Prokaryotes Test Outline (Life Sciences 11)

SUMMARY:

1. What are prokaryotes? What are characteristics of a prokaryotic cell? What are characteristics of a prokaryotic organism?
2. What are some characteristics of Bacteria? Archaea? What are some key similarities? What are some differences?
3. What is gram staining? How do you interpret a gram stain? How can the results of a gram stain be helpful in diagnosing disease?
4. How do bacteria reproduce asexually? Sexually?
5. What do bacteria look like? How do they move around?
6. What are some different ways in which bacteria can obtain energy/nutrients?
7. In what ways are bacteria helpful and harmful to us? Give specific examples.

STRUCTURE OF TEST:

100% multiple choice, most likely approximately 30 questions

Focus on learning key vocabulary so that you can recognize answers quickly

There are quite a few examples of bacteria listed throughout the powerpoint...focus on the ones that are listed below in the Vocabulary list. You will not be tested on others.

VOCABULARY:

(Disclaimer: This is not meant to be an exhaustive list. Vocabulary words may appear on the test that are not in this list.)

- Prokaryote
- Cell
- Unicellular
- Nucleus, cell wall, cell membrane
- Bacteria
- Cocci
- Bacilli
- Spirilla
- Gram-staining
    - Gram-positive
    - Gram-negative
    - Peptidoglycan
- DNA
- Plasmids
- Binary fission
- Sexual Reproduction
    - Conjugation
    - Transformation
    - Transduction

- Flagella (singular: flagellum)
- Phototroph
- Chemotroph
- Nitrogen fixation
- Antibiotics
- Bacteria examples you should know:
    - Cyanobacteria
    - *Ideonella sakaiensis*
    - *Rhizobium*
    - *E. coli*
    - *Salmonella*
    - *Staphylococcus*
    - MRSA
- Archaea
    - Methanogen
    - Halophile
    - Thermophile

PRIMARY STUDY MATERIAL:

- Microbiology Powerpoint (Viruses, Prokarya, Archaea) **after** viruses
- In-class notes
- Optional: bacteria articles posted on powerpoint
- Optional: Textbook chapter 17 (note: uses some different terminology and is a bit outdated. If something is in the textbook that is not in the powerpoint, it is not testable.)