MCB 2010 Exam 1 Study Guide

* Review all PowerPoints
* Who are Jenner, Pasteur, Leeuwenhoek, Lister, Flemming, Koch?
* Be familiar with parts of the microscope; what is resolution? What is magnification? Review the types of microscopy we discussed; remember that darkfield and phase contrast allow organisms to remain alive
* Know the difference between prokaryotes and eukaryotes
* What are algae? Protozoans?
* What is lipid A? what is LPS?
* What are Koch’s postulates?
* Peptidoglycan is made of what 2 polymers?
* What is simple stain? Differential? Special? Remember that the specimen has to be heat fixed to the slide before staining (therefore the specimen is killed)
  + - Know the steps of a Gram stain
    - What are the steps of an acid fast stain? (what group is acid-fast positive?)
* The correct way to write a scientific name is *Genus species*
* What are glycocalyxes? What are biofilms?
* What are endospores?
* What are frimbriae?
* What are the 3 domains of life?
* What are inclusions?
* What protein is found in flagella?
* What are pili?
* What makes Archaeans different from Bacteria?
* Remember that Carl Woese proposed that Archaeans are more closely related to Eukaryans than Bacteria based on their ribosomal RNA