# SUBJECT Year ?? Curriculum Overview

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| **Year 10 Overview** | This qualification is designed for learners who want an introduction to Health and Fitness that includes a vocational and project-based element. The qualification will appeal to learners who wish to pursue a career in the Health and Fitness sector or progress onto further study. In year 10 students will focus on the main body systems, the effects of health & fitness, components of fitness, principles of training, fitness testing and the impact of lifestyle. There are no formal assessments undertaken during year 10. The emphasis is on the delivery of course content, students will be assessed using end of unit tests after the delivery of each topic. |

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| Week Number | Themes/ Topics | Key Knowledge & Skills | Key Assessments |
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| **1-6 (Autumn 1)** | Topic 1: Body systems<br>Skeletal system<br><br>Muscular System | 1.1.1 Structure - Locate x18 bones<br>1.1.2 Functions - S M P - store minerals, blood cell production, shape/structure<br>1.1.3 Types of bones - Types of bones, primary function & how they relate to movement - long, flat, irregular, short, sesamoid<br>1.1.4 Types of joints - Understand function and different types of joints - fixed, slightly moveable, synovial (B&S, hinge, pivot, saddle, condyloid, gliding)<br>1.1.5 Joint actions - Understand movement and how they relate to types of movement using health and fitness examples - flexion, extension, rotation, abduction, adduction, plantarflexion, dorsiflexion<br>1.1.6 Synovial joints - Understand structure, function and how to identify bones - articulating cartilage, ligaments, tendons, synovial membrane, synovial fluid, joint capsule<br>1.1.7 Structure of spine - Locate x5 areas of spine<br>1.1.8 Posture - Understand effects of posture & how to recognise changes - good/bad<br><br>1.2.1 Types of muscles - Understand characteristics & functions - cardiac/smooth/skeletal<br>1.2.2 Structure - Understand location & joint action x14<br>1.2.3 Muscle movement - Antagonistic pairs<br>1.2.4 Muscle contractions -Isometric vs isotonic<br>1.2.5 Muscle fibre types - Type 1 slow twitch vs type 2 fast twitch characteristics<br>1.2.6 Performance of muscle fibres - Type 1 slow twitch vs type 2 fast twitch effects of training | End of topic test<br><br>End of topic test |
| **7-13 (Autumn 2)** | Respiratory System<br><br>Cardiovascular system | 1.3.1 Structure - Pathway & location of air x11<br>1.3.2 Functions - Inhalation vs Exhalation<br>1.3.3 Diffusion & gaseous exchange - Features of alveoli<br>1.3.4 Respiratory measurements - Breathing rate - Tidal volume - vital capacity - inspiratory reserve volume - expiratory reserve volume - residual volume<br>1.3.5 Respiratory changes - Muscles demand more - HR increases - rate/depth of breathing increases<br><br>1.4.1 Structure & functions of blood vessels - Veins, arteries & capillaries<br>1.4.2 Blood redistribution - vascular shunting<br>1.4.3 Structure of heart - Location & structure | End of topic test<br><br>End of topic test |

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| | Energy Systems | 1.4.4 Cardiac cycle - Oxygenated & vs deoxygenated<br>1.4.5 Cardiovascular measurements - HR - MaxHR - SV - CO<br>1.4.6 Blood pressure - Systolic, Diastolic, blood pressure, factors affecting blood pressure<br><br>1.5 Energy systems - Aerobic vs Anaerobic energy | |
| **15-18 (Spring 1)** | Topic 2: Effects of health and fitness on the body systems | 2.1.1 Short term effects (up to 36 hours) - Understand short term effects, how they link to activities & why it occurs - Tidal volume - Cardiac output - stroke volume - blood pressure - hydration - muscle fatigue - DOMS - light headedness/nausea/tiredness<br>2.1.2 Long term effects (over 36hours-up to 1 month) - Understand long term effects, how they link to activities & why it occurs - CV endurance - oxygen efficiency - low blood pressure - decrease resting HR - cardiac hypertrophy - muscular endurance - muscular strength - fatigue resistance - muscle hypertrophy - increase red blood cells - flexibility - body shape changes | End of topic test |
| **19-24 (Spring 2)** | Topic 3: Components of fitness<br><br>Topic 4: Principles of Training | 3.1 Define health & fitness and understand relationship between them<br>3.2.1 HRF - Define Cardiovascular fitness, Muscular Endurance, Muscular strength, Flexibility and Body Composition - understand link with sports activities and how it can improve sports activities<br>3.2.2 SRF - Define Power, Coordination, Balance, Agility, Reaction Time and Speed - understand link with sports activities and how it can improve sports activities<br><br>4.1.1 Understanding Principles of Training - Understand x5 PofT (SPORT) and how they can be applied to meet needs of individuals - Specificity, Progression, Overload, Reversibility & Tedium<br>4.1.2 FITT - Understand FITT and how they can be applied to meet the needs of individuals to optimise performance | End of topic test<br><br>End of topic test |
| **25-30 (Summer 1)** | Topic 5: Fitness Testing | 5.1.1 HRF Fitness tests - 1. CV Endurance - Bleep test - 12 min Cooper Test - Bruce protocol test 2. MS - Dynamometer 3. ME - Sit-up test Press-up test Squat test 4. BC - BMI Skinfold 5. Flexibility sit & reach test<br>5.1.2 SRF Fitness tests - 6. P - Vertical Jump 7. C - Hand wall toss 8. B - stork stand 9. A - Illinois agility 10. RT -Ruler Drop 11. S - 30M sprint<br>5.1.3 Using data - How to collect, use and analyse data - test & re-test - normative data<br>5.1.4 Validity & reliability - V how accurate the method is - R how consistent the method is | End of topic test |

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| **31-38 (Summer 2)** | Topic 6: Impact of Lifestyle | 5.2 Methods of training - Understand different methods, how they support different individual goals & how to set up a training schedule - Continuous - Interval - Fartlek - Circuit - Weight - Plyometric – Flexibility<br>5.3.1 Heart Rate and training zones - Understand HR Target Zones and how to apply to individual goals MHR - 60%-80%<br>5.3.2 Repetitions and sets - Understand reps & sets range and how to apply them to support individual goals<br>6.1.1 Activity levels - Understand active/sedentary lifestyles and how to classify moderate/vigorous 6.1.2 Diet - Understand how key nutrients and what a balanced diet consists of<br>6.1.3 Rest & recovery - Importance of sleep, cool down, diet, ice baths, rehydration.<br>6.1.4 Other factors - Understand negative effects and links to effects in specific sports - drugs - smoking - alcohol - stress | End of topic test<br><br>End of topic test<br><br>End of year test |