**SNC 1D Biology Unit Test Study Guide**

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| **Day** | **Topic** | **Focus Areas** | **Suggested Textbook Questions** |
| 1 | 2.5 – Food Webs & Ecological Pyramids  | * What is an ecological niche?
* Types of Consumers
* Understand how food chains, food webs, and ecological pyramids work and review the examples from the PowerPoint
* What does the position of the tropic level indicate, and how does it effect the energy pathways?
 | 2.5 – pg.47 #1-8 |
| 2 | 2.6 – Cycling of Matter in Ecosystems  | * Review the worksheets from class on:
	+ Water Cycle
	+ Nitrogen Cycle
	+ Carbon Cycle
 | 2.6 – pg.51 #1-10  |
| 3 | 2.2 – Introducing Ecosystems (Self-Study)2.4 – Energy Flow in Ecosystems (Self-Study) | * *Read and make study notes on these 2 sections, and complete the section questions*
* You should be able to differentiate between biotic and abiotic factors
* What is a sustainable ecosystem?
* Understand the process of photosynthesis and cellular respiration. How are these 2 processes related?
 | 2.2 – pg.35 #1-52.4 – pg.41 #1-7, 9-12  |
| 4 | 2.1 – Life on Planet Earth 2.7 – Biotic & Abiotic Influences on Ecosystems  | * Review the board notes from class on section 2.1
* Define lithosphere, atmosphere, hydrosphere, and biosphere
* Give examples of abiotic and biotic limiting factors
* What are the 5 key types of species interactions and how do they work? (competition, predation, mutualism, parasitism, commensalism)
* What is meant by carrying capacity?
 | 2.1 – pg.31 #1-52.7 – pg.55 #1-7 |
| 5 | 3.3 – The importance of Diversity3.4 – Habitat Loss & Fragmentation 3.5 – The Introduction of Non-Native Species (Self-Study) | * What is meant by the term species richness?
* What are the classifications and meaning of species at risk? (extinct, extirpated, endangered, threatened, special concern)
* What are the factors that improve the sustainability of habitat fragments? (size, number, proximity, connectedness, integrity)
* What human activities are having impacts on wetlands and aquatic ecosystems
* Read and make study notes on this section, and complete the section questions
* What is an invasive species?
* What are the 4 types of impacts and consequences of invasive species? (ecological, economic, tourism, health)
* What are the 3 methods of controlling introduced species and give an example (chemical control, mechanical control, biological control)
 | 3.3 – pg.86 #1-73.4 – pg.90 #1-73.5 – pg.94 #1-7  |
| 6 | 2.8 – Terrestrial Ecosystems 2.9 – Aquatic Ecosystems 3.1 – Services from Natural Ecosystems  | * What is a biome? What are common types of biomes?
* What are Canada’s five terrestrial biomes (mountain forest, tundra, boreal forest, grassland, temperate deciduous forest) and list one abiotic and biotic feature of each
* Compare and contrast terrestrial and aquatic biomes (similarities and differences)
* Describe 3 human activities that threaten terrestrial and aquatic habitats
* Define oligotrophic and eutrophic
* What are benefits/services from Natural ecosystems (cultural, products, environmental, economic, other)
 | 2.8 – pg.59#1-62.9 – pg.62 #1-73.1 – pg.79 #1-5  |
| 7 | 4.4 – Pests & Poisons 4.5 – Issues with Pesticides  | * What are pesticides and what are the 3 different types?
* What are the problems of pesticides in terms of bioaccumulation and bioamplification?
* Provide 2 benefits and risks of pesticides
* What is an alternative method to pesticides and how does it work? (organic farming)
 | 4.4 – pg.134 #1-74.5 – pg.140 #1-8 |
| 8 | 3.6 – Pollution 3.7 – Consumption & Resource Management  | * What are the effects of acid rain, and how can we reduce it?
* What are types of pollution and their effects (heavy metals, pesticides, fertilizers, ocean acidification, oil spills, plastics at sea)
* What is sustainability and how can we manage it.
 | 3.6 – pg.101 #1-63.7 – pg.105 #1-6  |
| 9 | 4.7 – The Urban Ecosystem4.1 – Engineered Ecosystems & Modern Agriculture  | * Compare urban and natural ecosystems in terms of their various features
* As humans, how can we reduce our ecological footprint (our impact on the environment)
* Describe how you use engineered ecosystems
* How are monocultures and agroecosystems related
 | 4.7 – pg.145 #1-74.1 – pg.122 #1-11 |