



Yr 13 Curriculum Grid



A LEVEL PE

| Year/Term | Unit | Intent |
|-----------|--|---|
| Overall | Exercise Physiology and Biomechanical Movement | <p>Students should understand the adaptations to the body systems through training or lifestyle, and how these changes affect the efficiency of those systems.</p> <p>Students should develop knowledge and understanding of motion and forces, and their relevance to performance in physical activity and sport.</p> <p>Students should have a knowledge and use of biomechanical definitions, equations, formulae, and units of measurement and demonstrate the ability to plot, label and interpret biomechanical graphs and diagrams.</p> |
| Autumn 1 | Diet and nutrition and their effect on physical activity and performance | <ul style="list-style-type: none"> • Understand the exercise-related function of food classes. • Positive and negative effects of dietary supplements/manipulation on the performer. |
| Autumn 2 | <p>Preparation and training methods in relation to maintaining physical activity and performance</p> <p>Injury prevention and the rehabilitation of injury</p> | <p>Students should understand quantitative methods, the types and use of data for planning, monitoring, and evaluating physical training, and to optimise performance.</p> <ul style="list-style-type: none"> • Understanding of the key terms relating to laboratory conditions and field tests. • Physiological effects and benefits of a warm-up and cool down. • Principles of training. • Application of principles of periodisation. • Training methods to improve physical fitness and health. <ul style="list-style-type: none"> • Types of injury. • Understanding different methods used in injury prevention, rehabilitation, and recovery. • Physiological reasons for methods used in injury rehabilitation. • Importance of sleep and nutrition for improved recovery. |
| Spring | Biomechanical movement | Students should develop knowledge and understanding of motion and forces, and their relevance to performance in physical activity and sport. |



Yr 13 Curriculum Grid

A LEVEL PE

| | | |
|--------|--|--|
| | Levers | <p>Students should have a knowledge and use of biomechanical definitions, equations, formulae, and units of measurement and demonstrate the ability to plot, label and interpret biomechanical graphs and diagrams.</p> <ul style="list-style-type: none"> • Newton’s Three Laws of linear motion applied to sporting movements. • Definitions, equations, and units of example scalars. • Centre of mass. • Factors affecting stability. <ul style="list-style-type: none"> • Three classes of lever and examples of their use in the body during physical activity and sport. • Mechanical advantage and mechanical disadvantage of each class of lever. |
| Summer | <p>Linear motion</p> <p>Angular motion</p> <p>Projectile motion</p> <p>Fluid mechanics</p> | <ul style="list-style-type: none"> • An understanding of the forces acting on a performer during linear motion. • Definitions, equations, and units of vectors. • Definitions, equations, and units of scalars. • The relationship between impulse and increasing and decreasing momentum in sprinting through the interpretation of force/time graphs. <ul style="list-style-type: none"> • Application of Newton’s laws to angular motion. • Definitions and units for angular motion. • Conservation of angular momentum during flight, moment of inertia and its relationship with angular velocity. <ul style="list-style-type: none"> • Factors affecting horizontal displacement of projectiles. • Factors affecting flight paths of different projectiles. • Vector components of parabolic flight. <ul style="list-style-type: none"> • Dynamic fluid force. • Factors that reduce and increase drag and their application to sporting situations. • The Bernoulli principle applied to sporting situations. |