GES BIOLOGY Term 1 (Sept-Oct, 2019)

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| TOPIC: Energy flow, Ecosystem and the Environment. |

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| Theme: Identify and explain how ecosystem works | Level: A2 |
| Objectives: Understand how the numbers and distribution of organism in a habitat affected by biotic and abiotic factors. | |

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| Focussing Questions | Key Words | |
| **1 Population and the Ecosystem**   * What is meant by the term environment, biotic, abiotic and biosphere? * What is an ecosystem * What is meant by the terms population, community and habitat   **2.Investigating Population**  What factors should be considered when using a  quadrat?  How is a transect used to obtain quantitative data  about changes in communities along a line?  **3. How do global warming works?**  What is the greenhouse effect?  What process produce carbon dioxide?  How do we contribute to the greenhouse effects?  **4. How do we collect data?**  Who collect data?  Is the Earth temperature rising?  What do we use to collect data?  **5. How do we model global warming?**  What are the drawbacks in using computer models?  What are the risk of flooding?  What are the effects on Organisms?  **6. Why do plant need energy and how is the energy**  **produced?**  What are autotroph and heterotroph?  How are complex organic molecules produced?  Why do respiration in plants and animals depend on | Ecology  Abiotic  Biotic  Biospheres  Ecosystem  Population  Niche  Community  Habitat  Microhabitat  Quadrat  Transect  Abundance  Mark capture method  Greenhouse  Carbon dioxide  Methane  Data  Earth  Temperature  Extrapolate  Predictions  Peat bogs  Indicators  Global warming  Computer models  Drawbacks  Dendrochronology  Tropics  Organisms  Species  Distribution  Molecules  Respiration  Photosynthesis  Processes  Light dependent | Explaining words  What if….  Therefore….  The result will be…  There is a ….  How can we…  …evaluate the design…  …actual versus perceived…  …significance of.. |

**Textbook and worksheets**