

Unit  
1Handout  
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## Lesson 7: Bacteria Cell Diagram.

**Purpose:** To review cell parts and identify them in a bacterial cell drawing.

**Instructions.** Use the reading packet to help you complete this sheet. The reading packet is online at: <http://micro.magnet.fsu.edu/cells/bacteriacell.html>

### Inside bacterial cells

All bacterial cells are unicellular prokaryotes. They are usually 1/10 - 1/1000 the size of eukaryotic cells. Like all cells (eukaryotes), bacterial cells have a cell or plasma membrane, ribosomes, and genetic material (chromosomes). However, they lack any membrane-bound organelles. Their DNA (genetic material) is formed in a shape of a \_\_\_\_\_. However, it may be twisted or folded over. But, both ends are connected together forming a loop. The area where the DNA is found is called the \_\_\_\_\_, meaning *like a nucleus*. Note: this is not a part, it is just an area (like saying "inside"). Color this gray. Additionally, you may find a much smaller loop of DNA called a plasmid. It is separate from the DNA and the nucleoid. It contains additional information for the cell not found in the DNA. Find it and color it gray.

In the cell you will find many ribosomes. Just as in eukaryotic cells, the ribosomes produce \_\_\_\_\_ for the cell. Don't color these in as there are too many of them and they are too small to color.

### Around the bacterial cell

Bacterial cells typically have three layers surrounding the cell. The outer layer is called the capsule. It is made of complex \_\_\_\_\_ and it keeps the bacterium from \_\_\_\_\_ out and \_\_\_\_\_ it from being eaten (called: endocytosis, engulfment, or phagocytosis) from larger microorganisms. Find this layer and color it red.

The middle or second layer is the cell wall. Just like plant cells, it is made of a rigid, non-living material and gives the cell its \_\_\_\_\_ and \_\_\_\_\_ it from the environment. Color this yellow. The third or innermost layer is called the cell or plasma membrane. It controls what comes in and out of the cell. Color is orange.

