



# Environmental Systems Unit Plan



Day	Lesson	Expectations	Activities	Resources
1	Components of the Earth	<ul style="list-style-type: none"> <li>– evaluate the contributions to their daily life made by various characteristics of the biosphere, lithosphere, atmosphere, and hydrosphere;</li> <li>– use appropriate terminology (e.g., ecology, biodiversity, carrying capacity, “ecological footprint”, sustainable development, global commons) when communicating results of inquiries related to the environment and resource management.</li> </ul>	Introduction	
			Components of the Earth	
			Key Terms	
	Earth’s Systems	<ul style="list-style-type: none"> <li>– analyse how matter and energy flow (e.g., in nutrient cycles; carbon, nitrogen, and hydrologic cycles; energy transfers) through the lithosphere, atmosphere, hydrosphere, and biosphere;</li> <li>– explain interactions between producers, consumers, and decomposers within a selected ecosystem;</li> <li>– explain the process of bio-accumulation of chemicals within the food chain;</li> <li>– demonstrate how the earth is a self-sustaining system (e.g., using the analogy of a spaceship, the Biosphere Project);</li> </ul>	Nutrient Cycles	
			Energy Transfers	
			Self-Sustaining Systems	
	Ecosystems	<ul style="list-style-type: none"> <li>– describe selected relationships among the earth’s diverse natural systems (e.g., climate, soils, vegetation, wildlife);</li> <li>– analyse how various factors contribute to the fragility and/or resilience of selected ecosystems.</li> <li>– identify the factors that contribute to the survival of a species within an ecosystem (e.g., genetic characteristics, availability of habitat, population size).</li> <li>– describe the variety, complexity, and</li> </ul>	Composition	
			Survival of the Fittest	
			The GTA Bioregion	

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		evolutionary characteristics (e.g., primary and secondary succession) of selected ecosystems; – illustrate how a combination of biotic and abiotic factors and processes produces a selected ecosystem (e.g., grassland, forest, desert, wetland). – analyse how the distinctive natural features (e.g., climate, watershed, plants, animals) of the local ecosystem interact;		
	Test			