Subject: GCSE Physical Education
Year 10

Autumn HT 1 - The structure and function of the Skeletal and Muscular Systems	Autumn HT 2 - Muscular Systems Continued, Movement Analysis and Components of Fitness	Spring HT 1 – Components of Fitness continued, coursework write up and Training Methods	Spring HT 2 – Applying the Principles of Training and coursework write up	Summer HT 1 – Preventing Injury in Physical Activity and Training	Summer HT 2 – The Cardiovascular, Respiratory Systems, Aerobic & Anaerobic exercise
• Location of the major Bones in the body; Cranium, Vertebrae, Ribs, Sternum, Clavicle, Scapula, Humerus, Ulna, Radius, Carpals, Metacarpals, Phalanges, Pelvis, Femur, Patella, Tibia, Fibula, Tarsals, Metatarsals •Function of the Skeleton; Support, Posture, Protection, Movement, Blood Cell Production, Storage of Minerals • Types of Synovial Joint • Types of movement at Hinge joints and Ball and Socket joints; Flexion, Extension, Abduction, Adduction, Rotation, Circumduction • Other components of Joints; Ligaments, Cartilage, Tendons • Location of the major muscle groups; Trapezius, Deltoid, Latissimus Dorsi, Bicep, Tricep, Pectorals,	• The roles of Muscles in movements; Agonist, Antagonist, Fixator COURSEWORK PIECE • Movement analysis preparation. Model examples and planning • Movement analysis write up, application of movement analysis to chosen sport/activity and skill. • Lever Systems and their use in Physical activity and Sport; 1st class, 2nd Class, 3rd Class, Mechanical Advantage • Planes of movement; Frontal, Transverse, Sagittal • Axes of Rotation; Frontal, Transverse, Longitudinal • Know the following components of fitness: cardiovascular endurance/stamina: Cooper 12 minute run/walk test multi-stage fitness test • Speed:30m sprint test • Strength: grip strength dynamometer test 1 Repetition Maximum (RM)	COURSEWORK PIECE • Applying the components of fitness to chosen sport/activity. • Ranking the COF from 1-10 • Justification of ranking in relation to chosen sport/activity. • Write up of Fitness Analysis • Identifying strengths and weaknesses from COF table • Preparation and write up of Fitness Evaluation. • Know different types of training, definitions and examples of: continuous, fartlek - interval, circuit training, weight training, plyometrics, HIIT	• Principles of training and be able to apply them to personal exercise/training programmes: specificity, overload, progression, reversibility. • FITT (Frequency, Intensity, Time, Type) and be able to apply these elements to personal exercise/training programmes. COURSEWORK PIECE	• 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.	• Double-circulatory system (systemic and pulmonary). x know the different types of blood vessel: • 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. • The definitions of: - heart rate - stroke volume - cardiac output. • The role of red blood cells • The pathway of air through the respiratory system: - mouth

Abdominals, Gluteals, Quadricep, Hamstring, Gastrocnemius	• Power: 'standing jump' or 'vertical jump' tests • Flexibility -Know the definition of flexibility: 'sit and reach' test • Agility: Illinois agility test • Balance: 'stork stand' test • Co-ordination: 'wall throw' test • Reaction time: reaction time ruler test • Collect and use data relating to the components of fitness	(High Intensity Interval Training). • Key components of a warm up and be able to apply examples: pulse raising, mobility, stretching, dynamic movements, skill rehearsal • 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. • Key components of a cool down and be able to apply examples: low intensity exercise stretching • Physical benefits of a cool down, including: - helps the body's transition back to a resting state			- nose - trachea - bronchi - bronchiole - alveoli • The role of respiratory muscles in breathing: - diaphragm - intercostals • The definitions of: - breathing rate - tidal volume - minute ventilation • Alveoli as the site of gas exchange. • Definitions of: - aerobic exercise - anaerobic exercise. • Practical examples of aerobic and anaerobic activities in relation to intensity and duration.

		- 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			