Scheme of Work 2025/26

Environmental Science A Level Yr 13

Week	Specification reference	Content	Comments	Practical sessions and Maths Skills	Resources and Homework
8 th Sept	3.3 Energy resources	3.3.1 The importance of energy supplies in the development of society 3.3.2 The impact of the features of energy resources on their use	Students should understand that each energy resource has its own features which make it applicable to particular uses. Technologies in current use often developed to match them to the available energy resources. New energy technologies may need additional technologies to be fully usable, eg storage.		Induction test
15 th Sept		3.3.3 The sustainability of current energy resource exploitation 3.3.4 Strategies to secure future energy supplies 3.3.4.1 Evaluation of improved extraction / harnessing / processing technologies related to a range of energy technologies Non-renewable energy resources Fossil fuels	Students should analyse and evaluate key issues and quantitative data to evaluate the potential future contribution of each energy resource. Students should understand how specific technologies increase the usability of each energy resource		Flipped learning, properties and environmental impacts of non-renewable energy resources
22 nd Sept		Fossil fuels New technology			
29 th Sept		Nuclear energy Renewable energy			Flipped learning, properties and environmental impacts of renewable energy resources

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6 th		Solar energy			
Oct		HEP			
		Wind power			
13 th					
		Wave power			
Oct		Biofuels			
		Geothermal energy			
		Tidal energy			
o o th		Energy fluctuations			
20 th		3.3.4.2 New energy			
Oct		conservation technologies			
		Transport systems			
		Buildings			
		Industry			
	Half term				
3 rd	3.4 Pollution	3.4.1 The properties of	Students should consider how		
Nov		pollutants	the properties of pollutants		
		3.4.2 How environmental	affect behaviour in the		
		features affect the severity of	environment, their harmful		
		pollution	impacts and the strategies that		
		Temperature inversion	can be used to minimise		
			problems.		
			Students should use examples		
			to explain how environmental		
			features affect the behaviour of		
			pollutants and the severity of		
			pollution caused		
			•		
			Students should understand		
			the effect of point and diffuse		
			sources on the dispersal and		
			concentration of pollutants		
10 th		3.4.3 Strategies to control	,		Assessment on Energy
Nov		pollutants based on their			Resources
		properties and			Flipped learning, properties
					and environmental impacts of
		features of the environment			atmospheric and hydrosphere
		Critical group monitoring			pollutants
		Atmospheric pollution			ponatanto

Nov Carbon monoxide Water pollution Thermal pollution Oil pollution Pesticide pollution Nov Organic nutrient pollution Organic nutrient pollution Organic nutrient pollution Sewage Acid mine drainage Heavy metal pollution 1st Dec Mercury Solid waste Specialist solid waste Specialist solid waste Specialist solid waste Industrial noise Rallway noise Traffic noise Industrial noise Industrial noise Domestic noise Radication Uses Scientific principles Effects Controls 5st Sin 3. 5 Biological Fesources Radicactive waste management that agriculture involves the control of food webs to divert photosynthetic energy into human food. This involves the control of food webs to divert photosynthetic energy into human food. This involves the control of abiotic and biotic factors to maximise production. 19th Selective breeding Jan Clorning Selective breeding Selective	17 th		Dhotophomical amon			
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26 th	Bioenergetics		
Jan	Intensive and extensive		
	farming		
	Energy ratios		
	Hydrological cycle		
	Social, economic and political		
	influences		
2 nd	Agriculture sustainability		
Feb			
9 th			Contingency mocks
Feb			3
Spring I	Half term		
23 rd	3.5.2 Aquatic food	Students should	
Feb	production systems	understand that fishing is	
	Marine productivity	the last large-scale human	
	Fishing	hunting activity. While	
	T lotting	aquatic species are	
		renewable resources,	
		humans can easily exploit	
		populations above the	
		Maximum Sustainable	
		Yield.	
		Aquaculture allows	
		humans to control	
		productivity of aquatic	
		species but has not yet	
		increased food supplies in	
		the way that agriculture	
2 nd	MCV	has on land.	
	MSY Deducing impost		
Mar	Reducing impact		
O th	Aquaculture	 	
9 th	3.5.3 Forest resources	Trees are a renewable	
Mar	Resources	resource but their slow	
	Life support systems	growth rate and the need	
	Productivity	for land for other purposes	
		has caused a significant	
		reduction in global forest	
		area.	

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16 th	3.6	3.6.1 Dynamic equilibria	Students should	
Mar	Sustainability	Introduction	understand the role of	
			dynamic equilibria in	
			natural and human	
			systems and how this	
			understanding may be	
			used to develop	
			sustainable human	
			societies.	
23 rd		Positive feedback mechanisms	The use of mineral resources	
Mar		3.6.3 Material cycles	should be re-considered to	
		3.6.2 Energy	evaluate how an	
			understanding of natural	
			cyclical processes may	
			increase the sustainability of	
			human systems.	
			Students should understand	
			that future energy will be	
			affected by changing	
			availability, the development of	
			new technologies, economic	
			factors and environmental	
			concerns. Natural systems are	
			driven by energy in very	
			different ways from	
			anthropogenic systems. The	
			principles of natural systems	
			being driven by renewable, low	
			energy-density processes at	
			low temperatures should be	
			contrasted with human	
			systems to consider how	
			copying natural systems could	
			help the development of a	
			sustainable society	
Easter	Holidays			
13 th	-	3.6.4 The circular economy	The circular economy should	
April		1	be evaluated as a possible	
•			development strategy that	
ı	1		development strategy that	

		engages in a benign way with natural systems. These should be considered in terms of the development of sustainable lifestyles using circular economy principles.	
		Students should reconsider the sustainability of natural processes studied throughout the course, especially those emphasised in sections Dynamic equilibria, Energy and Material cycles, to evaluate the ways human society may become sustainable.	
20 th April			
27 th April			
4 th May			
11 th May			
18 th May			