**Life Science**

**Study Guide for Exam 4**

* Review all chapters and powerpoints for this unit
* Know the major groups of organisms that we talked about (bacteria, fungi, protists, plants, animals)
  + What are characteristics of bacteria? What makes Archaeans (include extremophile bacteria) different from Bacteria?
  + Eukaryotes
    - What are protists? Remember algae are protists that photosynthesize, protozoans are heterotrophic protists
    - What are the characteristics of fungi?
    - What are the characteristics of plants?
    - What are the characteristics of animals?
* What are the 3 Domains of Life? Remember that sequencing the ribosomal RNA in all 3 domains give indication that the archeans are more closely related to Eukarya than to Bacteria.
* What is the order of classification in the Kingdom system? (Kingdom, Phylum, Class……..)
* What is bioprospecting?
* How do prokaryotes differ from eukaryotes?
* How do fungi obtain nutrients?
* What group of organisms went through a large increase in diversity during the Cambrian explosion?
* Is a virus acellular? What makes a virus “not alive?”
* What are autotrophs? What are heterotrophs?
* What is the 6th mass extinction? What is causing it?
* What is an estuary?
* What is habitat destruction?
* What is biodiversity?
* What is competitive exclusion? Review example with chicken
* What is a primary producer? Primary consumer? Secondary consumer?
* How much energy makes it from one level of the food pyramid to the next?
* What is eutrophication?
* Review info on IRL
  + What sections make up the IRL?
  + What is the average depth of the IRL?
  + What are the 3 man-made inlets in the lagoon?
  + What are spoil islands?
  + What are the type of lagoons? Which one is the IRL?
  + Remember that the lagoon has well mixed salinity due to wind and tide
  + What are the 3 types of mangroves?
  + Why are seagrass beds important?
  + How tall can segrasses become?
* Salt marshes – what percentage was drained for mosquito control?
* What is the KOE?
* What is a native plant? Non-native? Invasive species? Be familiar with the invasive species we reviewed