

# DIVERSITY OF LIFE!

## Characteristics of Life:

- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

## Viruses:

- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

## Made of Cells

- \_\_\_\_\_: phospholipid bilayer that regulated passage of materials into and out of the cell
- \_\_\_\_\_: heredity information for next generation and code for making proteins
- \_\_\_\_\_: the site of protein synthesis
- \_\_\_\_\_: fluid portion of the cell with dissolved substances

## EUKARYOTA:

- \_\_\_\_\_
- \_\_\_\_\_

## PROKARYOTES:

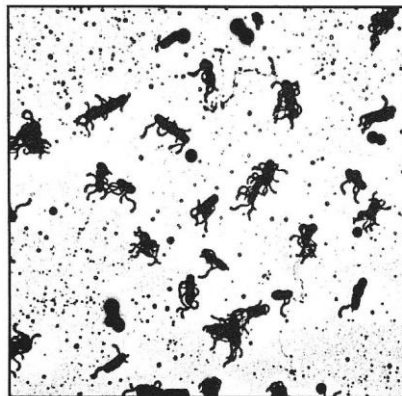
- Lack nuclei and organelles
- Reproduce via binary fission
- Wide variety of metabolism types
- Spirilla, cocci or bacillus

## EUBACTERIA:

- "True bacteria"
- \_\_\_\_\_
- \_\_\_\_\_
- Species diversity: 10,000+

### Gram-Positive Bacteria

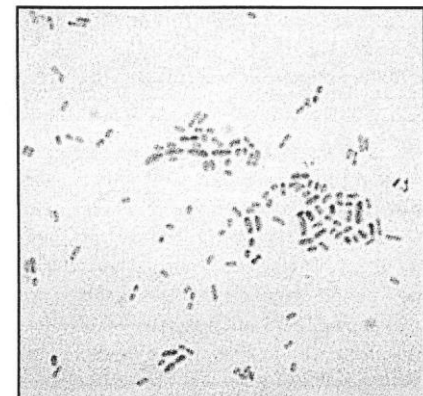
The walls of gram positive bacteria consist of many layers of peptidoglycan forming a thick, single-layered structure that holds the gram stain.



*Bacillus alvei*: a gram positive, flagellated bacterium. Note how the cells appear dark.

### Gram-Negative Bacteria

The cell walls of gram negative bacteria contain only a small proportion of peptidoglycan, so the dark violet stain is not retained by the organisms.



*Alcaligenes odorans*: a gram negative bacterium. Note how the cells appear pale.