

Personalised Learning Checklist – Physical Education

Exam Board	AQA
Course Name	GCSE Physical Education
Topic Module	Anatomy and Physiology (PAPER 1)

G	I am very confident, and I know this well
A	I am not very confident. I may need to check with my teacher and spend more time working on this
R	I am not confident about this at all. I need to check with my teacher and ensure I have what I need to become confident

Anatomy & Physiology					
		😊	🟡	☹️	Revision card completed (tick)
Function of the skeleton	Protection/support/movement/blood production/mineral storage/structural shape and points for attachments.				
Structure of the skeleton	Allows for movement, provides shape, the types of different bones allow for different types of movement, flat bones protect vital organs, different joints allow for different movement, the skeleton provides a point of attachment for muscles.				
Types of Bones	You need to be able to identify where these bones are on your body. Cranium, Vertebrae, Scapula, Humerus, Ribs, Sternum, Radius, Ulna, Pelvis, Femur, Tibia, Fibula, Talus, Patella (sits in front of knee).				
Types of synovial (freely moveable) joints	Synovial Joints = ball and socket (hip/shoulder)/hinge (knee/ankle/elbow)/pivot (neck)				
Structure of a synovial joint	Synovial membrane, synovial fluid, joint capsule, bursae, cartilage, ligament.				
Function of tendon, cartilage and ligaments	Definition of Tendon/cartilage/ligaments				
Names of Muscles	Biceps, triceps, deltoid, pectorals, latissimus dorsi, gluteals, quadriceps, hamstrings, gastrocnemius, rotator cuffs, abdominals, hamstring group, quadriceps group, tibialis anterior.				
Movement at a joint	Extension/flexion/adduction/abduction/rotation/circumduction/plantarflexion/dorsiflexion. You must be able to give sporting examples of each of these movements and understand what movements happens at each joint.				
Muscle Contractions	Isotonic contractions (change length) – eccentric (lengthens), concentric (shortens)– isometric contractions (stays the same) Antagonistic muscle action – agonists (prime movers), antagonists.				
Cardio-respiratory System Pathway of air	Pathway of air = mouth/nose – trachea – bronchi – bronchioles – lungs – alveoli				
Gaseous exchange	Gas exchanged at the alveoli – features that assist in gaseous exchange: large surface area of alveoli, moist thin walls (one cell thick), lots of capillaries, large blood supply, movement of gas from high concentration to low concentration.				
Characteristics of blood vessels	Capillaries/Veins/Arteries You must know the structure and function.				

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Structure of Cardiovascular System (Heart)	Structure of the cardio system to include labelling of the heart: atriums (right & left), ventricles (right & left), pulmonary and systemic circulatory systems.				
The cardiac cycle and pathway of blood	Cardiac cycle = Deoxygenated blood into the right atrium – then into the right ventricle – the pulmonary artery then transports deoxygenated blood to the lungs – gas exchange occurs (blood is oxygenated) – pulmonary vein transports oxygenated blood back to the left atrium – then into the left ventricle – before oxygenated blood is ejected and transported to the body via the aorta. Remember: Valves prevent backflow. Diastole = Filling of the chambers in the heart. Systole = Ejection of blood out of the heart.				
Definitions of Cardiac Output, Heart Rate, Stroke Volume,	Cardiac output = stroke volume x heart rate.				
Mechanics of breathing	Inhaling and Exhaling. You must understand what happens to your intercostal muscles, rib cage, diaphragm when you inhale and exhale.				
Interpretation of a spirometer trace	You need to identify the following volumes on a spirometer trace and understand how these change from rest to exercise: tidal volume/expiratory reserve volume/inspiratory reserve volume/residual volume.				
Structure of the respiratory system	To include trachea, bronchus, bronchioles, alveoli, diaphragm.				
Short-term (immediate) effects of exercise	increased heart rates, tidal volume, temperature, production of waste products.				
Anaerobic and Aerobic exercise EPOC	Definition and equations of aerobic (with oxygen) and anaerobic (without oxygen). Sporting examples of aerobic and anaerobic exercise. Definition of the term EPOC (oxygen debt)				
The recovery process (cool down/diet/ice baths)	Cool down – reduce HR and breathing rate/stretch/removal of lactic acid. Diet – rehydrate and replace carbohydrates. Ice baths – to prevent DOMS				
Immediate effects of exercise	Increase heart rate/sweating/red face/increase in breathing – explain why.				
Short term effects of exercise	Tiredness/fatigue/light headness/ nausea/ aching – delay onset of muscle soreness (DOMS)/cramp.				
Long-term effects of exercise	To include bone density, increased elasticity of muscles, hypertrophy, improved energy systems, increased stroke volume, decreased resting heart rate, blood pressure, decreased breathing frequency, increased vital capacity.				