from September.

Task 1: Anatomical Identification

Use the QR Code to assist in the correct identification of the bones and muscles

Task 3: Responses & Adaptations

Responses are immediate/acute. It is the body reacting straight away to exercise. Over time and with regular training the body adapts and changes. e.g. muscles increasing in size/strength.

Task – The list below are the responses of the muscular system to exercise. Describe what happens.

Response	Description
Increased blood supply	
Increased muscle temperature	
Increase muscle pliability	
Lactate	
Micro tears	
DOMS	
Delayed onset muscle soreness	

Exercise Physiology

Using the knowledge acquired from Task 1, identify the main bones and muscles that will be required for the Tennis actions listed below.

Action in Tennis	Muscle movement	Muscles Required	How to improve movements (e.g. types of training?)
Forehand Drive	Elbow Flexion/Extension Arm Abduction/Adduction Arm Circumduction Hand Supination	Biceps/Triceps Pectorals/Deltoid Latissimus Dorsi Supinator/Supra	Resistance Training (e.g. fixed weight machines, body weight exercise) Flexibility Training (e.g. PNF, dynamic, static)
Running front/back court			
Serve			

Lifestyle Factors

Exercise and Physical Activity


We are all made of fat and muscle tissue. But why? It's because of the balance between the energy we use and the energy we take in. If we use more energy than we take in, we lose weight. If we take in more energy than we use, we gain weight. Physical activity helps to burn off the extra energy we take in, so we can stay healthy and fit.

Physical Benefits: Improved cardiovascular health, increased energy, better sleep, and reduced risk of chronic diseases.

Psychological Benefits: Reduced stress, improved mood, and increased self-esteem.


Social Benefits: Increased social interaction and support.

Economic Benefits: Reduced healthcare costs and increased productivity.



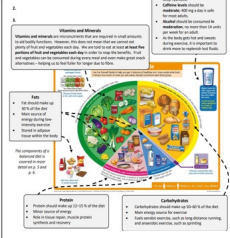
Alcohol

Alcohol causes short-term effects, such as stress and dehydration, but it also has a number of long-term effects on health. Excessive alcohol consumption can lead to liver disease, heart disease, and cancer.



Balanced Diet

A balanced diet is one that provides the body with the right amount of energy and nutrients. It should include a variety of fruits, vegetables, grains, and proteins.




Smoking

Smoking accounts for around 78,000 deaths in the UK (ONS, 2021), and is linked with many different health conditions.

Coronary Heart Disease (CHD): Smoking is a major risk factor for CHD, which is the leading cause of death in the UK.

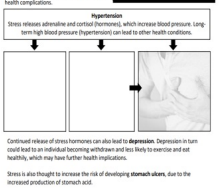
Lung Disease: Smoking is the primary cause of lung disease, including chronic obstructive pulmonary disease (COPD) and lung cancer.

Stress: Smoking can increase stress levels, which can lead to further health problems.



Stress

Stress can cause hypertension, which is a long-term condition that can lead to heart disease and stroke. Stress can also lead to depression, which is a mental health condition that can affect anyone.



Sleep

It is recommended that an average adult should get seven or more hours sleep a night, with younger children even more, due to the fact they are still developing. Sleep is essential for good health and well-being.



BTEC LEVEL 3 SPORT

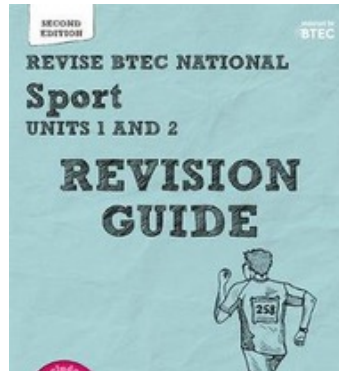
THE FOLLOWING TASKS AND INFORMATION WILL GIVE YOU AN INSIGHT INTO SOME OF THE CONTENT WE COVER ON THE SPORTS COURSE AT KECS



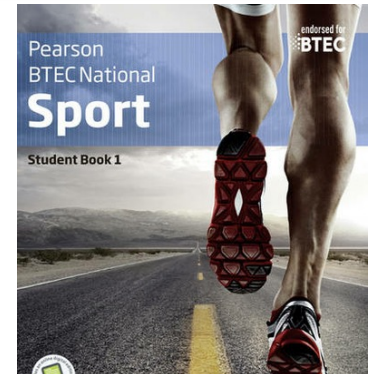
SECOND EDITION

REVISE BTEC NATIONAL Sport UNITS 1 AND 2

REVISION GUIDE



Pearson BTEC National Sport Student Book 1



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Task 1: Anatomical Identification



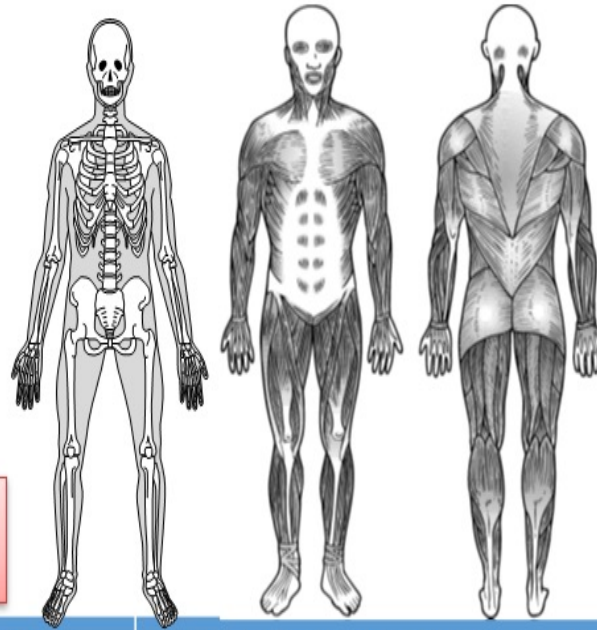
Task 3: Responses & Adaptations





Use the QR Codes to assist in the correct identification of the bones and muscles



<https://www.anatomyarcade.com/games/PAM/PAM.html>



Using the knowledge acquired from Task 1, identify the main bones and muscles that will be required for the Tennis actions listed below.

Action in Tennis	Muscle movement	Muscles Required	How to improve movements (e.g. types of training?)
Forehand Drive 	Elbow Flexion/Extension Arm Abduction/Adduction Arm Circumduction Hand Supination	<u>Bicep/Tricep</u> <u>Pectorals/Deltoid</u> <u>Latissimus Dorsi</u> <u>Supinator/Biceps</u>	Resistance Training (e.g. fixed weight machines, body weight exercise) Flexibility Training (e.g. PNF, dynamic, static)
Running front/back court 			
Serve 			

Responses are immediate/acute, it is the body reacting straight away to exercise. Over time and with regular training the body adapts and changes e.g. muscles increasing in size/strength.

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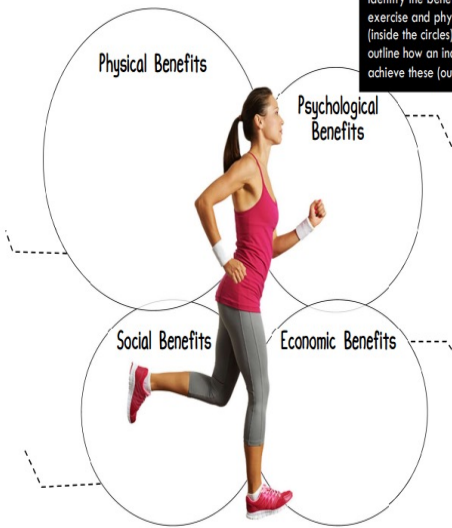


Lifestyle Factors

Exercise and Physical Activity

We are all told to sit less and move more. But why? It's because studies have proven that there are so many benefits to increasing our level of activity for our physical, social and mental well-being. Not only that, evidence has shown that the economy also benefits from an active population too!

Identify the benefits of exercise and physical activity (inside the circles), and briefly outline how an individual may achieve these (outside the circles).



Alcohol

Alcohol causes short-term effects, such as drowsiness and dehydration, but it also has a number of long-term effects on health.

Explain the impact that consuming alcohol above the government's recommendations can have on the health of an individual.



Balanced Diet

Give three ways in which a healthy, balanced diet can contribute to a positive lifestyle.

- 1.
- 2.
- 3.

- Fluid Intake**
- 6-8 cups (2 L) of water should be consumed throughout the day to keep hydrated.
 - **Caffeine levels** should be moderate; 400 mg a day is safe for most adults.
 - **Alcohol** should be consumed in moderation; no more than 14 units per week for an adult.
 - As the body gets hot and sweats during exercise, it is important to drink more to replenish lost fluids.

Vitamins and Minerals

Vitamins and minerals are micronutrients that are required in small amounts to aid bodily functions. However, this does not mean that we cannot eat plenty of fruit and vegetables each day. We are told to eat at least **five portions of fruit and vegetables each day** in order to reap the benefits. Fruit and vegetables can be consumed during every meal and even make great snack alternatives – helping us to feel fuller for longer due to fibre.



- Fats**
- Fat should make up 30% of the diet
 - Main source of energy during low-intensity exercise
 - Stored in adipose tissue within the body

- Carbohydrates**
- Carbohydrates should make up 50-60% of the diet
 - Main energy source for exercise
 - Fuels aerobic exercise, such as long-distance running, and anaerobic exercise, such as sprinting

Smoking

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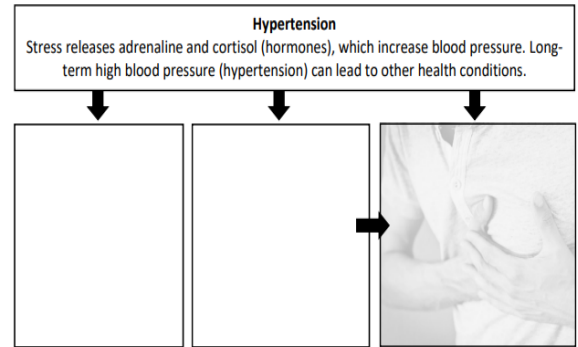
Coronary Heart Disease (CHD)	Infertility Women have ovulation problems Men have a lower sperm count Thus there is a reduced likelihood of couples getting pregnant	Cancer Increased risk of lung cancer, mouth cancer, breast cancer, kidney cancer, and many other types of cancer.
Lung Disease	Bronchitis	

Describe how smoking can cause the health conditions and diseases listed above.

Stress

Stress can be good, e.g. it can help motivate you to accomplish daily challenges. However excessive chronic stress can have a number of health complications.

Stress can cause hypertension, which, in turn, causes other physical health conditions. Identify and describe three other conditions that could be caused by stress and hypertension.



Continued release of stress hormones can also lead to **depression**. Depression in turn could lead to an individual becoming withdrawn and less likely to exercise and eat healthily, which may have further health implications.

Stress is also thought to increase the risk of developing **stomach ulcers**, due to the increased production of stomach acid.

Sleep

It is recommended that an average adult should get seven or more hours sleep a night, with younger children even more, due to the fact they are still developing.

Identify and describe two impacts of a lack of sleep on health and well-being.

