**AP Biology Cell Structure vs. Function**

**Read each scientific claim below. Use the resources available to find evidence about mitochondria and chloroplasts to support each claim. Evidence could include: statements from the article, labeled diagrams or defined vocabulary terms.**

Resources:  
Prokaryotes: [<http://biology4kids.com/files/micro_prokaryote.html>l](http://www.biology4kids.com/files/cell_mito.html)  
Eukaryotes: <http://biology4kids.com/files/micro_eukaryote.html>  
Bacteria: <http://biology4kids.com/files/micro_bacteria.html>

Claim #1

Eukaryotes are a much more advanced type of cell than prokaryotes

Eukaryotes

Prokaryotes

Claim #2

Mitochondria: <http://biology4kids.com/files/cell_mito.html>  
Chloroplast: <http://biology4kids.com/files/cell_chloroplast.html>

Since bacteria lack membrane-bound organelles, they must use their cell membrane to carry out metabolic processes.

Claim #3

Cell membrane: <http://biology4kids.com/files/cell_membrane.html>

The structure of the cell membrane makes it well suited for enzyme reactions, cell-to-cell recognition, and signal reception, as well as transport.

Structures within the Membrane

Function

Claim #4 YOU CREATE!

Write a claim about the location and number of ribosomes within a cell that produces digestive enzymes to be used in the stomach (i.e.-outside of the cell) vs one that brings food in to be digested. Use the resources, your knowledge and cell diagrams to identify evidence to support your claim.

Resources:   
Ribosomes: <http://www.biology4kids.com/files/cell_ribos.html>  
ER: <http://biology4kids.com/files/cell_er.html>  
Golgi: <http://biology4kids.com/files/cell_golgi.html>