



Sixth Form Preparation for Success

Welcome to Physical Education

PEARSON EDEXCEL BTEC LEVEL 3 NATIONAL EXTENDED
CERTIFICATE IN SPORT



Introduction

Young people taking their first steps towards a new career need the right blend of technical and academic skills in order to become the highly skilled, work-ready individual's employers and universities look for. The BTEC National in Sport allows you to undertake work-related learning, gives clear progression routes and helps develop a wide range of transferrable skills. The tasks we set will help begin the process of developing these to set you on your way to success.

Part I – Y11 into 12 Physical Education Specific Bridging Work

To be completed May – Sept

Remember that prizes will be awarded for 'exceptional' work that demonstrates effort above expected!

a) Investigate places of interest

As much practical sport and fitness experience you can gain will help you relate and give examples to many different areas of the course.

Try and attend different types of sports facilities, such as leisure centres, fitness classes, gyms and stadiums.

<https://www.eyerevolution.co.uk/virtual-tours/stadium-360s-england-rugby-twickenham/>

<https://www.nationalfootballmuseum.com/explore-the-museum/>

<https://www.ucfb.ac.uk/studying-at-ucfb/virtual-tour/>

**Due to current restrictions, it is not possible to visit venues but many organisations have released videos so search online to see what you can find. Follow one or two of the top fitness experts (e.g. Joe Wicks, Alice Living, Andy Vincent PT, Dame Jessica Ennis Hill) on social media and see what they are saying to help people in these unprecedented times. **

b) Wider reading

Ted Talks – Sport – Are athletes really getting faster, better, stronger?

https://www.ted.com/talks/david_epstein_are_athletes_really_getting_faster_better_stronger

Ted Talks – Fitness - Why some people find exercise harder than others.

https://www.ted.com/talks/emily_balcetis_why_some_people_find_exercise_harder_than_others

Keep up to date with the NHS guidelines

<https://www.nhs.uk/change4life>

A good resource to start off your research

<https://www.brianmac.co.uk/>

Government guidelines factsheets

<https://www.gov.uk/government/publications/uk-physical-activity-guidelines>

c) Compulsory task

Choose a sports performer of your choice. Using this sports performer create a sports profile on them. This profile can be done as a leaflet, word document or factsheet/poster.

Use the different areas below to help guide your research and the information you present.

1. Having an understanding of body systems (skeletal, muscular, cardiovascular, respiratory and energy) is imperative in the sports industry so that professionals can help support people who are taking part in sport and exercise. The human body is made up of many different systems that interrelate to allow us to take part in a huge variety of sport and exercise activities.
 - Think about your sports performer in action, how do these body systems affect their ability to perform?
2. Carrying out client screening and designing fitness training programmes is an essential skill for many people working in the sports industry, including sports coaches looking to improve an individual or team's sporting performance. Any person working in these careers would need to be able to carry out client screening and the design of training programmes in time-constrained conditions, utilising knowledge gained from previous experiences.
 - Think about what screening your sports performer may have been through in their career. How would this have been used? What sort of training programme might they be following?
3. The sports industry is a vast market with many different pathways. For a successful career, you need to understand the scope and breadth of the available opportunities and the steps needed to follow your chosen pathway.
 - Think about the different professionals your sports performer may have been in contact with throughout their career, how might they have helped them get to where they are today?

4. Sports performers need to be able to maintain, and often improve, their fitness levels in order to excel in their sport. It is essential that they regularly participate in fitness tests to determine their baseline measures. These fitness test results are then used to identify strengths and areas for improvement. Fitness testing results are also used to predict future performance and provide feedback on the effectiveness of a training programme. Fitness testing is also carried out for non-sports performers to help determine a person's general fitness levels, which provides an exercise instructor with baseline measures for exercise programme design.

- Think about your sports performer, what methods might they have used/use to help improve their fitness levels.

d) Stretch!

Using the information you have researched, plan your own fitness programme. Include screening (you learnt about screening in the compulsory task above!) where possible to help improve your own level of fitness. Document your results in a way you find suitable, this can be through blogs/vlogs, diary entries.

Part II - Year 12 Head Start! for completion June – September

Link to course specification:

<https://qualifications.pearson.com/en/qualifications/btec-nationals/sport-2016.html>

A brief overview of what you will start learning in the first term:

You will cover two different units with a teacher for each unit.

Unit 1	Unit 2
Anatomy and Physiology	Fitness Training and Programming for Health, Sport and Well-being
Externally Assessed	Externally Assessed
Learning Outcome A	Learning Outcome A
The effects of exercise and sports performance on the skeletal system	Examine lifestyle factors and their effect on health and well-being
A1 Structure of skeletal system Understand how the bones of the skeleton are used in sporting techniques and actions. • Major bones to include cranium, clavicle, ribs, sternum, scapula, humerus, radius, ulna, carpals, metacarpals,	A1 Positive lifestyle factors and their effects on health and well-being Understand the importance of lifestyle factors in the maintenance of health and well-being.

<p>phalanges, pelvis, vertebral column (cervical, thoracic, lumbar, sacrum, coccyx), femur, patella, tibia, fibula, tarsals, metatarsals.</p> <ul style="list-style-type: none"> • Type of bone – long, short, flat, sesamoid, irregular. • Areas of the skeleton to include axial skeleton, appendicular skeleton, spine, curves of the spine, neutral spine alignment, postural deviations (kyphosis, scoliosis). • Process of bone growth – osteoblasts, osteoclasts, epiphyseal plate. 	<ul style="list-style-type: none"> • Exercise/physical activity: physical (strengthens bones, improves posture, improves body shape), reduces risk of chronic diseases (CHD, cancer, type 2 diabetes), psychological (relieves stress, reduces depression, improves mood), social (improves social skills, enhances self-esteem), economic (reduces costs to National Health Service, reduces absenteeism from work). • Balanced diet: eatwell plate (food groups), benefits of a healthy diet (improved immune function, maintenance of body weight, reduces risk of chronic diseases – diabetes, osteoporosis, hypertension, high cholesterol), fluid intake requirements (moderation of caffeine intake), strategies for improving dietary intake (timing of meals, eating less/more of certain food groups, five a day, reducing salt intake, healthy alternatives). • Positive risk-taking activities: participation in outdoor and adventurous activities, endorphin release, improved confidence. • Government recommendations/guidelines: UK Government recommendations (physical activity, alcohol, healthy eating).
<p>A2 Function of skeletal system</p> <p>Understand how the functions of the skeleton and bone types are used in sporting actions and exercise.</p> <ul style="list-style-type: none"> • Functions of the skeleton when performing sporting techniques and actions: <ul style="list-style-type: none"> o supporting framework o protection o attachment for skeletal muscle 	<p>A2 Negative lifestyle factors and their effects on health and well-being</p> <p>Understand the factors contributing to an unhealthy lifestyle.</p> <ul style="list-style-type: none"> • Smoking: health risks associated with smoking (CHD, cancer, lung disease, bronchitis, infertility). • Alcohol: health risks associated with excessive alcohol consumption (stroke, cirrhosis,

<ul style="list-style-type: none"> o source of blood cell production o store of minerals o leverage o weight bearing o reduce friction across a joint. • Main functions of different bone types when performing sporting techniques and actions: o long bones – provides leverage, red blood cell production o short bones – weight bearing o flat bones – protection o sesamoid bones – reduce friction across a joint. 	<ul style="list-style-type: none"> hypertension, depression). • Stress: health risks associated with excessive stress (hypertension, angina, stroke, heart attack, stomach ulcers, depression). • Sleep: problems associated with lack of sleep (depression, overeating). • Sedentary lifestyle: health risks associated with inactivity.
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Links to revision/work booklets:

<https://qualifications.pearson.com/en/qualifications/btec-nationals/sport-2016.resources.html?filterQuery=category:Pearson-UK:Publisher%2FPearson>

We have copies of these in the department for you to look at first if you think this is something you are interested in purchasing ready for your exams.

The PE Department hopes you enjoy your summer, get a head start on your studies by completing the assigned tasks and we look forward to getting to know you better when we meet in September.

In addition to the ‘wider reading’ section in Part I of this Bridging Work document, the table below lists a selection of wider engagement ideas that will help you engage with the world of sport. We recommend that you actively seek to watch some of the many exceptional sporting documentaries that can be found on YouTube, Netflix, Amazon Prime or other online platforms. Recommendations include, but are not limited to:

Documentaries

Title	Where to watch it	What it's about
The Dawn Wall	Netflix	Legendary free climber Tommy Caldwell tries to get over heartbreak by scaling the Dawn Wall of El Capitan in Yosemite National Park.
Free Solo	All 4	Professional rock climber Alex Honnold attempts to conquer the first free solo climb of famed El Capitan's 900-metre vertical rock face at Yosemite National Park.

Icarus	Netflix	When filmmaker Bryan Fogel sets out to uncover the truth about doping in sports, a chance meeting with a Russian scientist transforms his story from a personal experiment into a geopolitical thriller.
The Class of '92	YouTube	Cinematic documentary examining the rise to prominence and global sporting superstardom of six supremely talented young Manchester United footballers - David Beckham, Nicky Butt, Ryan Giggs, Phil Neville, Paul Scholes and Gary Neville.
Sunderland 'Till I Die	Netflix	The English city of Sunderland has seen its main industries of shipbuilding and mining fall by the wayside, which means the Sunderland Association Football Club -- SAFC -- has become an increasingly more important part of the lifeblood of the unique city.
Pumping Iron	Netflix	This partly real and partly scripted film documents what many consider to be the golden age of bodybuilding that occurred in the 1970s.
Iron Cowboy	Amazon Prime	The Story of the 50.50.50 Triathlon is the true story James Lawrence's (aka the Iron Cowboy) herculean 50-day journey to complete 50 Ironman distances in 50 consecutive days in all 50 states as he redefines the limits of what is humanly possible.
Eliud	YouTube	Our short film from inside Eliud Kipchoge's training camp, that explores the philosophies that have made him the greatest marathon runner of all time
The Man With The Halo	YouTube	The Man with the Halo – A story of bravery and determination in the face of adversity.
Nike: Breaking 2	YouTube	Breaking2 was a project by Nike to break the two-hour barrier for the marathon.
Kissed by God	Amazon Prime	Three-time world champion surfer Andy Irons quietly battled bipolar disorder and opioid addiction throughout his life - demons that millions of others combat daily. His previously untold story tears down myths associated with the diseases.
The Edge	Amazon Prime	Between 2009 and 2013, the England Test cricket team rose from the depths of the rankings to become the first and only English side to reach world number one (since ICC records began). The Edge is a compelling, funny and emotional insight into a band of brothers' rise to the top, their unmatched achievements and the huge toll it would take.
Breaking 60	Amazon Prime	Exploring the world of extreme running, as athletes take on the Hong Kong Four Trails challenge and attempt to complete all 298km in 60 hours. The challenge spans the entire width of Hong Kong, and is equivalent to seven marathons back-to-back.
Game Changers	Netflix	James Wilks travels the world on a quest for the truth about meat, protein, and strength. Showcasing elite athletes, special ops soldiers, and visionary scientists to change the way people eat and live.

The Test	Amazon Prime	The Test: A New Era for Australia's Team, is a docuseries following the Australian Men's Cricket Team, offering a behind-the-scenes look at how one of the world's best cricket teams fell from grace and was forced to reclaim their title and integrity.
Tyson - The Movie	Amazon Prime	Through a mix of interviews and archive film, the legendary boxer reveals his rollercoaster life. The film takes us from Tyson's early days in Brooklyn through his meteoric boxing career and subsequent lost fortune. We see a complex man, destroyed by his own hubris - a modern-day Greek tragedy.
All or Nothing Manchester City	Amazon Prime	In this ground-breaking docu-series, follow Manchester City behind the scenes throughout their Premier League winning, record-breaking '17-18 season. Get an exclusive look into one of the best global sports clubs, including never-before-seen dressing room footage with legendary coach Pep Guardiola, and delve into the players' lives off and on the pitch.
The English Game	Netflix	Two 19th-century footballers on opposite sides of a class divide navigate professional and personal turmoil to change the game — and England — forever.
All or Nothing Brazil National Team	Amazon Prime	The Brazilian National Team goes on a journey of faith, brotherhood, and hard work to reimagine their identity and to re-engage a disgruntled fanbase as they attempt to win the 2019 Copa América on home soil. From the locker room, through the trainings, to the games, we go exclusively behind-the-scenes with the world's most famous football team.
Michael Johnson: Survival of the Fastest	YouTube	Olympian Michael Johnson makes a personal genealogical and scientific journey to discover if African American and Caribbean athletes are successful as a result of slavery

Podcasts

Title	Where to find it	What it's about
The Science of Sport Podcast	Apple Android	<p>World-renowned sports scientist Professor Ross Tucker and veteran sports journalist Mike Finch break down the myths, practices and controversies from the world of sport. From athletics to rugby, soccer, cycling and more, the two delve into the most recent research, unearth lessons from the pros and host exclusive interviews with some of the world's leading sporting experts. For those who love sport.</p> <p>Stand out episodes:</p> <ul style="list-style-type: none"> ● 26/02/20 - The Science of Perfect Training ● 08/02/20 - The Shoe That Broke Running II ● 25/11/19 - Mary Cain & RED-S ● 23/10/19 - The Shoe That Broke Running ● 23/09/19 - Why the All Black Are The Greatest Sports Team ● 09/09/19 - How to Cheat at Sport and Get Away With It ● 27/08/19 - How to Make a Champion (Part II) ● 13/08/19 - How to Make a Champion (Part I) ● 09/07/19 - The Drugs In Sport Episode ● 18/08/19 - The Science of Cricket with Gary Kirsten ● 29/04/19 - Caster Semenya: Explaining Sex v Gender
That Triathlon Show	Apple Android	<p>The one triathlon show focusing on practical and actionable advice that you can use in your own triathlon training and racing. New episodes are released twice per week. Includes some excellent discussions on the science of training.</p> <p>Stand out episodes:</p> <ul style="list-style-type: none"> ● 06/02/20 - Hill repeats and long runs; Protein for endurance ● 27/01/20 - Race hydration, calories and sodium ● 06/01/20 - Volume, intensity and physiological adaptations ● 18/11/19 - Nutrition trends and current evidence ● 24/10/19 - Fueling workouts; Diet and body types ● 14/10/19 - Improve your running speed, endurance and performance ● 03/10/19 - Aerobic and anaerobic capacity ● 19/09/19 - Does compression clothing improve performance and recovery
The Clean Sport Collective	Apple Android	<p>The Clean Sport Collective is a community of powerful voices comprised of athletes, brands, events, clubs, fans and the public to support the pursuit of clean sport and athletics through the absence of performance enhancing drugs.</p>

		<p>Stand out episodes:</p> <ul style="list-style-type: none"> ● 01/02/20 - New Shoe Regulations with Ross Tucker ● 26/01/20 - Evan Dunfee - Bronze Medalist in 50km walk ● 05/01/20 - Steve Magness, Nike Oregon Project Whistleblower ● 17/11/19 - Mary Cain Tells Us Her Story ● 20/10/19 - Tyler Hamilton: Convicted Doper and Whistleblower ● 07/10/19 - Kara and Adam Goucher on the 4-Year Bans ● 31/05/19 - Travis Tygart, CEO of USADA
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Books, articles and journals

Title	Where to find it	What it's about
Touching The Void by Joe Simpson (1988)	Amazon	Simpson's harrowing account of his and Simon Yates's calamitous assault, in 1985, on Siula Grande, Peru, has rightly transcended the sport of climbing and become a legendary fable for what humans are capable of doing to survive. It centres, of course, on one of the most amazing escapes ever achieved: with Simpson hopelessly hanging off one end of a rope, Yates is faced with cutting it to prevent them both being killed. Somehow, Simpson survives the fall. But alone in a crevasse with a shattered leg, his situation is hopeless. What follows is a staggering tale of will and courage that also addresses the perennial question of what drives people to climb mountains in the first place. As Churchill said: "When you're going through hell, keep going".
SSN exercise & sports nutrition review update: research & recommendations	https://jissn.biomedcentral.com/track/pdf/10.1186/s12970-018-0242-y	This paper is an ongoing update of the sports nutrition review article originally published as the lead paper to launch the Journal of the International Society of Sports Nutrition in 2004 and updated in 2010. It presents a well referenced overview of the current state of the science related to optimization of training and performance enhancement through exercise training and nutrition. Notably, due to the accelerated pace and size at which the literature base in this research area grows, the topics discussed will focus on muscle hypertrophy and performance enhancement. As such, this paper provides an overview of: 1.) How ergogenic aids and dietary supplements are defined in terms of governmental regulation and oversight; 2.) How dietary supplements are legally regulated in the United States; 3.) How to evaluate the scientific merit of nutritional supplements; 4.) General nutritional strategies to optimize performance and enhance recovery; and, 5.) An overview of our current understanding of nutritional approaches to augment skeletal muscle hypertrophy and the potential ergogenic value of various dietary and supplemental approaches.
Peak Performance	Amazon	Peak Performance combines the inspiring stories of top performers across a range of capabilities from athletic to intellectual to artistic with the latest scientific insights into the cognitive and neurochemical factors that drive performance in all domains. Peak Performance presents the newly-discovered links that hold promise as performance boosters, but

	<p>that have been traditionally overlooked. In a concise and relatable manner, Peak Performance explains the strong connection between mind and body and how everyone can apply certain techniques to enhance their own achievements. This book is an entertaining and actionable guide to optimising personal performance that shows readers how to get the most from themselves. Brad Stulberg and Steve Magness highlight great performers across various disciplines including Olympic marathoner Meb Keflezighi, three-time Grammy Award winner Don Was, and renowned mathematician David Goss. This book discusses the science and application of each principle of success and concludes with prescriptive techniques. Unlike other performance books that are field-specific, Peak Performance cuts across domains and will attract readers and entrepreneurs involved in diverse pursuits, from athletes to artists, from hobbyists to scientists, from students to business professionals. If you want to take your game to the next level, whatever 'your game' may be, Peak Performance will teach you how.</p>
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