



Topic Name	Term	Skills Developed	Next link in curriculum	Other Notes
Joints, movements and muscles	Autumn	<ul style="list-style-type: none"><li>• Knowledge of the shoulder, elbow, wrist, hip, knee and ankle joints – including type of joint, articulating bones, controlling muscles and movements.</li><li>• Planes of movement – frontal, transverse, sagittal.</li><li>• Types of contraction</li><li>• Functional roles of muscles.</li><li>• Analysis of movement.</li><li>• Skeletal muscle contraction</li><li>• Muscle contraction during exercise of differing intensities and during recovery</li></ul>	<ul style="list-style-type: none"><li>• Tracker test, End of year examination.</li><li>• Used in the EAPI assessment.</li><li>• Links ATP and Energy Systems covered in Year 13.</li></ul>	<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"><li>• The relationship between and resting values for heart rate, stroke volume and cardiac output.</li><li>• The cardiac cycle – diastole and systole.</li><li>• The conduction system of the heart linked to the cardiac cycle.</li><li>• The effects of exercise and recovery on heart rate, stroke volume and cardiac output.</li><li>• Redistribution of cardiac output during differing intensities of exercise and during recovery (vascular shunt mechanism)</li><li>• Mechanisms of venous return.</li><li>• Regulation of heart rate during exercise.</li></ul>	<ul style="list-style-type: none"><li>• Tracker test, End of year examination.</li><li>• Used in the EAPI assessment.</li><li>• Calculations</li><li>• Links to Environmental Factors covered in Year 13.</li></ul>	<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"> <li>Relationship between resting values – breathing frequency, tidal volume, minute ventilation.</li> <li>Mechanics of breathing at rest.</li> <li>Effects of differing intensities of exercise and recovery on breathing frequency, tidal volume and minute ventilation.</li> <li>Mechanics of breathing during differing intensities of exercise.</li> <li>Regulation of breathing during exercise of different intensities and during recovery- neural and chemical control</li> <li>Gaseous exchange – effects of differing intensities of exercise and recovery.</li> </ul>	<ul style="list-style-type: none"> <li>Tracker test, End of year examination.</li> <li>Used in the EAPI assessment.</li> <li>Calculations</li> <li>Links to Environmental Factors covered in Year 13.</li> </ul>	<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"> <li>The function and importance of the components of a healthy, balanced diet.</li> <li>Energy intake and expenditure and energy balance in physical activity and performance.</li> </ul>	<ul style="list-style-type: none"> <li>Tracker test, End of year examination.</li> <li>Used in the EAPI assessment.</li> <li>Calculations</li> </ul>	<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"> <li>Use of ergogenic aids, potential benefits and risks.</li> </ul>	<ul style="list-style-type: none"> <li>Tracker test, End of year examination.</li> </ul>	



Aerobic training	Spring	<ul style="list-style-type: none"><li>• Definitions of aerobic capacity and maximal oxygen uptake.</li><li>• Factors (e.g. gender) affecting VO<sub>2</sub> max.</li><li>• Methods of evaluating aerobic capacity.</li><li>• Training to develop aerobic capacity.</li><li>• Use of target heart rates as an intensity guide.</li><li>• Physiological adaptations from aerobic training.</li><li>• Activities and sports in which aerobic capacity is a key fitness component.</li></ul>	<ul style="list-style-type: none"><li>• Tracker test, End of year examination.</li><li>• Used in the EAPI assessment.</li><li>• Calculations</li></ul>	Extension from work covered in OCR GCSE theory.
Strength training	Spring	<ul style="list-style-type: none"><li>• Types of strength (e.g. strength endurance).</li><li>• Factors (e.g. fibre type) affecting strength.</li><li>• Methods of evaluating strength.</li><li>• Training to develop strength.</li><li>• Physiological adaptations from strength training.</li><li>• Activities and sports in which strength is a key fitness component.</li></ul>	<ul style="list-style-type: none"><li>• Tracker test, End of year examination.</li><li>• Used in the EAPI assessment.</li></ul>	Extension from work covered in OCR GCSE theory.
Flexibility training	Spring	<ul style="list-style-type: none"><li>• Types of flexibility (e.g. static).</li><li>• Factors (e.g. fibre type) affecting flexibility.</li><li>• Methods of evaluating flexibility.</li><li>• Training to develop flexibility.</li><li>• Physiological adaptations from flexibility training.</li><li>• Activities and sports in which flexibility is a key fitness component.</li></ul>	<ul style="list-style-type: none"><li>• Tracker test, End of year examination.</li><li>• Used in the EAPI assessment.</li></ul>	Extension from work covered in OCR GCSE theory.



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