



Year 12 Curriculum intent – 2022-23

	Autumn Term		Spring Term		Summer Term	
	1	2	1	2	1	2
Key Concepts	<p>The Living Environment</p> <p>Pupils are given the opportunity to studying the living environment with emphasis placed upon how organisms interact with their biotic surroundings. Firstly pupils are introduced to how the living environment has been fostered to develop by a series of physical phenomena such as orbital location and behaviour and the atmosphere. Pupils will explore the ways in which biota have driven change to the planet and how the historical conditions have changed. Pupils investigate how our monitoring of these</p>	<p>The Physical Environment</p> <p>This unit focuses on the physical processes which drive our climate and their interactions. It places attention on anthropogenic activities which may threaten these processes. From this management techniques can be explored to reduce the effects of over-exploitation of natural resources. Pupils are introduced to the physical processes driving the planet including the atmosphere, wind patterns, ocean currents. Following this pupils explore how anthropogenic changes may be causing shifts in</p>	<p>The Living Environment</p> <p>The continuation of this unit will focus upon how human understanding of the living environment can lead to well informed decisions which will promote sustainable human activities. Firstly pupils explore examples of habitat management and the provision of abiotic and biotic factors to support species survival. Pupils are introduced to the concept of plagioclimax habitats and their importance as well as the management of both desirable and undesirable species.</p>	<p>The physical Environment</p> <p>Pupils will deepen their knowledge and understanding of the lithosphere by exploring a key resource on Earth, soil. This is utilised as a context for different management strategies and environmental impacts; including fertility and erosion.</p> <p>Pollution This unit has strong links to the physical environment. Pupils will gain a more in depth knowledge the properties of various pollutants and innovative ways their impacts can be minimised. Both contemporary and historical incidences</p>	<p>Revision of the living environment</p> <p>Pupils will also explore a range of practical skills including sampling methodologies, utilisation of data, statistical scientific methods.</p>	<p>Revision of the physical environment and pollution</p> <p>Pupils will also explore a range of practical skills including sampling methodologies, utilisation of data, statistical scientific methods.</p>



	<p>conditions has developed over time. Following this pupils will delve into the world of conservation exploring a range of strategies, complex ecosystem interactions, the key legislation surrounding conservation efforts and how the impacts are monitored and measured.</p>	<p>these patterns resulting in global climate change; and the difficulties in predicting and monitoring the impacts. They will investigate ozone depletion. Following this pupils will study the hydrosphere as an example of exploitation and sustainable development. Pupils are given opportunity to explore our exploitation of geological resources and the impacts. Finally pupils will be deepen their understanding of biogeochemical cycles.</p>		<p>are explored.</p>		
<p>Knowledge & Understanding</p>	<p>Students following the AQA A-level Environmental Science specification will build upon their knowledge and understanding throughout the year. Pupils will continuously be introduced to new content and concepts relevant to today's environmental landscape. Students are provided with ample opportunity to apply these in contextualised</p>	<p>Students following the AQA A-level Environmental Science specification will build upon their knowledge and understanding throughout the year. Pupils will continuously be introduced to new content and concepts relevant to today's environmental landscape. Students are provided with ample opportunity to apply these in contextualised</p>	<p>Students following the AQA A-level Environmental Science specification will build upon their knowledge and understanding throughout the year. Pupils will continuously be introduced to new content and concepts relevant to today's environmental landscape. Students are provided with ample opportunity to apply these in contextualised</p>	<p>Students following the AQA A-level Environmental Science specification will build upon their knowledge and understanding throughout the year. Pupils will continuously be introduced to new content and concepts relevant to today's environmental landscape. Students are provided with ample opportunity to apply these in contextualised</p>		



situations. Students will obtain scientific knowledge which can be applied to many different industries allowing them to potentially access many different sectors.

The Living Environment

- How the main conditions, which allow early life to develop and survive on planet Earth, came about
- How the presence of life on earth has brought about environmental change
- How historical conditions for life were monitored in the past and how these methods have been developed over time
- The importance of the conservation of biodiversity
- Sustainable habitat management
- Protecting species
- Ecosystem interactions
- Human influence of biodiversity
- Setting conservation priorities
- Legislation
- Captive breeding and release programmes
- Habitat conservation
- Ecological monitoring techniques

The physical environment

- The atmosphere
- Global climate change

situations. Students will obtain scientific knowledge which can be applied to many different industries allowing them to potentially access many different sectors.

The Living Environment

- How adaptation to the environment affects species habitat requirements and influences conservation decision making
- Ecological terminology to describe the roles of living organisms
- Key ecological terminology to describe roles of living organisms
- Control of ecological succession in conserving plagioclimax
- Population control of desirable and undesirable species

The physical Environment

- Soil fertility
- Soil degradation and erosion
- Management strategies

Pollution

- Pollutant properties
- Factors effecting dispersal
- Factors driving degradation
- Principles of control
- Control techniques of many pollutants
- Development of new control technology

situations. Students will obtain scientific knowledge which can be applied to many different industries allowing them to potentially access many different sectors. During this term pupils will gain more experience in research methods as well as exam technique utilising AS assessment resources.

- Exam technique
- Practical skills
- Working scientifically
- Evaluation and critical thinking



			- Research	- Research	- Research - Working scientifically - Statistical analysis - Sampling methodology	- Research - Working scientifically - Statistical analysis - Sampling methodology
Aspirations & Careers	<p>By studying Environmental Science pupils are preparing themselves for future labour market developments in a growing local industry. Career options are broad and may include:</p> <ul style="list-style-type: none"> - Environmental consultant - Horticulturalist - Environmental engineer - Minerals surveyor - Conservation officer - Sustainability consultant - Waste management officer - Toxicologist - Landscape architect - Civil engineering 					
End points	<p>By the end of year 12, students will have developed a comprehensive knowledge surrounding the living environment (3.2), the physical environment (3.2) and pollution (3.4). They will have developed mastery surrounding the scientific jargon to be utilised in these environmental sectors. Pupils will have gained an deep understanding of the scientific method and be able to confidently use their critical thinking skills to evaluate scientific research.</p>					