



Topic Name	Term	Skills Developed	Next link in curriculum	Other Notes
Joints, movements and muscles	Autumn	<ul style="list-style-type: none"> • Knowledge of the shoulder, elbow, wrist, hip, knee and ankle joints – including type of joint, articulating bones, controlling muscles and movements. • Planes of movement – frontal, transverse, sagittal. • Types of contraction • Functional roles of muscles. • Analysis of movement. • Skeletal muscle contraction • Muscle contraction during exercise of differing intensities and during recovery 	<ul style="list-style-type: none"> • Tracker test, End of year examination. • Used in the EAPI assessment. • Links ATP and Energy Systems covered in Year 13. 	<p>Extension from work covered in OCR GCSE theory.</p> <p>Cross-curricular links – biology.</p>
Cardiovascular system at rest Cardiovascular system during exercise of differing intensities and during recovery	Autumn	<ul style="list-style-type: none"> • The relationship between and resting values for heart rate, stroke volume and cardiac output. • The cardiac cycle – diastole and systole. • The conduction system of the heart linked to the cardiac cycle. • The effects of exercise and recovery on heart rate, stroke volume and cardiac output. • Redistribution of cardiac output during differing intensities of exercise and during recovery (vascular shunt mechanism) • Mechanisms of venous return. • Regulation of heart rate during exercise. 	<ul style="list-style-type: none"> • Tracker test, End of year examination. • Used in the EAPI assessment. • Calculations • Links to Environmental Factors covered in Year 13. 	<p>Extension from work covered in OCR GCSE theory.</p> <p>Cross-curricular links – biology, mathematics.</p>



<p>Respiratory system at rest</p> <p>Respiratory system during exercise of differing intensities and during recovery</p>	<p>Autumn</p>	<ul style="list-style-type: none"> Relationship between resting values – breathing frequency, tidal volume, minute ventilation. Mechanics of breathing at rest. Effects of differing intensities of exercise and recovery on breathing frequency, tidal volume and minute ventilation. Mechanics of breathing during differing intensities of exercise. Regulation of breathing during exercise of different intensities and during recovery- neural and chemical control Gaseous exchange – effects of differing intensities of exercise and recovery. 	<ul style="list-style-type: none"> Tracker test, End of year examination. Used in the EAPI assessment. Calculations Links to Environmental Factors covered in Year 13. 	<p>Extension from work covered in OCR GCSE theory.</p> <p>Cross-curricular links – biology, mathematics.</p>
<p>Diet and nutrition</p>	<p>Spring</p>	<ul style="list-style-type: none"> The function and importance of the components of a healthy, balanced diet. Energy intake and expenditure and energy balance in physical activity and performance. 	<ul style="list-style-type: none"> Tracker test, End of year examination. Used in the EAPI assessment. Calculations 	<p>Extension from work covered in OCR GCSE theory.</p> <p>Cross-curricular links – biology, mathematics, food technology, health and social care.</p>
<p>Ergogenic Aids</p>	<p>Spring</p>	<ul style="list-style-type: none"> Use of ergogenic aids, potential benefits and risks. 	<ul style="list-style-type: none"> Tracker test, End of year examination. 	



Aerobic training	Spring	<ul style="list-style-type: none">• Definitions of aerobic capacity and maximal oxygen uptake.• Factors (e.g. gender) affecting VO₂ max.• Methods of evaluating aerobic capacity.• Training to develop aerobic capacity.• Use of target heart rates as an intensity guide.• Physiological adaptations from aerobic training.• Activities and sports in which aerobic capacity is a key fitness component.	<ul style="list-style-type: none">• Tracker test, End of year examination.• Used in the EAPI assessment.• Calculations	Extension from work covered in OCR GCSE theory.
Strength training	Spring	<ul style="list-style-type: none">• Types of strength (e.g. strength endurance).• Factors (e.g. .fibre type) affecting strength.• Methods of evaluating strength.• Training to develop strength.• Physiological adaptations from strength training.• Activities and sports in which strength is a key fitness component.	<ul style="list-style-type: none">• Tracker test, End of year examination.• Used in the EAPI assessment.	Extension from work covered in OCR GCSE theory.
Flexibility training	Spring	<ul style="list-style-type: none">• Types of flexibility (e.g. static).• Factors (e.g. .fibre type) affecting flexibility.• Methods of evaluating flexibility.• Training to develop flexibility.• Physiological adaptations from flexibility training.• Activities and sports in which flexibility is a key fitness component.	<ul style="list-style-type: none">• Tracker test, End of year examination.• Used in the EAPI assessment.	Extension from work covered in OCR GCSE theory.



Periodisation of training	Spring	<ul style="list-style-type: none">• Periodisation cycles – macrocycle, mesocycle and microcycle.• Phases of training.• Tapering to optimise performance.• Planning a health and fitness programme for aerobic, strength and flexibility training.	<ul style="list-style-type: none">• Tracker test, End of year examination.• Used in the EAPI assessment.	
Impact of training on lifestyle diseases	Summer	<ul style="list-style-type: none">• The effects of training on lifestyle diseases – CHD, stroke, atherosclerosis, heart attack, asthma and COPD	<ul style="list-style-type: none">• Tracker test, End of year examination.• Used in the EAPI assessment.	Cross-curricular links – biology, health and social care.
Biomechanics	Summer	<ul style="list-style-type: none">• Define and apply Newton's laws of motion.• Forces• Levers• Analysing movement through the use of technology.	<ul style="list-style-type: none">• Tracker test, End of year examination.• Used in the EAPI assessment.• Links to Biomechanics covered in Year 13.	Cross-curricular links –physics, mathematics.