Subject OCR Cambridge National in Sports Science

Year 11

Curriculum Overview



Intent: By the end of year 11 students will have studied R180 Reducing the risk of sports injuries and dealing with common medical conditions. In this unit you will learn how to prepare participants to take part in sport and physical activity in a way which

minimizes the risk of injuries occurring; prepare them to be able to respond to common injuries that can occur during sport and physical activity and to recognize the symptoms of some common medical conditions.

	AUTUM 1	AUTUM 2	SPRING 1	SPRING 2	SUMMER 1	SUMMER 2
	Assessment 1			Assessment 2		
the identified terms.	physical activity and how	R182- The bodies response to physical activity and how technology informs this	R180- Reducing the risk of sports injuries	R180 -Reducing the risk of sports injuries	R180- Reducing the risk of sports injuries Actual Exam summer series (May/June)	
They are taught in small bitesize chunks and revisited regularly.	Task 2 -Long-term effects of exercise on the cardio-respiratory and Musculo-skeletal systems	Task 3 - Technology and the cardio-respiratory and musculo-skeletal systems				
	(8 GLH) 24 hours in total for 182	(8 GLH) 24hours in total for R182	(48 GLH) Mock exam Jan series	(48 GLH)		
Additional support links:	24 hours in total for 182 OCR GCSE PE Topic exploration pack Effects of exercise on body systems OCR Topic exploration pack* Adaptations to Exercise Cardiovascular System (11min 21sec video) Responses to Exercise Cardiovascular System (9min 19sec video) Adaptations to Exercise Muscular System (16min 1sec video) Responses to Exercise Respiratory System (6min 47sec video) GCSE PE - Long-Term Effects of Exercise (4min 38sec video)	24hours in total for R182 OCR Unit R182 Lesson Preparation Pack Slides 4-9 Label the heart: interactive (sciencelearn.org.nz) The Heart Song (2min 40sec video) Blood Flow through the Heart in 2 Minutes (2min 11sec video) Circulatory system physiology (7min 50sec video) Cardiovascular system — heart, structure and function (21min 32sec video) The Heart — GCSE Biology (9-1) (7min 32sec video) GCSE Biology: Blood vessels (4min 1sec video) Blood vessels — GCSE Biology	Mock exam Jan series Coaching Webinar - Keeping Your Athletes Healthy and Preventing Injuries Goal post safety History of NFL's WORST Weather Games: Snow, Rain, Heat, & More Roy Keane reflects on his famous tunnel spat with Patrick Vieira Preventing Sports Injuries- Nemours Sports Medicine Advice from the Pros	Watch This Quick-Thinking Coach Save Gymnast From Life-Threatening Fall Sports Science: NFL Defensive Tackle Kris Jenkins Vs. Average Joe Fractures (broken bones) (bupa.co.uk) Bone Stress Injuries and Stress Fractures (nhs.uk) Fractures (leicestershospitals.nhs.uk) Dislocated shoulder (nhs.uk)	What do temperatures of 20°C or more do to your running performance? When athletes lose their cool	
		blood (bbc.co.uk) PE: The Components of Blood (5min 29sec video) GCSE Biology – What Is Blood Made of? What Does Blood				
		Do? (4min 34sec video) Blood - GCSE Biology (9-1)				

volume/cardiac output In heart rate recovery In flexibility In muscle recovery / DOMs / Lactic acid In lung capacity When participating in to different intensities of sporting activities including: Short high intensity sports Endurance sports Strength based sports	(8min 28sec video) What is blood? (2min 23sec video) Task 3 - Technology and the cardio-respiratory and musculo-skeletal systems 1.1.1 Components: Heart - ventricles, atria, valves Blood cells vessels - arteries, veins, capillaries Respiratory system - trachea, lungs, alveoli, diaphragm 1.1.2 Function and role: Heart rate / pulse rate Blood pressure - stroke volume and cardiac output 1.2.1 Technology that can inform how the cardio-respiratory system is responding whilst performing in sport during warm up and performance 1.2.2 Information that technology car give sports performers on their long-term participation in physical activity 1.2.3 The benefits and drawbacks of sports technology to the sports performer	Extrinsic factors Types of sports activity: Equipment, Environment Intrinsic factors Individual variables: Psychological factors, overview of: Motivation Arousal Anxiety/stress Confidence Aggression Direct Channelled Reasons for aggression: Level of performance Retaliation Pressures to win	Topic Area 3: Different types and causes of sports injuries Acute injuries Soft tissue and hard tissue injuries Sprains , Strains, Skin damage Fractures, Dislocations Head injuries Chronic injuries: Tendonitis , Epicondylitis, Shin splints, Stress fractures	Topic Area 4: Reducing risk, treatment and rehabilitation of sports injuries and medical conditions Measures that can be taken before and during participation in sport or physical activity to reduce risk and severity of injury/medical conditions Topic Area 5: Causes, symptoms and treatment of medical conditions Overview of asthma and asthma attacks Overview of Type 1 and Type 2 diabetes - differences between Type 1 and Type 2 in relation to Sudden Cardiac Arrest (SCA) Other medical conditions	
Analytical Skills – could involve the collection and analysis of, body function, measurement and fitness level information, to problem-solve and inform evaluations and making recommendations to help improve performance	To include: • How the different components of the cardio • respiratory • system are involved in the role during • physical activity • Different stages of a warm up • Different intensities of	Coaching/instructing/leading Knowledge of techniques/rules/regulations Experience	compare and contrast causes, symptoms and treatments of each acute injury Ways of reducing risk of acute injuries Examples of different body parts (bones/muscles/ joints/tissue) that are susceptible to acute injuries	Advantages of using different types of responses and treatment for different injuries/medical conditions and the different times when treatment can be used: o Prior to performance o During performance o Immediately after injury o As part of the longer-term rehabilitation process	

Common Lexicon:	Identify, describe, explain, evaluate,	performance – short/high intensity, endurance, and strength based How to apply the components of the cardio respiratory system to the role played when participating in physical activity; in connection with the three functions and roles (1.1.2) identify, describe, explain, evaluate, justify, compare & contrast	Compare and contrast causes, common symptoms (as listed in the relevant NHS guidance) and treatments of different medical conditions identify, describe, explain, evaluate, justify, compare & contrast		
Ambition Curriculum Links:	justify, compare & contrast Find a professional club https://www.badmintonenglan d.co.uk/	Links to how to become a coach, ref, volunteer in football-https://www.thefa.com/get-involved/grassroots-football-awards	Courses to help you to become a fitness instructor https://educatefitness.co.uk/product/level-2-certificate-in-gym-instructing-online/ how to become a physical trainer in the army https://apply.army.mod.uk/?gclid=EAlalQobChMl3rXPhcTL8QIVE-3 31Ch3EJAXeEAAYASAAEgX1PD_BwE&cid=semp1073952390&ef_id=EAlalQobChMl3rXPhcTL8QIVE-3†Ch3EJAX		