

GCSE PHYSICAL EDUCATION REVISION CHECKLISTS





Paper 1: The human body and movement in physical activity and sport

	Topics	You should be able to	Check	Now practice an exam question:	Check
UBY	Structure & function of the musculoskeletal system	 Identify the location of the bones in the head, neck, shoulder, chest, elbow, hip, knee & ankle Describe how the Skelton provides a framework for movement: Types of bones Point of attachment Describe the function of the skeleton (protection, movement, blood cell production, mineral storage, support) Identify all of the structures of a synovial joint and describe how they help to prevent injury Describe the two types of joints that allow movement (hinge and ball & socket) Describe the different types of movement in a joint (flexion/extension/adduction etc) Identify the location of major muscles in the body Describe how the major muscles and muscle groups of the body work antagonistically on the major joints of the skeleton to affect movement in physical activity at the major movable joints 		Define adduction using a sporting example in your answer (2 marks) Define 'isometric contraction' using a sporting example in your answer. (2 marks) muscle groups. Explain how the skeletal and muscular system work together to bring about movement. (3 marks) Explain the role of long bones during a game of badminton. (3 marks)	
L.Applied anatomy and physiology	Structure & function of the Cardio- respiratory system	 Describe the pathway of air starting at the nose/mouth Describe the process of gaseous exchange at the alveoli and how the features of an alveoli and how they assist in gaseous exchange Describe the structure of arteries, veins and capillaries Describe the structure of the heart and the pathway of blood around the heart. Describe the cardiac cycle in relation to diastole (filling) and systole (ejection of blood) Understand Cardiac output, stroke volume and heart rate, and the relationship between them. Cardiac output (Q) = stroke volume x heart rate. Understand anticipatory rise, and changes in intensity Understand the Mechanics of breathing – the interaction of the intercostal muscles, ribs and diaphragm in breathing Know how to interpret a spirometer trace with particular reference to tidal volume, expiratory reserve volume, inspiratory reserve volume, residual volume. 		Identify two features of the structure of arteries. Explain how each feature helps the arteries to perform their function. (4 marks) Explain how air pressure changes occur in the chest cavity allowing exhalation to take place. Refer to the roles of the intercostal muscles, rib cage and diaphragm. (4 marks) Explain the process of gaseous exchange (4 marks) Explain two ways in which the body redistributes blood during exercise. (4 marks)	
	Aerobic & Anaerobic	 Define the terms aerobic exercise and anaerobic exercise The use of aerobic and anaerobic exercise in practical examples of differing intensities Understanding that EPOC (oxygen debt) is caused by anaerobic exercise (producing lactic acid) and requires the performer to maintain increased breathing rate after exercise to repay the debt. Describe and explain the different methods used to recover from exercise (cool down, manipulation of diet, ice baths/massage etc) 		Analyse how both aerobic and anaerobic exercise can be used in interval training to help improve performance in a team game. (9 marks) Analyse the different methods that could use to prevent injury and recover from vigorous exercise to optimise her performance.(9 marks)	
	Short & Long term effects of exercise	 Describe the immediate effects of exercise (during exercise) Describe the short term effects of exercise (up to 36 hours after) Describe the long term effects of exercise (months after) 		Explain how fatigue may occur and state the negative effect that it can have on a performer in a named physical activity.(2 marks)	

	Topics	You should be able to	Check	Now practice an exam question:	Check
Movement Analysis	Lever Systems	 Identification of first, second and third class lever systems. Basic drawings of the three classes of lever to illustrate the positioning of: Fulcrum load (resistance) effort. Draw linear versions of a lever, showing the positioning of the fulcrum, load/resistance and effort. Interpretation of sporting movements or actions which involve flexion or extension of the elbow and/or knee, and plantar or dorsi-flexion at the ankle. Understand what Mechanical advantage is in relation to the three lever systems 		Identify and draw the class of lever used at the elbow as it moves from A to B. A Using above image, identify and draw the lever system working at the elbow during the upward phase (B to A) of the push-up. Identify and draw the type of lever being used at the elbow during the forehand tennis stroke.	
2. Mov	Planes & Axes	 Identification of the relevant planes (frontal, transverse, sagittal) and axes (longitudinal, transverse, sagittal) of movement used whilst performing sporting actions Planes (frontal, transverse, sagittal) and axes (longitudinal, transverse, sagittal) should be related to sporting actions. 		Identify the plane and axes in the following pictures:	

	Topics	You should be able to	Check	Now practice an exam question:	Check
	Health & Fitness	 Know the definitions of health and fitness Understand that a decreased fitness because of ill health, ie poor health can result in an inability to train, lowers fitness. Increased fitness despite ill health, ie unhealthy but able to train, increases fitness. 		A sportsperson may be fit, but not healthy. Use examples to explain this statement.(2 marks) It is important to lift and carry equipment safely. Describe the technique that you should use when doing this. (3 marks)	
3. Physical Training	Components of fitness	 Know the definitions of the following components of fitness: Agility Balance cardiovascular endurance (aerobic power) Coordination Flexibility muscular endurance power/explosive strength (anaerobic power) reaction time strength (maximal, static, dynamic and explosive) speed. Understand and justify why the components of fitness (as stated above) may or may not be needed when performing certain physical activities and sports. 		 Define ALL OF THE COMPONENTS OF FITNESS AND Use an example of a sporting action in your answer. (2/3 marks) Justify why muscular endurance is an important component of fitness needed for a games player to perform effectively. (4 marks) Justify why flexibility is an important component of fitness needed for a games player to perform effectively. (3 marks) Explain how a 1500m runner could use speed to their advantage in a 1500m race.(3 marks) Explain how developing the different types of strength may improve an individual's performance in gymnastics. (9 marks) 	
	Fitness Testing	 Describe and explain the reasons for and limitations of fitness testing Describe how to measure the different components of fitness and how to organise the following fitness tests: agility – Illinois Agility Test balance – Stork Stand Tes cardiovascular endurance (aerobic power) – Multi Stage Fitness Test coordination – Wall Toss Test flexibility – Sit and Reach Test muscular endurance – Sit-Up Bleep Test power/explosive strength (anaerobic power) – Vertical Jump Test reaction time – Ruler Drop Test maximal strength – One Rep Max Test strength – Handgrip Dynamometer Test Maximum Strength – One Rep Max Test 		Describe how to carry out ALL OF THE FITNESS TESTS (3 marks) Matthew is a Year 7 student who is a very good all-round sportsman. He has recently undertaken a series of fitness tests to measure his fitness levels. The multi stage fitness test was used to measure Matthew's cardiovascular endurance. Discuss whether fitness testing is an appropriate way of assessing Matthew's sporting ability. (5 marks) Evaluate whether the Illinois Agility Test is more relevant to a netball player than to a 200m runner. (6 marks)	

	Topics	You should be able to	Check	Now practice an exam question:	Check
		 Know and understand the Key principles of training. SPORT to include: specificity# progressive overload Reversibility tedium. 		Michael is starting a 12-week training programme. Explain how Michael would apply the FITT principle to bring about an improvement in his fitness levels. (3 marks)	
	Principles of Training	 Know and understand the key principles of overload. FITT to include: Frequency Intensity Time type. Understand how the principles of training can be applied to bring about improvements in fitness. Application of the principles to sporting examples. 		Explain how an athlete could apply the principles of training in their fartlek training sessions in order to improve performance in cross country running. (8 marks)	
Physical Training	Types of Training	 Understand the distinctions between different types of training. Circuit training Continuous training Fartlek training Static stretching Weight training Plyometric training Altitude Training Describe and explain the advantages and disadvantages (the effects on the body) of training types linked to specific aims 		Explain how altitude training could help to improve an athlete's performance in the 1500 metres. (6 marks) Identify a suitable type of training to increase flexibility and suggest appropriate safety precautions that should be taken for this type of training. (3 marks) Explain how interval training could be used in order to improve an athlete's time for the 1500 metres. (3 marks)	
3. F	Optimise training & prevent injury	 Calculate the aerobic/anaerobic training zone: calculate maximum heart rate (220 minus age) calculate aerobic training zone (60–80% of maximal heart rate) calculate anaerobic training zone (80–90% of maximal heart rate). Calculate one repetition maximum (one rep max) as part of weight training and how to make use of one rep max, with reference to: strength/power training (high weight/low reps – above 70% of one rep max, approximately three sets of 4–8 reps) muscular endurance (low weight/high reps – below 70% of one rep max, approximately three sets of 12–15 reps) Understand the following factors to prevent injury: a warm up should be completed over training should be avoided, eg appropriate weight appropriate clothing and footwear should be worn taping/bracing should be used as necessary hydration should be maintained stretches should not be overstretched or bounce technique used should be correct, eg lifting technique appropriate rest in between sessions to allow for recovery. 		Explain what factors should be consider to reduce the chance of injury occurring during the session. (3 marks) Describe the correct technique that netball players should use when lifting their netball posts into position on the court. (2 marks) Explain how you could use your knowledge of training zones to help improve your performance in cross country running. (4 marks)	

	Topics	You should be able to	Check	Now practice an exam question:	Check
	Seasonal Aspects	 Names of the three training seasons: pre-season/preparation competition/peak/playing season post-season/transition. An understanding of what each of the seasons entails (aims): pre-season/preparation – general/aerobic fitness, specific fitness needs competition/peak/playing season - maintain fitness levels, work on specific skills post-season/transition – rest and light aerobic training to maintain a level of general fitness. An understanding of the benefits of each season to the performer. 		Westshore Netball Club train throughout the year at their local community centre and compete in a league from September to April. Using your knowledge of the training year, explain how each season could contribute to improving a player's performance at Westshore Netball Club. (9 marks)	
3. Physical Training	Warming up & cooling down	 Know and understand the constituent parts of warming up and cooling down. gradual pulse-raising activity Stretching skill based practices/familiarization mental preparation increase amount of oxygen to the working muscles. Cooling down should include: maintaining elevated breathing and heart rate, eg walk, jog gradual reduction in intensity stretching. Describe and explain the benefits of a warm up and a cool down for different sporting activities. 		Describe, using an example, what is meant by static stretching. (2 marks) Explain four reasons why Michael should warm up before taking part in a training session. (4 marks) Explain why it is important to cool down after an intensive training session. (3 marks) Describe a suitable warm-down after an intensive training session, and explain how this would help the performer to recover quickly. (6 marks)	
	Use of Data	 Types of data: Describe what Quantitative data is - Quantitative data deals with numbers. Methods for collecting quantitative data - Questionnaires & Surveys. Describe what Qualitative data is - Qualitative data deals with descriptions. Methods for collecting qualitative data - interviews & observations. Presenting Data: How to present data in tables. How to plot basic: bar charts line graphs. How to label x and y axes on bar charts and line graphs. 		Data is used in sport to improve performance and can be collected in a variety of ways. Outline the difference between quantitative and qualitative data collection. (4 marks) Explain why the score for the Multi Stage Fitness Test is quantitative data. (2 marks)	

Paper 2: Socio-cultural influences and wellbeing in physical activity and sport

	Topics	You should be able to	Check	Now practice an exam question:	Check
	Classification of Skills	 Define skill and ability Definition of the following skill classifications: basic/complex open/closed self-paced/externally paced gross/fine. Definitions of the following types of goals: performance goals (personal performance/no social comparison) outcome goals (winning/result). Appropriate performance and/or outcome targets for sporting examples. 		 Give one sporting example of a self-paced skill. Justify your choice. (3 marks) Classify the skill of a tennis serve using each of the following classifications: basic/complex open/closed self-paced/externally paced gross/fine. Justify your choices (4 marks) Outline the difference between basic and complex skills. Use sporting examples in your answer. (4 marks) 	
1.Sports Psychology	SMART Targets	 The use and evaluation of setting performance and outcome goals in sporting examples Know how to use SMART targets to improve and/or optimise performance SMART targets of goal setting are: Specific Measureable Accepted Realistic time bound. 		Outline the difference between performance and outcome goals. Use sporting examples in your answer. (4 marks)	
	Information Processing	 Explain the stages of the Information Processing Model in terms of Input Decision Making Output Feedback 		 Explain what happens at the following stages of the basic information processing model when attempting a shot in netball or basketball: Input Feedback. (4 marks) 	
	Guidance & Feedback	 Evaluate, the effectiveness of the use of types of guidance (verbal, visual, manual, mechanical), with reference to beginners and elite level performers Justify which types of guidance are appropriate for beginners and/or elite level performers Evaluation of the use of the following types of feedback with specific links to beginners and to elite level performers: positive/negative knowledge of results/knowledge of performance extrinsic/intrinsic. 		A performer can receive feedback extrinsically or intrinsically. Justify why extrinsic feedback would be more beneficial for a beginner in a sport (4 marks) Katie is a newly qualified PE teacher at a primary school. She is using verbal guidance in her teaching. Discuss the suitability of verbal guidance when teaching at a primary school. (4 marks)	

Paper 2: Socio-cultural influences and wellbeing in physical activity and sport

	Topics	You should be able to	Check	Now practice an exam question:	Check
		 Define arousal Know and be able to apply the Inverted-U Theory Explain how optimal arousal levels vary according to the skill being performed in a physical activity or sport Explain how arousal can be controlled using stress management techniques before or during a sporting performance: Knowledge of the following stress management techniques: deep breathing mental rehearsal/visualisation/imagery positive self-talk. 		Describe the relationship between arousal level and performance level in the inverted-U theory. (3 marks) Identify and describe two different stress management techniques. (4 marks) Mental rehearsal, visualisation and imagery are all stress management techniques. Identify and describe two other stress management techniques. (4 marks)	
т.эрогтз Рзуспогоду	Mental Preparation for performance	 Understand the difference between direct and indirect aggression with application to specific sporting examples Definition of direct and indirect aggression. Suggest examples of direct/indirect aggression in sport. 		Outline the difference between direct and indirect aggression. Use sporting examples in your answer. (4 marks) Describe how direct aggression may be used to improve performance. Use an example in your answer. (2marks)	0 0
		 Understand the characteristics of introvert and extrovert personality types, including examples of sports which suit these particular personality types 		Identify a sport that would be most suited to an extrovert. Justify your choice. (4 marks)	
		 Definition of intrinsic and extrinsic motivation, as used in sporting examples Be able to evaluate the merits of intrinsic and extrinsic motivation in sport 		Outline the difference between intrinsic and extrinsic motivation. Use sporting examples in your answer. (4 marks) Evaluate the effectiveness of extrinsic motivation for a beginner in sport. (4 marks)	0 0

Paper 2: Socio-cultural influences and wellbeing in physical activity and sport

	Topics	You should be able to	Check	Now practice an exam question:	Check
		 Engagement patterns in physical activity and sport can differ between different social groups. Understand factors that contribute to engagement patterns in the following social groups: 		Describe two different ways parents could help to improve a sportsperson's performance. (4 marks)	
2. Social-cultural Influences		 gender race/religion/culture age 		Explain how culture may affect an individual's participation in physical activity. (2 marks)	
	Social groups	 family/friends/peers disability. Make justifiable links between the engagement patterns of the above social groups 		Explain how a role model could have had an effect on a gymnast's level of participation or performance. (4 marks)	
		and attitudes, role models, accessibility (to facilities/clubs/activities), media coverage, sexism/stereotyping, culture/religion/religious festivals, family commitments, available leisure time, familiarity, education, socio-economic factors/disposable income, adaptability/inclusiveness.		Name two social groups and explain how they may influence a young person's decision to participate in physical activity. (4 marks)	
		 You must be able to define of commercialization and understand the relationship between sport, sponsorship and the media. 		State three different types of media. (3 marks)	_
	Commercialisation	 Definitions of sponsorship and the media. Types of sponsorship: financial 		Discuss the positive and negative effects of the use of technology in sport. (5 marks)	
		 clothing and equipment, including footwear facilities. Types of media: television 		'A sportsperson who receives sponsorship will see an improvement in their performance.' Discuss this statement. (5 marks)	
		Radiothe pressthe internet		Explain two positive effects the media could have on a sport. (4 marks)	
		 social media. Explain the positive and the negative impacts of commercialised activity (sponsorship and the media) on the following: performer sport official audience/spectator sponsor/company. 		Explain the relationship between sport, sponsorship and the media. (3 marks)	
				A netball club is seeking sponsorship to help its finances. State two different types of sponsorship and explain how each could help to improve the players' performance. (4 marks)	
		 Explain the positive and the negative impacts of technology on the following: performer sport official audience/spectator 		Sport has become commercialised due to its relationship with sponsorship and the media. Evaluate the impact that the media and sponsorship have had on sports performers. (9 marks)	
		 sponsor/company. 			

Paper 2: Socio-cultural influences and wellbeing in physical activity and sport

	Topics	You should be able to	Check	Now practice an exam question:	Check
2. Social-cultural influences	Ethical and socio-cultural issues	 Know the definitions of the following terms: etiquette sportsmanship gamesmanship contract to compete. Understand and apply the categories of prohibited substances, including the basic positive effects and negative side effects: stimulants narcotic analgesics anabolic agents peptide hormones (EPO) Diuretics Blood Doping – understand what this is, how it is done and what the side affects are. Drugs subject to certain restrictions (beta blockers) – understand what Beta Blockers are, what they do and what their side affects are. Explain which type of performers may use different types of performance enhancing drugs (PEDs) with sporting examples Explain the advantages and disadvantages of a performer taking PED's Spectator Behaviour – describe the positive and negative influences of spectator behaviour on performance. Describe and explain the reasons why hooliganism occurs and explain strategies used to combat hooliganism/spectator behaviour 		Describe the process of blood doping.(3 marks) State two positive effects of having spectators at a sporting event. (2 marks) explain two reasons why hooliganism can occur at football matches. (4 marks) The following strategies have been used to reduce hooliganism at football matches: • early kick-offs • segregation of fans. Discuss how effective each of these strategies has been in reducing hooliganism at football matches. (4 marks) Define the term 'gamesmanship' and describe two different sporting examples of gamesmanship. (3 marks) Explain how beta blockers can help improve performance. Use a sporting example in your answer.(2 marks) Suggest the negative effects on a sport if a high number of competitors tested positive for performance enhancing drugs.(4 marks) Evaluate the effects that different performance enhancing drugs (PEDs) may have on a sprinter's performance.(6 marks)	

Paper 2: Socio-cultural influences and wellbeing in physical activity and sport

	Topics	You should be able to	Check	Now practice an exam question:	Check
	Physical, emotional and social health, fitness and wellbeing	 You must know the reasons for participation in physical activity, exercise and sport, and how performance in physical activity/sport can increase health, wellbeing and fitness. Physical health & wellbeing Mental health & wellbeing Social health & wellbeing Fitness 		State three positive effects that sporting activities can have on 'mental health and wellbeing'. (3) State two positive effects that being physically active can have on mental health. (2) State two negative effects that obesity could have on an individual's mental health. (2)	
ness & well-being	The consequences of a sedentary lifestyle	 Know the definitions of sedentary an lifestyle Know, understand and be able to apply the consequences of a sedentary lifestyle to various examples. Know and understand what obesity is and how it may affect performance in physical activity and sport. Know and understand how obesity can affect physical performance, mental and social factors. Somatotypes – define the three different somatotypes and know how to identify the correct body type for different sports then be able to <i>justify</i> your choice. 		One possible consequence of a sedentary lifestyle is obesity. Identify two other consequences of a sedentary lifestyle. (2) Obesity is one possible consequence of a sedentary lifestyle. State two other possible consequences of a sedentary lifestyle. (2) Explain two negative effects that obesity could have on performance in football or hockey. (2) Explain three negative effects that obesity could have on performance in netball or basketball. (3) Discuss the suitability of athletics as a sport for an individual with an endomorph somatotype. (4)	
3. Health, Fitness &	Energy use, diet, nutrition and hydration	 Know and understand that energy is measured in calories (Kcal) and is obtained from the food we eat. The average adult male requires 2,500 Kcal/day and the average adult female requires 2,000 Kcal/day but this is dependent upon: age gender height energy expenditure (exercise). Nutrition – understand and apply the reasons for having balanced diet the role of carbohydrates, fat, protein and vitamins/minerals Reasons for maintaining water balance (hydration) Definition of dehydration - Water balance (hydration) prevents dehydration. Be able to explain what Dehydration results in. 		 State three reasons why it is important to have a balanced diet. (3) Explain how carbohydrates, protein, vitamins & minerals will help the performance of an individual in sport (6) Explain why a long distance runner requires carbohydrates and fats in his/her diet. (3) The following are two effects of dehydration on a performer: blood thickening increase in body temperature. Explain how each one may affect the performance of a marathon runner. (4) Explain how drinking water and other fluids could help to improve a sportsperson's performance.(3) Gender is one factor that can affect the required calorie intake per day for an individual. Identify and describe two other factors that affect the required calorie intake per day for an individual. (4) 	