

# Sport and Exercise Science Induction Pack

Ark Globe Academy



## Contents:

Course Overview – Page 1

Before you start – Page 3

Anatomy and Physiology Tasks – Page 5

Coaching Practice Tasks – Page 11

Careers in Sport Tasks – Page 13

Extension Tasks – Page 15

## Overview of Course

### Who is this qualification for?

The Pearson BTEC National Extended Diploma in Sport and Exercise Science is intended to be an Applied General qualification. It is for post-16 learners who want to continue their education through applied learning, and who aim to progress to higher education and ultimately to employment, possibly in the sport and exercise science sector. The qualification is wide-ranging and equivalent in size to three A Levels and has been designed as a full two year study programme.

### What does this qualification cover?

The content of this qualification has been developed in consultation with academics to ensure that it supports progression to higher education. Employers and professional bodies have also been involved and consulted to confirm that the content is appropriate and consistent with current practice for learners choosing to enter employment in the sport and exercise science sector. The qualification gives learners the knowledge, understanding and skills that underpin study of the sport and exercise science sector, and gives learners additional breadth and depth to prepare them fully for further study or training. Learners will study seven mandatory units and 6 other units. The content of Year 1 and Year 2 is outlined below:

#### Year 1

##### **Unit 2 - Functional Anatomy (Exam)**

##### **Unit 3 - Applied Sport and Exercise Psychology (Exam)**

Unit 6 - Coaching for Performance and Fitness

Unit 10 - Physical Activity for Individuals and group based Exercise

Unit 12 - Sociocultural Issues in Sport and Exercise

Unit 14 - Technology in Sport and Exercise

Unit 15 - Sports Injury and Assessment

#### Year 2

##### **Unit 1 - Sport and Exercise Physiology (Exam)**

Unit 4 - Field and Laboratory-based Fitness Testing

Unit 5 - Applied Research Methods in Sport and Exercise Science

Unit 8 - Specialised Fitness Training

Unit 9 - Research project in Sport and Exercise Science

##### **Unit 13 - Nutrition for Sport and Exercise Performance (Exam)**

### What could this qualification lead to?

This qualification is primarily designed to support progression to employment after further study at university. However, it also supports learners who may choose to progress directly to employment, as the transferable knowledge, understanding and skills will give learners an advantage in applying for entry level roles or 'school leaver' industry training programmes and Higher Apprenticeships in areas such as sport and fitness training, coaching, and sports performance research. In addition to the sector-specific

content, the requirements of the qualification will mean that learners develop the transferable and higher order skills which are valued by higher education providers and employers. The qualification is intended to carry UCAS points and is recognised by higher education providers as meeting admission requirements for many relevant courses, for example:

- BSc (Hons) in Sport and Exercise Science
- BSc (Hons) in Sport Science
- BSc (Hons) in Sport and Coaching Studies
- BSc (Hons) in Physiotherapy
- BSc (Hons) in Sports Rehabilitation

Learners should always check the entry requirements for degree programmes with specific higher education providers.

### **How does the qualification provide employability skills?**

In the BTEC National units there are opportunities during the teaching and learning phase to give learners practice in developing employability skills. Where employability skills are referred to in this specification, we are generally referring to skills in the following three main categories:

- cognitive and problem-solving skills: use critical thinking, approach non-routine problems applying expert and creative solutions, use systems and technology
- intrapersonal skills: communicating, working collaboratively, negotiating and influencing, self-presentation
- interpersonal skills: self-management, adaptability and resilience, self-monitoring and development.

How does the qualification provide transferable knowledge and skills for higher education?

All BTEC Nationals provide transferable knowledge and skills that prepare learners for progression to university. The transferable skills that universities value include:

- the ability to learn independently
- the ability to research actively and methodically
- being able to give presentations and being active group members.

BTEC learners can also benefit from opportunities for deep learning where they are able to make connections among units and select areas of interest for detailed study. BTEC Nationals provide a vocational context in which learners can develop the knowledge and skills required for particular degree courses, including:

- reading technical texts
- effective writing
- analytical skills
- creative development
- preparation for assessment methods used in degrees.

## **Before you start**

### Films & Documentaries to watch

- The Program: Lance Armstrong Movie and Icarus on Netflix (Unit 12 Sociocultural Issues in Sport and Exercise Science)
- The Fittest 2020 on Amazon Prime (Unit 10 Individual and group-based exercise)
- Last chance U - Basketball and The last Dance on Netflix (Unit 3 Applied Sport and Exercise Psychology)
- The Playbook on Netflix (Unit 6 Coaching for performance)
- Moneyball on Netflix or All or nothing documentaries on Amazon Prime (Unit 6 Coaching for performance)
- Troy Deeney and Hector Bellerin injury rehab on YouTube (Unit 15 Sport injury and Assessment)
  
- Supersize me on Amazon Prime (Unit 13 Sports Nutrition)
- Mo Farah and the Salazar Scandal on BBC iPlayer (Unit 12 Sociocultural Issues in Sport and Exercise Science)
- All or Nothing: Manchester City on Prime Video (Unit 6 Coaching for performance)
- Game Changers on Netflix (Unit 13 Sports Nutrition for Sport and Exercise Performance)
- Sir Alex Ferguson: Secrets of Success (Unit 3 Applied Sport and Exercise Psychology)
- Barça Dreams on Netflix (Unit 12 Sociocultural Issues in Sport and Exercise Science)
- Conor McGregor: Notorious on Netflix (Unit 3 Applied Sport and Exercise Psychology)

### Preparation Research

#### Internet Research

Can your choice of running trainers, football boots or training attire really influence your performance? - Is Technology the New Performance Enhancing Drugs? (Huffington Post)

If you have a career path in mind, do some research into your next steps after College. Look on the National Careers Service government website to see requirements for different jobs in Sport. Alternatively, you could research what careers there are in the Sport sector, if you're a little unsure.

#### Recommended Reading

- Bounce: The Myth of Talent and the Power of Practice by Matthew Syed
- Inverting the Pyramid: The History of Football Tactics by Jonathan Wilson
- Kicking Off: How Women in Sport are Changing the Game by Sarah Shephard
- Achieve the Impossible by Professor Greg Whyte OBE
- Why We Sleep by Matthew Walker

#### Recommended Websites:

- BBC Sport [www.bbc.co.uk/sport](http://www.bbc.co.uk/sport)

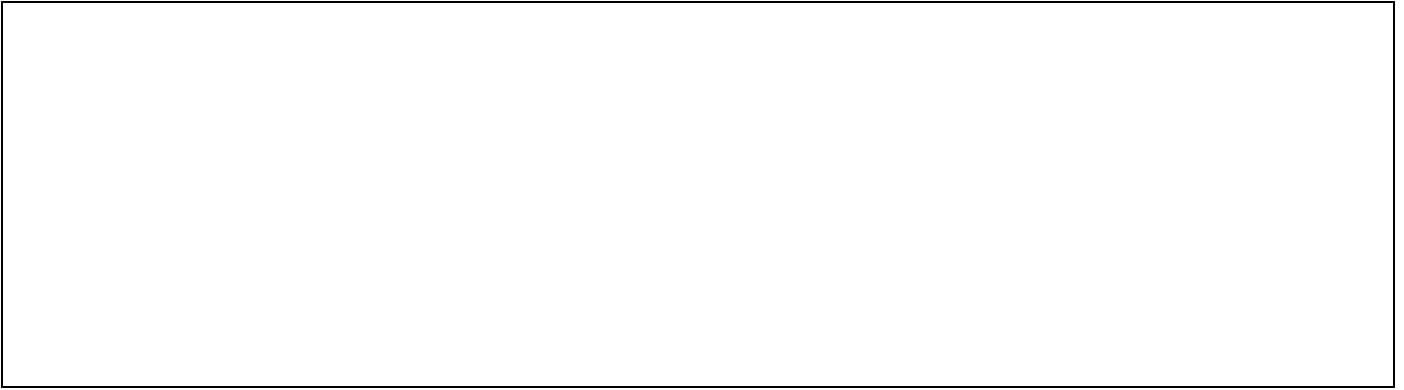
- Sky Sports [www.skysports.com](http://www.skysports.com)
- Guardian Sport [www.theguardian.com/profile/guardian-sport](http://www.theguardian.com/profile/guardian-sport)
- Bleacher Report [www.bleacherreport.com](http://www.bleacherreport.com)
- TED Talks – Sports [www.ted.com](http://www.ted.com)
- FourFourTwo [www.fourfourtwo.com](http://www.fourfourtwo.com)
- Planet Rugby [www.planetrugby.com](http://www.planetrugby.com)

## **Anatomy and Physiology Task**

### **Task 1:**

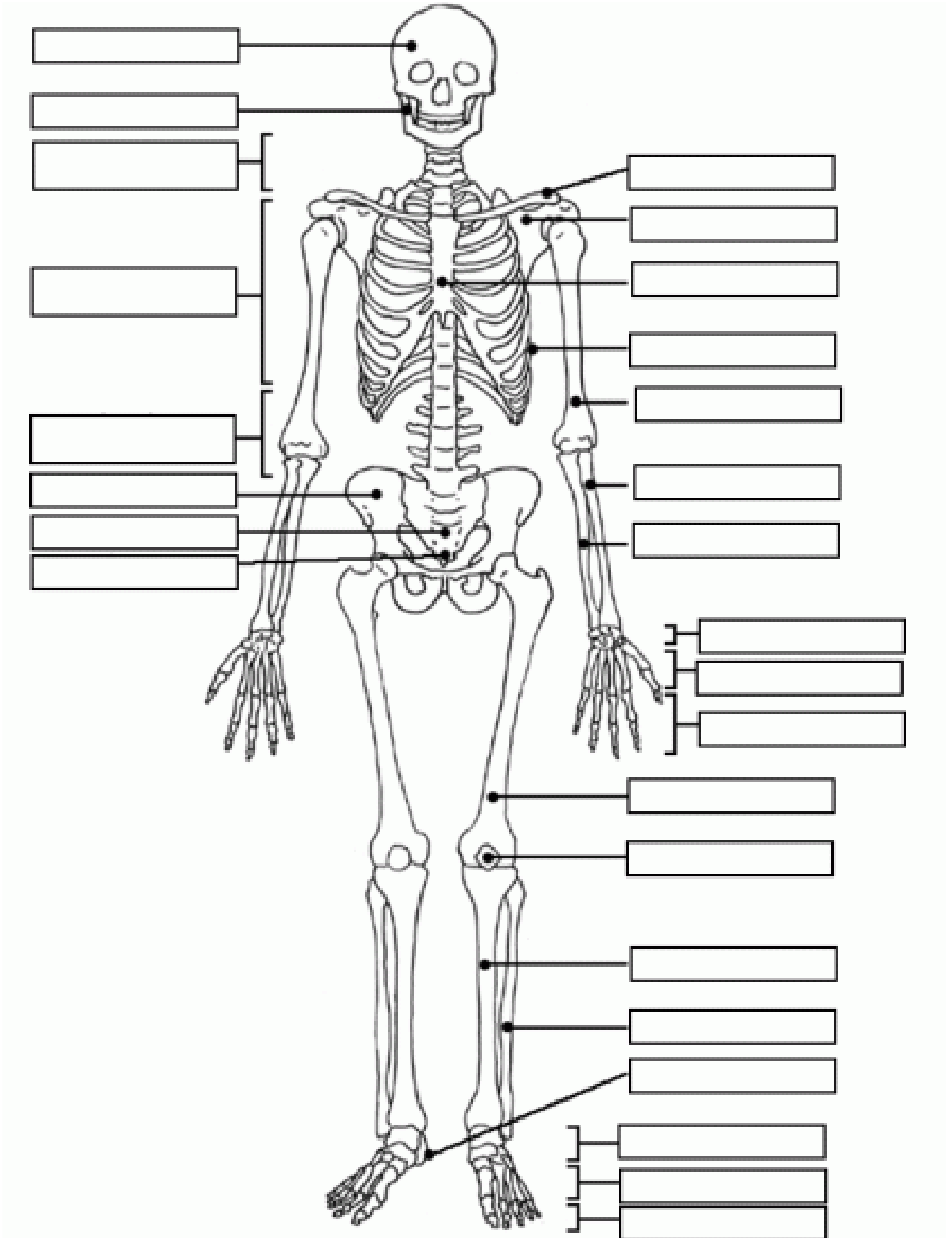
What do the following terms mean? Do some research and add as much detail as you can.

<b>Anatomy</b>
<b>Exercise Physiology</b>
<b>Sports Psychology</b>
<b>Injury Rehabilitation</b>



Task 2: The Skeletal System

Try to complete the diagram of the skeletal system by labelling all the bones identified (including the sections of the spine).



Task 3: The Skeletal System

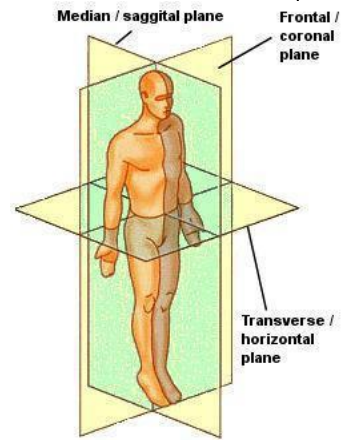
Try to identify 5 different types of bones and then complete the table below.



Type of Bone	Draw a picture to represent this type of bone.	Describe the main characteristics of this bone. Can you give an example in the body?
Long Bone		
Short Bone		
Flat Bone		
Irregular Bone		
Sesamoid Bone		

Task 4: The Skeletal System

Think of why we need a skeleton. Carry out some research and describe all of the functions of the skeleton. Include illustrations in your answer if you can and write down which websites the illustrations came from.



Answer the questions in this section by carrying out your own research.

1. Describe the anatomical position shown in the picture to the right.

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2. Explain why anatomical positions are needed by sports scientists.

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3. Describe the 3 planes and 3 axis around which human movement occurs.

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4. For the following sporting actions discuss the movement which occurs.

- a) At the shoulder during a cricket bowl

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- b) At the hip during a star jump

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- c) The Torso during a forward somersault with straight body

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5. Carry out research and describe what do the following terms mean?

Medial	
Lateral	
Anterior	
Posterior	
Superior	
Inferior	
Proximal	
Distal	
Peripheral	
Deep	
Supine	
Prone	

## Coaching Practice Tasks

This area will cover:

- Unit 6 Coaching for Performance and Fitness
- Unit 10 Physical Activity for Individuals and group based Exercise

Throughout this strand of your qualification you will develop the knowledge, understanding, skills and attributes required to work in the sports sector. The method of study and assessment is a mixture of theory and practical, however, there is a strong focus on your ability to plan, deliver and review your performance as a leader in a range of employment based settings. On completion, you will gain the knowledge and applied skills to work with different customers in a variety of sports programmes, understand how best to impact participation and improve performance. You will develop underpinning knowledge and gain experience as a coach and build skills to impact positively on sports development programmes. Learners will develop their coaching knowledge and skills to help improve others' performance skills, techniques and tactics across a range of sports.

### Task 1:

Watch the video in the link below and then complete the questions.

<https://www.youtube.com/watch?v=9nDHupVqVw> (youtube search 'kes football scene')

How and why does a coach need to act as a Role Model?
What are the health and safety considerations for coaching a sports session such as an outdoor football session like the one in the clip?

Sometimes a coach might need to act as a friend but professional conduct is always important. Who might a coach behave to perform both roles well?

Coaches are educators. How can an effective coach help people learn new skills?

How and why does a coach need to be organised?

## Careers in Sport Tasks

Throughout your qualification you will develop an understanding of careers in the sport and leisure industry and gain the skills, knowledge and behaviours required to gain employment in the industry.

You will undertake an application and interview process for a selected career pathway and evaluate your own strengths and gaps in knowledge and or qualifications to help you focus on potential employment opportunities.

### Areas you will focus on:

**Investigating careers in the sport and leisure industry** - You will investigate the potential job roles available to you on completion of the course and how you can enhance your opportunities in those areas.

**Sport and active leisure industry** - You will examine the organisation of the sport and active leisure industry and its provision in the UK.

**Recruitment in the Sport and active leisure industry** - You will complete a personal skills audit to identify your areas of strength and development as well as partaking in an application process and evaluation of own performance.

A requirement of your course will be for you to plan and prepare for your chosen career. This will involve gaining information on potential job opportunities and careers while developing the skills necessary to successfully complete the application and recruitment process.

### Task:

Research information on different careers in sport. Choose 3 jobs that interest you and complete the table below

<b>Job Title</b>	
Job Description	
Salary	
Entry Requirements	
Training	

<b>Job Title</b>	
Job Description	
Salary	
Entry Requirements	
Training	

<b>Job Title</b>	
Job Description	
Salary	
Entry Requirements	
Training	



## **Extension Tasks**

### **Task 1**

Create a CV for one of the Jobs selected above (it might help to research and find a job advertisement in that area to discover what is specifically required).

### **Task 2**

- a) Identify the 6 physical components of fitness and the 5 skill-related components of fitness.
- b) Select an athlete of your choice. Put the components of fitness in order of importance for your chosen athlete, e.g. Simone Biles (gymnast) 1. Flexibility, 2. Speed, 3. Power...
- c) One physical component of fitness is 'Body Composition'. What somatotype would suit your athlete best?