



Prokaryotes & Eukaryotes

Biology Topic 16

Objectives

From this lesson, you should be able to:

- Recognize two major cell types
- Describe size differences between the two



Overview

Prokaryotes are unicellular organisms that lack organelles or other internal membrane-bound structures.

Prokaryotic cells preceded eukaryotic cells on the evolutionary timeline.

Eukaryotes are organisms whose cells have a nucleus enclosed within membranes.



About Two Organelles

Mitochondria and chloroplasts have striking similarities to bacteria cells.

They have their own DNA, which is separate from the DNA found in the nucleus of the cell. And both organelles use their DNA to produce many proteins and enzymes required for their function.



Size Comparisons



One millimeter (mm) is the small mark on a meter stick.

10^{-3} is one thousand times SMALLER than a millimeter

Each of these are 10 times smaller than the number above it.

