**Chap 27: Bacteria and Archaea**

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Know the basic structure of bacteria and archaea.

Know the basic name of the shapes of prokaryotes.

What is peptidoglycan?

How is peptidoglycan associated with the gram straining for classifying Eubacteria?

What is the difference between gram positive and gram negative?

What is the purpose of capsules, fimbriae, and pili?

What is taxis?

Be able to explain how simple prokaryotes can use limited genes/proteins for many functions.

Be able to tie in restriction enzymes and plasmids to recombination and transformation.

What is the purpose of an endospore?

How is transformation different than transduction?

How is conjugation like sexual reproduction?

What is an F plasmid? How are they different than R plasmids?

How are bacteria important for the environment? (Be able to explain the use in nitrogen cycle and decomposition)