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| **GCSE PE - RAG Checklist** | | | | |
| **Topic Area** | **Learner Must:** | **Red** | **Amber** | **Green** |
| **1.1. a. The structure and function of the skeletal system** | | | | |
| Location of major bones | • know the name and location of the following bones in the human body:  - cranium - vertebrae - ribs - sternum - clavicle - scapula  - pelvis - humerus - ulna - radius - carpals - metacarpals  - phalanges - femur - patella - tibia - fibula - tarsals  - metatarsals |  |  |  |
| Functions of the skeleton | • understand and be able to apply examples of how the skeleton provides or allows:  - support - posture  - protection - movement  - blood cell production - storage of minerals |  |  |  |
| Types of synovial joint | • know the definition of a synovial joint.  • know the following hinge joints:  - knee - articulating bones - femur, tibia  - elbow - articulating bones - humerus, radius, ulna.  • know the following ball and socket joints:  - shoulder - articulating bones - humerus, scapula  - hip - articulating bones - pelvis, femur. |  |  |  |
| Types of movement at hinge joints and ball and socket joints | • know the types of movement at hinge joints and be able to apply them to examples from physical activity/sport:  - flexion  - extension  • know the types of movement at ball and socket joints and be able to apply them to examples from physical activity/sport:  - flexion - extension  - rotation - abduction  - adduction - circumduction |  |  |  |
| Other components of joints | • know the roles of: ligament, cartilage and tendons |  |  |  |
| **1.1. b. The structure and function of the muscular system** | | | | |
| Location of major muscle groups | • know the name and location of the following muscle groups in the human body and be able to apply their use to examples from physical activity/sport:  - deltoid - trapezius  - latissimus dorsi - pectorals  - biceps - triceps  - abdominals - quadriceps  - hamstrings - gluteals  - gastrocnemius |  |  |  |
| The roles of muscle in movement | • know the definitions and roles of the following and be able to apply them to examples from physical activity/sport:  - agonist - antagonist  - fixator - antagonistic muscle action |  |  |  |
| **1.1. c. Movement analysis** | | | | |
| Lever systems | • know the three classes of lever and their use in physical activity and sport:  – 1st class - neck  – 2nd class - ankle  – 3rd class - elbow  • know the definition of mechanical advantage. |  |  |  |
| Planes of movement and axes of rotation | • know the location of the planes of movement in the body and their application to physical activity and sport:  - frontal  - transverse  - sagittal.  • know the location of the axes of rotation in the body and their application to physical activity and sport:  - frontal  - transverse  - longitudinal |  |  |  |
| **1.1. d. The cardiovascular and respiratory systems** | | | | |
| Structure and function of the cardiovascular system | • know the double-circulatory system (systemic and pulmonary).  • know the different types of blood vessel:  - arteries  - capillaries  - veins  • understand the pathway of blood through the heart:  - atria  - ventricles  - bicuspid, tricuspid and semilunar valves  - septum and major blood vessels:  - aorta  - pulmonary artery  - vena cava  - pulmonary vein.  • know the definitions of:  - heart rate  - stroke volume  - cardiac output.  • know the role of red blood cells |  |  |  |
| Structure and function of the respiratory system | • understand the pathway of air through the respiratory system:  - mouth  - nose  - trachea  - bronchi  - bronchiole  - alveoli.  • know the role of respiratory muscles in breathing:  - diaphragm  - intercostals.  • know the definitions of:  - breathing rate  - tidal volume  - minute ventilation.  • understand about alveoli as the site of gas exchange |  |  |  |
| Aerobic and anaerobic exercise | • know the definitions of:  - aerobic exercise  - anaerobic exercise.  • be able to apply practical examples of aerobic and anaerobic activities in relation to intensity and duration |  |  |  |
| **1.1. e. Effects of exercise on body systems** | | | | |
| Short-term effects of exercise | • understand the short-term effects of exercise on:  - muscle temperature  - heart rate, stroke volume, cardiac output  - redistribution of blood flow during exercise  - respiratory rate, tidal volume, minute ventilation  - oxygen to the working muscles  - lactic acid production.  • be able to apply the effects to examples from physical activity/sport.  • be able to collect and use data relating to short-term effects of exercise |  |  |  |
| Long-term (training) effects of exercise | • understand the long-term effects of exercise on:  - bone density  - hypertrophy of muscle  - muscular strength  - muscular endurance  - resistance to fatigue  - hypertrophy of the heart  - resting heart rate and resting stroke volume  - cardiac output  - rate of recovery  - aerobic capacity  - respiratory muscles  - tidal volume and minute volume during exercise  - capilliarisation.  • be able to apply the effects to examples from physical activity/sport.  • be able to collect and use data relating to long-term effects of exercise |  |  |  |
| **1.2. a. Components of fitness** | | | | |
| Components of fitness | Know the following components of fitness:  • cardiovascular endurance/stamina  - know the definition of cardiovascular endurance/stamina  - be able to apply practical examples where this component is particularly important in physical activity and sport  - know suitable tests for this component, including:  o Cooper 12 minute run/walk test  o multi-stage fitness test  • muscular endurance  - know the definition of muscular endurance  - be able to apply practical examples where this component is particularly important in physical activity and sport  - know suitable tests for this component, including:  o press-up test  o sit-up test  • speed  - know the definition of speed  - be able to apply practical examples where this component is particularly important in physical activity and sport  - know suitable tests for this component, including:  o 30m sprint test  • strength  - know the definition of strength  - be able to apply practical examples of where this component is particularly important in physical activity and sport  - know suitable tests for this component, including:  o grip strength dynamometer test  o 1 Repetition Maximum (RM)  • power  - know the definition of power  - be able to apply practical examples of where this component is particularly important in physical activity and sport  - know suitable tests for this component, including:  o ‘standing jump’ or ‘vertical jump’ tests  • flexibility  - know the definition of flexibility  - be able to apply practical examples of where this component is particularly important in physical activity and sport  - know suitable tests for this component, including:  o ‘sit and reach’ test  • agility  - know the definition of agility  - be able to apply practical examples of where this component is particularly important in physical activity and sport  - know suitable tests for this component, including:  o Illinois agility test  • balance  - know the definition of balance  - be able to apply practical examples of where this component is particularly important in physical activity and sport  - know suitable tests for this component, including:  o ‘stork stand’ test  • co-ordination  - know the definition of co-ordination  - be able to apply practical examples of where this component is particularly important in physical activity and sport  - know suitable tests for this component, including:  o ‘wall throw’ test  • reaction time  - know the definition of reaction time  - be able to apply practical examples of where this component is particularly important in physical activity and sport  - know suitable tests for this component, including:  o reaction time ruler test  • be able to collect and use data relating to the components of fitness |  |  |  |
| **1.2. b. Applying the principles of training** | | | | |
| Principles of training | • know the following definitions of principles of training and be able to apply them to personal exercise/training programmes:  - specificity  - overload  - progression  - reversibility |  |  |  |
| Optimising training | • know the definition of the elements of FITT (Frequency, Intensity, Time, Type) and be able to apply these elements to personal exercise/training programmes.  • know different types of training, definitions and examples of:  - continuous  - fartlek  - interval  o circuit training  o weight training  o plyometrics  o HIIT (High Intensity Interval Training  • understand the key components of a warm up and be able to apply examples:  - pulse raising  - mobility  - stretching  - dynamic movements  - skill rehearsal.  • know the physical benefits of a warm up, including effects on:  - warming up muscles/preparing the body for physical activity  - body temperature  - heart rate  - flexibility of muscles and joints  - pliability of ligaments and tendons  - blood flow and oxygen to muscles  - the speed of muscle contraction.  • understand the key components of a cool down and be able to apply examples:  - low intensity exercise  - stretching.  • know the physical benefits of a cool down, including:  - helps the body’s transition back to a resting state  - gradually lowers heart rate  - gradually lowers temperature  - circulates blood and oxygen  - gradually reduces breathing rate  - increases removal of waste products such as lactic acid  - reduces the risk of muscle soreness and stiffness  - aids recovery by stretching muscles |  |  |  |
| **1.3. c. Preventing injury in physical activity and training** | | | | |
| Prevention of injury | • understand how the risk of injury in physical activity and sport can be minimised and be able to apply examples, including:  - personal protective equipment  - correct clothing/footwear  - appropriate level of competition  - lifting and carrying equipment safely  - use of warm up and cool down.  • know potential hazards in a range of physical activity and sport settings and be able to apply examples, including:  - sports hall  - fitness centre  - playing field  - artificial outdoor areas  - swimming pool |  |  |  |
| **2.1. a. Engagement patterns of different social groups in physical activities and sports** | | | | |
| Physical activity and sport in the UK | • be familiar with current trends in participation in physical activity and sport:  - using different sources (such as Sport England, National Governing Bodies (NGBs) and Department of Culture, Media and Sport (DCMS))  - of different social groups  - in different physical activities and sports |  |  |  |
| Participation in physical activity and sport | • understand how different factors can affect participation, including:  - age - gender  - ethnicity - religion/culture  - family - education  - time/work commitments  - cost/disposable income  - disability - opportunity/access  - discrimination - environment/climate  - media coverage - role models.  • understand strategies which can be used to improve participation:  - promotion  - provision  - access.  • be able to apply examples from physical activity/sport to participation issues |  |  |  |
| **2.1. b. Commercialisation of physical activity and sport** | | | | |
| Commercialisation of sport | • understand the influence of the media on the commercialisation of physical activity and sport:  - different types of media  o social  o internet  o TV/visual  o newspapers/magazines.  • know the meaning of commercialisation, including sport, sponsorship and the media (the golden triangle):  - positive and negative effects of the media on commercialisation  - be able to apply practical examples to these issues.  • understand the influence of sponsorship on the commercialisation of physical activity and sport:  - positive and negative effects of sponsorship on commercialisation  - be able to apply practical examples to the issue of sponsorship |  |  |  |
| **2.1. c. Ethical and socio-cultural issues in physical activity and sport** | | | | |
| Ethics in sport | • know and understand:  - the value of sportsmanship  - the reasons for gamesmanship and deviance in sport.  • be able to apply practical examples to these concepts |  |  |  |
| Drugs in sport | • know and understand the reasons why sports performers use drugs  • know the types of drugs and their effect on performance:  - anabolic steroids  - beta blockers  - stimulants  • give practical examples of the use of these drugs in sport.  • know and understand the impact of drug use in sport:  - on performers  - on sport itself |  |  |  |
| Violence in sport | • know and understand the reasons for player violence  • give practical examples of violence in sport |  |  |  |
| **2.2 Sports psychology** | | | | |
| Characteristics of skilful movement | • know the definition of motor skills  • understand and be able to apply examples of the characteristics of skilful movement:   * efficiency - pre-determined * co-ordinated - fluent * aesthetic |  |  |  |
| Classification of skills | • know continua used in the classification of skills, including:  - simple to complex skills (difficulty continuum)  - open to closed skills (environmental continuum).  • be able to apply practical examples of skills for each continuum along with justification of their placement on both continua |  |  |  |
| Goal setting | • understand and be able to apply examples of the use of goal setting:  - for exercise/training adherence  - to motivate performers  - to improve and/or optimise performance.  • understand the SMART principle of goal setting with practical examples (Specific, Measurable, Achievable, Recorded, Timed).  • be able to apply the SMART principle to improve and/or optimise performance |  |  |  |
| Mental preparation | • know mental preparation techniques and be able to apply practical examples to their use:   * imagery - mental rehearsal * selective attention - positive thinking |  |  |  |
| Types of guidance | • understand types of guidance, their advantages and disadvantages, and be able to apply practical examples to their use:   * visual - verbal * manual - mechanical |  |  |  |
| Types of feedback | • understand types of feedback and be able to apply practical examples to their use:   * intrinsic * extrinsic * knowledge of performance * knowledge of results * positive & negative |  |  |  |
| **2.3 Health, fitness and well-being** | | | | |
| Health, Fitness and Well-being | • know what is meant by health, fitness and well-being  • understand the different health benefits of physical activity and consequences of a sedentary lifestyle:  – physical (injury, coronary heart disease (CHD), blood pressure, bone density, obesity, Type 2 diabetes, posture & fitness)  – emotional (self-esteem/confidence, stress management, image)  – social (friendship, belonging to a group, loneliness)  • be able to apply the above to different age groups.  • be able to respond to data about health, fitness and well-being |  |  |  |
| Diet and Nutrition | • know the definition of a balanced diet  • know the components of a balanced diet  - carbohydrates - proteins - fats  - minerals - vitamins - fibre  - water and hydration  • understand the effect of diet and hydration on energy use in physical activity  • be able to apply practical examples from physical activity and sport to diet and hydration |  |  |  |