

TOPIC 1: APPLIED ANATOMY & PHYSIOLOGY	
1.1 The structure and functions of the musculo-skeletal system	1.1.1 Functions of the skeleton
	1.1.2 Classification of bones
	1.1.3 Structure and their classification
	1.1.4 Classification of joints
	1.1.5 Movements possible at joints
	1.1.6 Role of ligaments and tendons
	1.1.7 Classification and characteristics of muscle types
	OCTOBER HALF-TERM
	1.1.8 Location and role of voluntary muscles
	1.1.9 Antagonistic pairs of muscles
	1.1.10 Characteristics of fast and slow twitch muscle fibre types
1.1.11 How the skeletal muscular systems work together	
1.2 The structure and functions of the cardio-respiratory system	1.2.1 Functions of the cardiovascular system
	1.2.2 Structure of the cardiovascular system
	1.2.3 Structure of arteries, capillaries and veins
	CHRISTMAS HOLIDAYS
	1.2.4 Redistribution of blood flow
	1.2.5 Function of red and white blood cells
	1.2.6 Composition of air
	1.2.7 Vital capacity and tidal volume
	1.2.8 Location of main components of respiratory system
	1.2.9 Structure of the alveoli
	FEBRUARY HALF-TERM
1.2.10 How the cardiovascular and respiratory systems work together	
1.3 Anaerobic and aerobic exercise	1.3.1 Energy
	1.3.2 Energy sources
1.4 The short- and long-term effects of exercise	1.4.1 Short-term effects on lactate accumulation, muscle fatigue and relevance on performer
	1.4.2 Short-term effects on heart rate, stroke volume and cardiac output
	1.4.3 Short-term effects on depth and rate of breathing
	EASTER HOLIDAYS
	1.4.4 How the respiratory system and cardiovascular systems work together
	1.4.5 Long-term effects of exercise on the body systems
	1.4.6 Interpretation of graphical representation of heart rate, stroke volume and cardiac output values at rest and during exercise
TOPIC 2: MOVEMENT ANALYSIS	
2.1 Lever systems	2.1.1 First, second and third class levers
	2.1.2 Mechanical advantage and disadvantage
	2.2.1 Movement patterns using body planes and axes
	2.2.2 Movement in the sagittal plane about the frontal axis (somersaults)

