

Supplementary Files

Table S1. Environmental stewardship and related concepts in the Years 11–13 Geography syllabus.

Strand Title	Year	Topic/Sub-strand Relating to Sustainability, Environment, Biodiversity, CC and DRR	Aspects of Environmental Stewardship Education	Estimated Teaching Hours on the Sustainability* <u>Environment</u> , Biodiversity🌱, CC and DRR per Year	Total Teaching Hours for the Strand per Year	% Of Teaching Time (All Strands Years 11-13) on Stewardship
Natural Processes	11	Living with natural hazards – tropical cyclones, volcanoes, earthquakes	Impact of disasters on the environment	<u>13</u>	29	3
		Use and management of natural resources – natural resources terms, water distribution	Sustainable management of resources	7*	21	2
		The natural landscape – geomorphology, weathering, fluvial, aeolian erosion	Different geographic environments	<u>4</u>	16	1
	12	The natural landscape		<u>36</u>	36	9
	13	Internal Assessment	Nature and causes of climate change	<u>13</u>	40	3
Cultural Processes	11	Consequences of population growth	Migration and human impacts on the environment	<u>3</u>	25	1
	12	The challenges of urbanisation and urban environment		<u>3</u>	51	1
		Effects of tourism on people, economy and environment	Eco-tourism and the impacts of tourism on the environment	<u>2</u>	37	1
	13	Cultural processes in different environments	Impact of cultural process on the environment	<u>3</u>	32	1
Geographical Skills	11	Practical skills – drawing and graphic	Reporting and Research skills	<u>5</u>	17	1
	12	Skills and field research	Mapping and research skills	<u>18</u>	20	4
	13	Practical skills, key concepts and ideas	Planning, evaluating and strategizing skills	<u>4</u>	40	1
Practical Research	13	Internal Assessment	-	-	32	?
All strands	11		$\left. \begin{array}{l} \underline{13} + 7^* + \underline{4} + \underline{3} + \underline{5} = 32 \\ \underline{36} + \underline{3} + \underline{2} + \underline{18} = 59 \\ \underline{13} + \underline{3} + \underline{4} = 20 \end{array} \right\} 111$		$\left. \begin{array}{l} 108 \\ 144 \\ 144 \end{array} \right\} 396$	$\left. \begin{array}{l} 30\% \\ 41\% \\ 14\% \end{array} \right\} 28\%$
	12					
	13					

Table S2. Environmental stewardship and related concepts in Years 11–13 biology syllabus.

Strand Title	Year	Topic/Sub-strand Relating to Sustainability, Environment, Biodiversity, CC and DRR	Aspects of Environmental Stewardship Education	Estimated Teaching Hours on the Sustainability* <u>Environment</u> , Biodiversity☼, CC and <i>DRR</i> per Year	Total Teaching Hours for the Strand per Year	% Of Teaching Time (All Strands Years 11- 13) on Stewardship
Organisms Level Biology	12	Excretion in animals	Excretory system of animals	<u>1</u>	36	0.3
	13	Ecological niche	Animal species habitat and/or niche	<u>3</u>	14.5	0.8
		Timing responses	Environmental destruction on some organism’s biological clocks and survival	<u>2</u>	14.5	0.5
		Intraspecific interaction	Mating and courtship influence survival of species	<u>3</u>	14.5	0.8
		Internal Assessment	Investigation on an Ecological Niche	<u>14.5</u>	14.5	3.7
Environmental Biology	11	Populations, communities and ecosystems	Decomposer’s importance to the environment	<u>1</u>	29	0.3
		Environmental impact study	Human impact on the environment	<u>5</u>	29	1
	12	Ecosystem	Biodiversity and ecosystem services	2☼	12	0.5
		Internal Assessment	Environmental investigation	<u>14</u>	14	3.5
	13	Climate change	Consequences of climate change on biodiversity	<u>4</u> ☼	7	1
		Conservation (afforestation, reforestation, use of renewable energy)	<u>3</u>	7	0.8	
		Internal Assessment	Poster on climate change	<u>15</u>	15	3.8
All strands	11 12 13		$\left. \begin{array}{l} \underline{1} + \underline{5} = 6 \\ 1 + 2\text{☼} + \underline{14} = 17 \\ \underline{3} + \underline{2} + \underline{3} + \underline{14.5} + 4\text{☼} + 3 + \underline{15} = 45 \end{array} \right\} 68$	$\left. \begin{array}{l} 108 \\ 144 \\ 144 \end{array} \right\} 396$	$\left. \begin{array}{l} 6\% \\ 12\% \\ 31\% \end{array} \right\} 17\%$	