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   | EcologyAbioticBioticBiospheresEcosystemPopulationNicheCommunityHabitatMicrohabitatQuadratTransectAbundanceMark capture methodGreenhouseCarbon dioxideMethaneDataEarthTemperatureExtrapolatePredictionsPeat bogsIndicatorsGlobal warmingComputer modelsDrawbacksDendrochronologyTropicsOrganismsSpeciesDistributionMoleculesRespirationPhotosynthesisProcessesLight dependent | Explaining wordsWhat if….Therefore….The result will be…There is a ….How can we……evaluate the design……actual versus perceived……significance of.. |

**Textbook and worksheets**