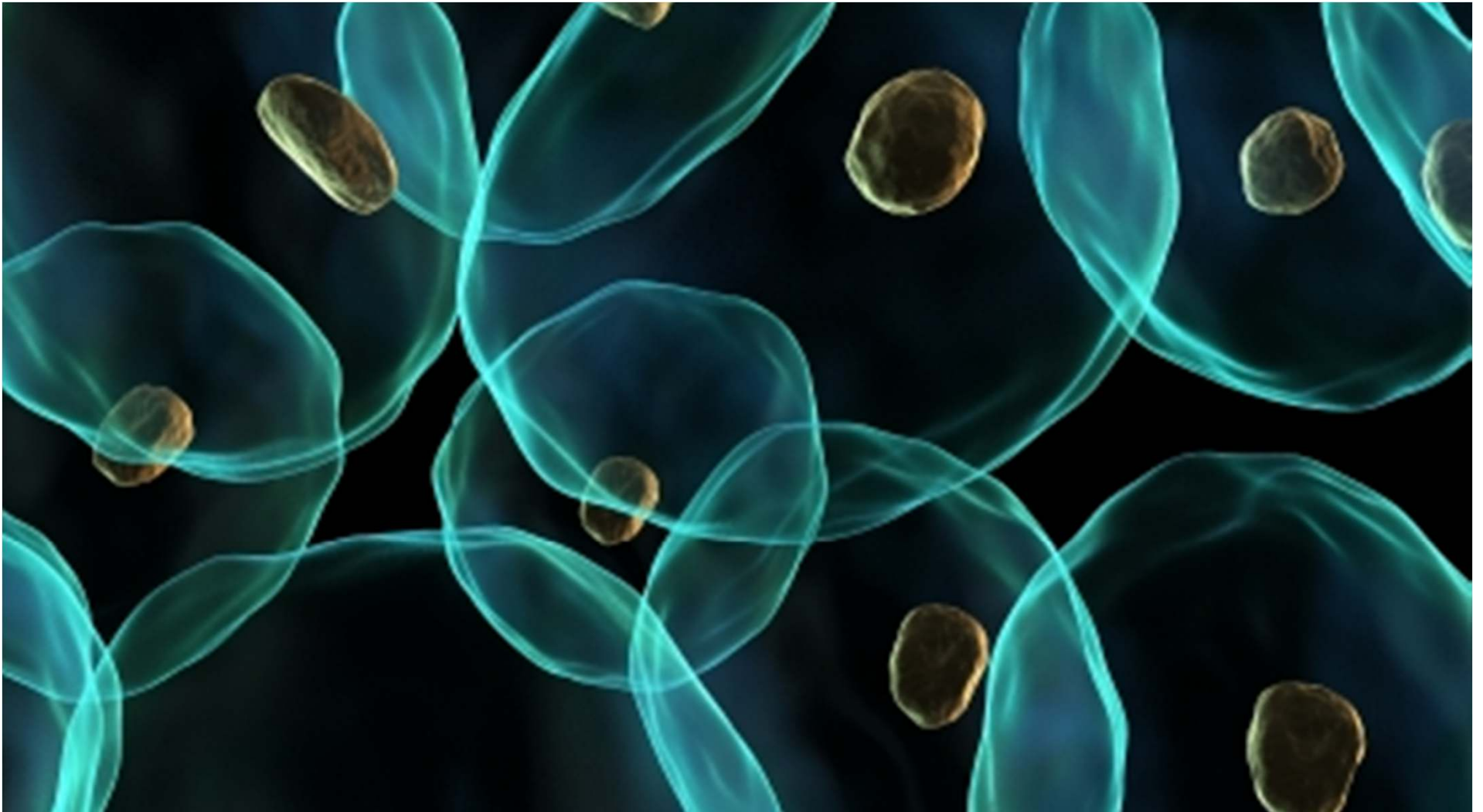


# Pre AP Biology





Characteristics & Hierarchy of Life

8.1

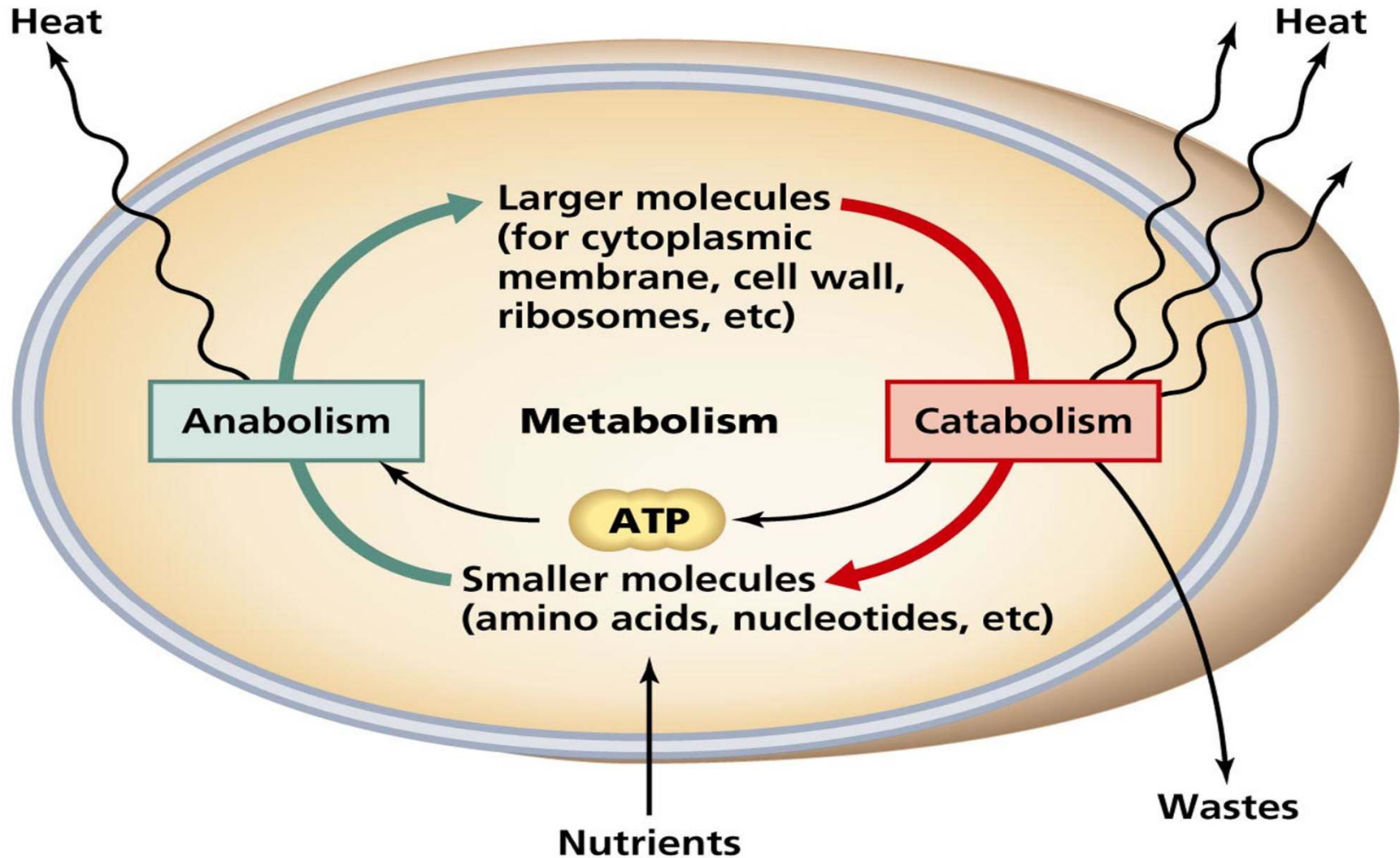
All living things are composed of  
cells



# Living things possess differing levels of complexity

Organism	Individual living thing	 Bison
Groups of Cells	Tissues, organs, and organ systems	 Nervous tissue      Brain      Nervous system
Cells	Smallest functional unit of life	 Nerve cell
Molecules	Groups of atoms; smallest unit of most chemical compounds	 Water      DNA

# Living things use energy in metabolic processes.



# Lining things need to respond to their environment



All living things adapt to their environment.  
Arctic Snow Hare in Summer (left) winter (right)



All living things reproduce.

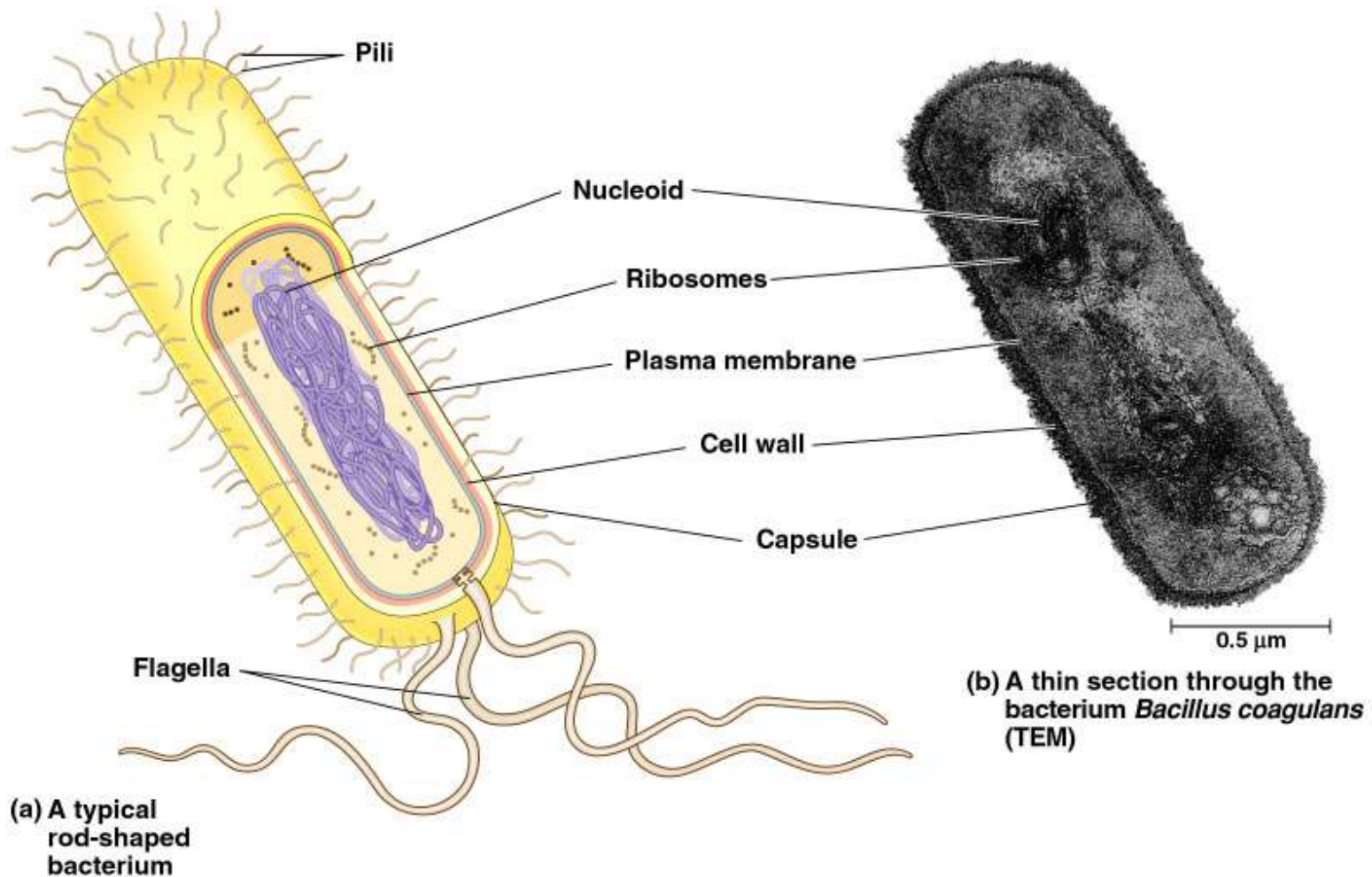


All living things grow and develop.

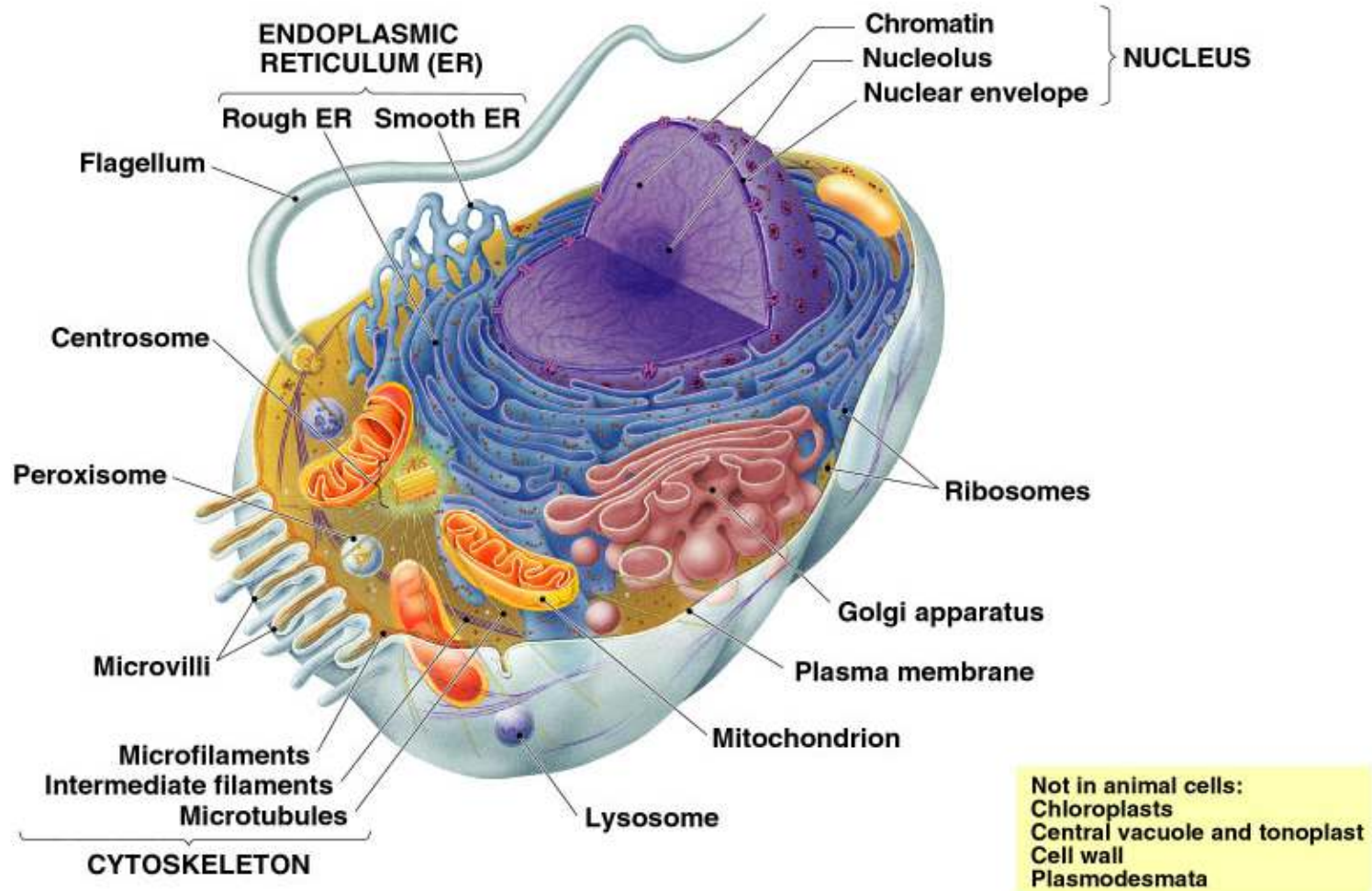




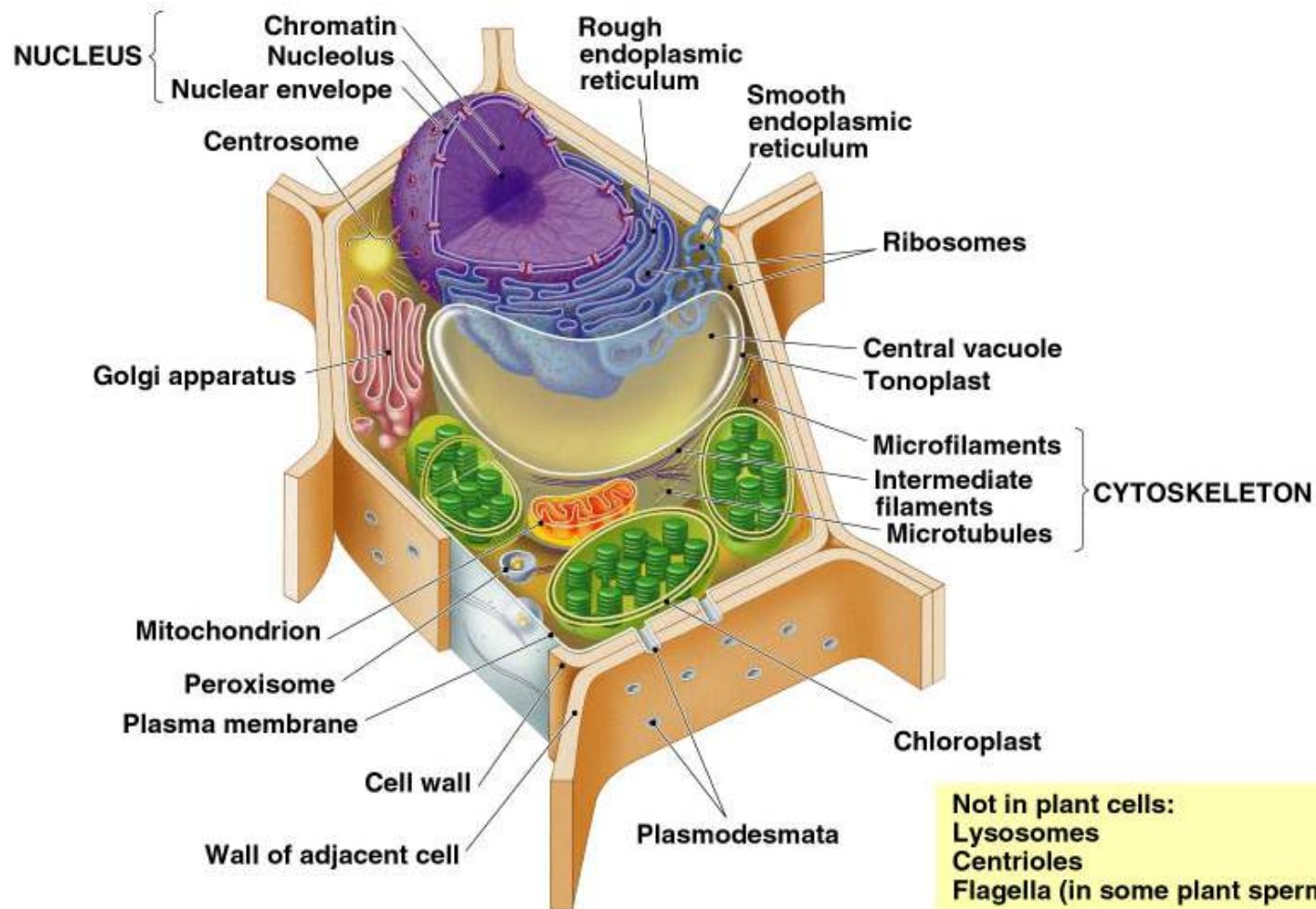
# Prokaryotic Cells



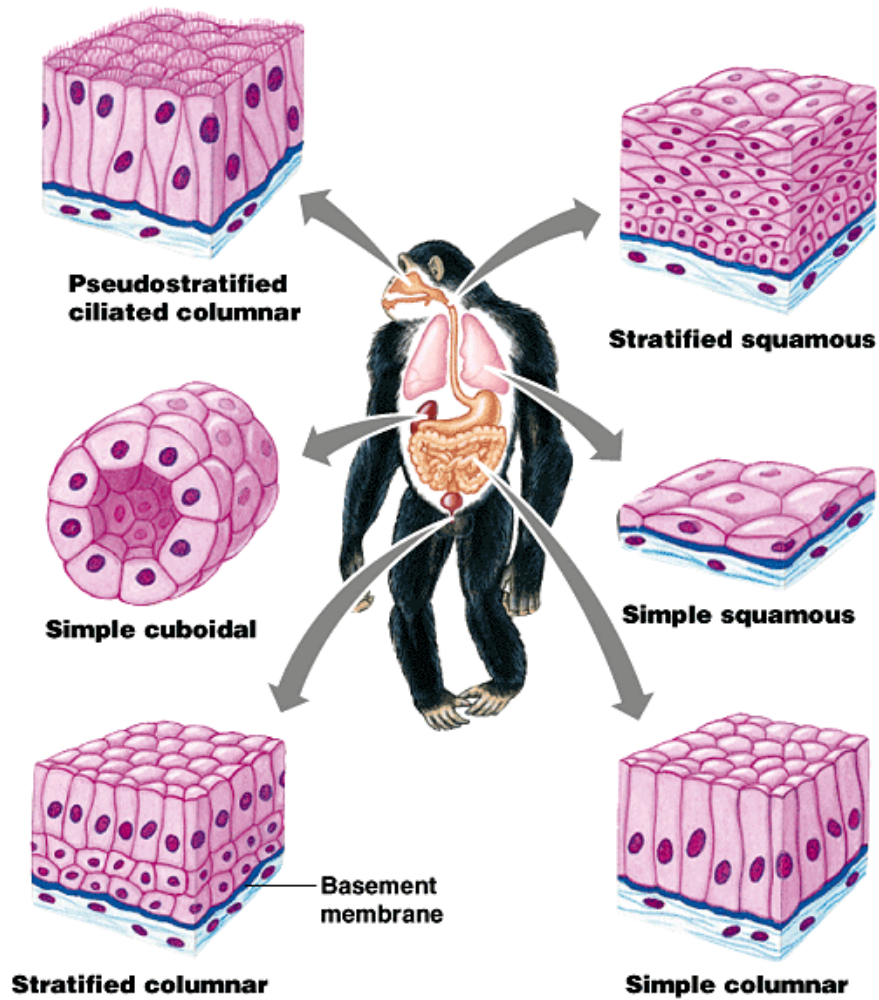
# Eukaryotic Animal Cell



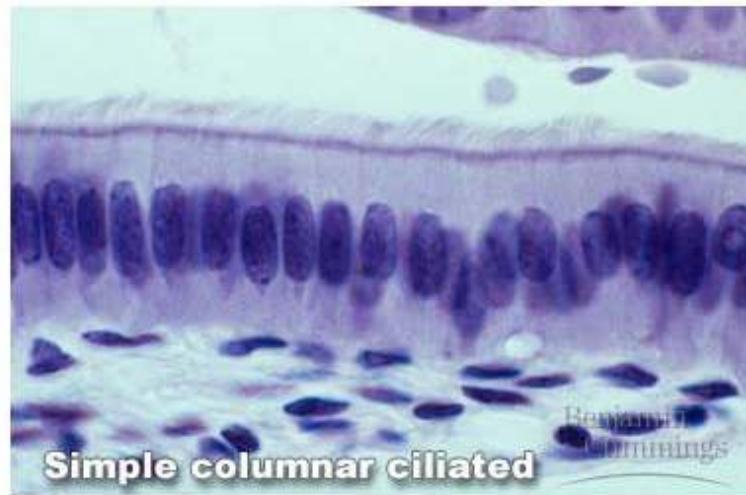
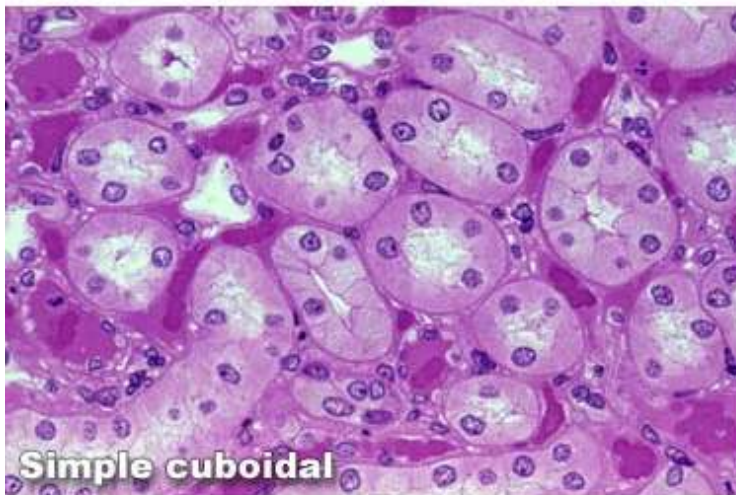
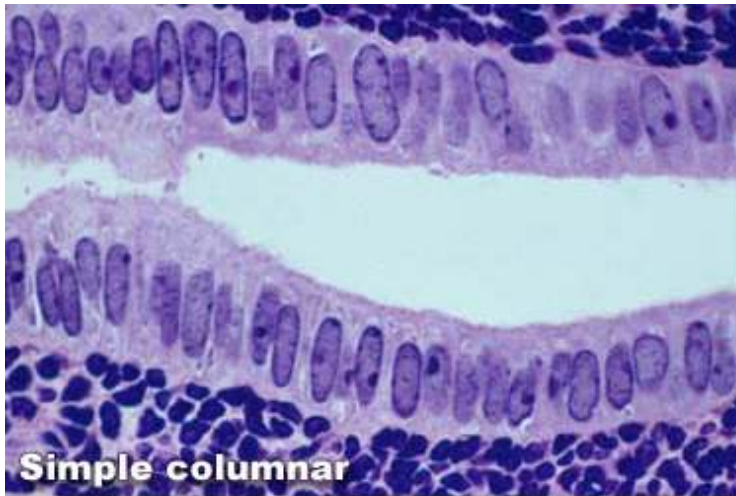
# Eukaryotic Plant Cell



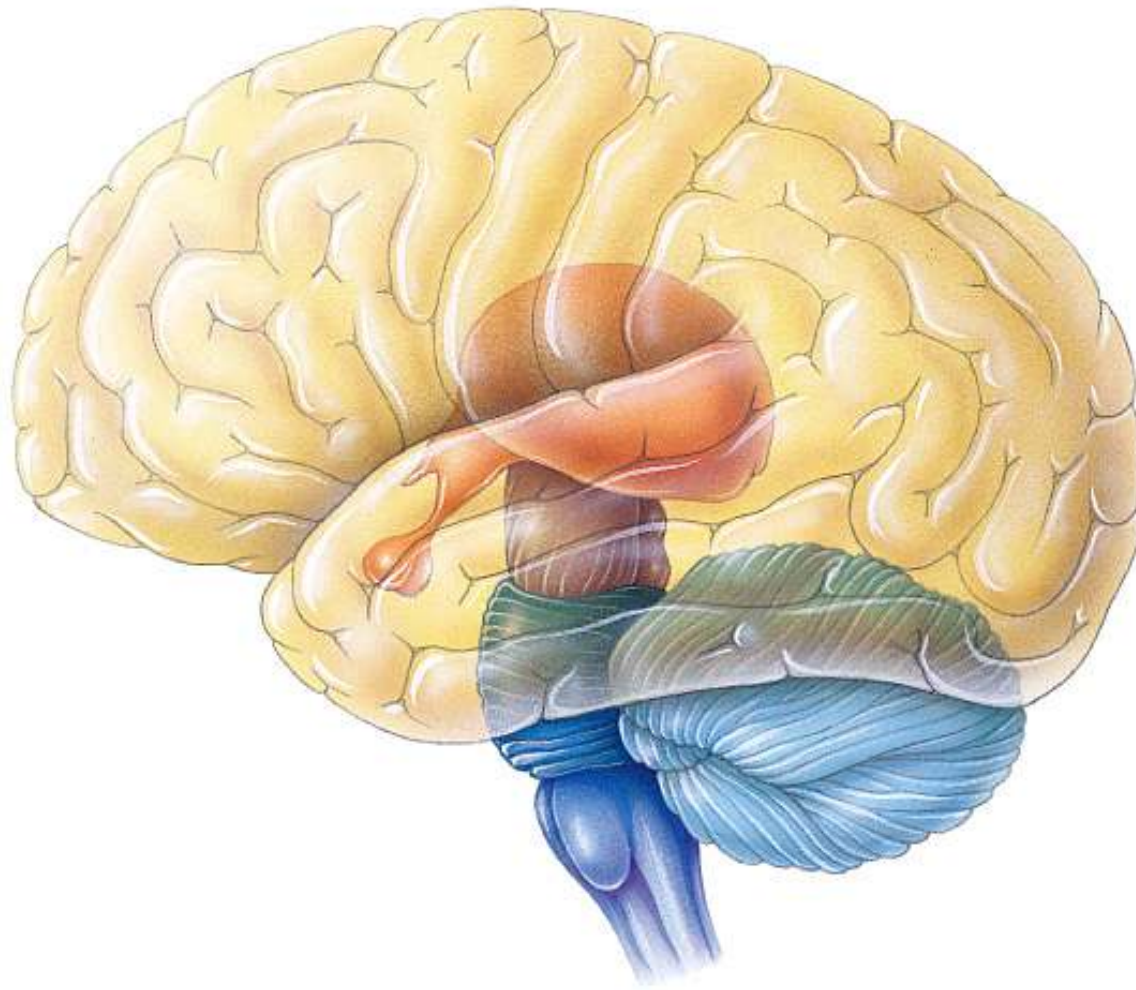
# Tissues



# Tissues (under the microscope)



# Organ (The brain)

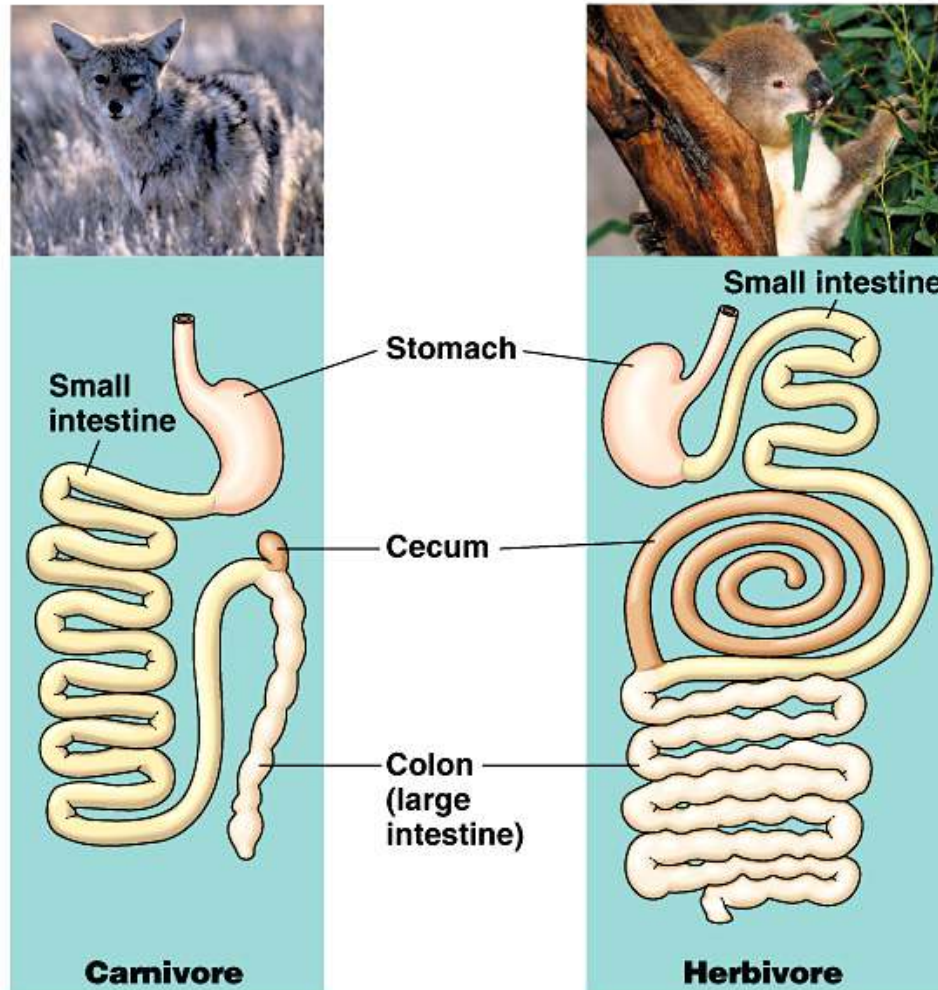


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# Actual Brain

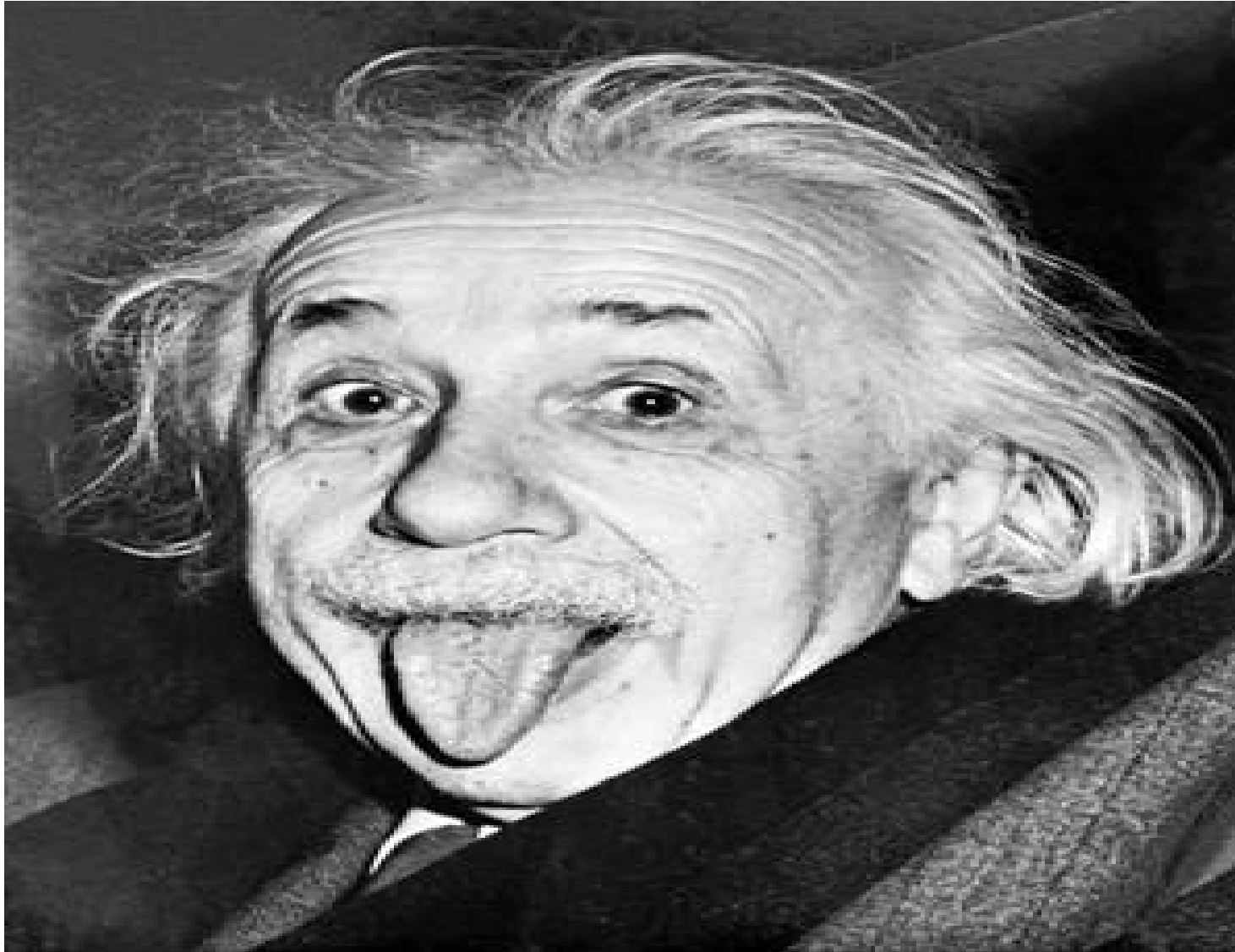


# Organ Systems





# Organism



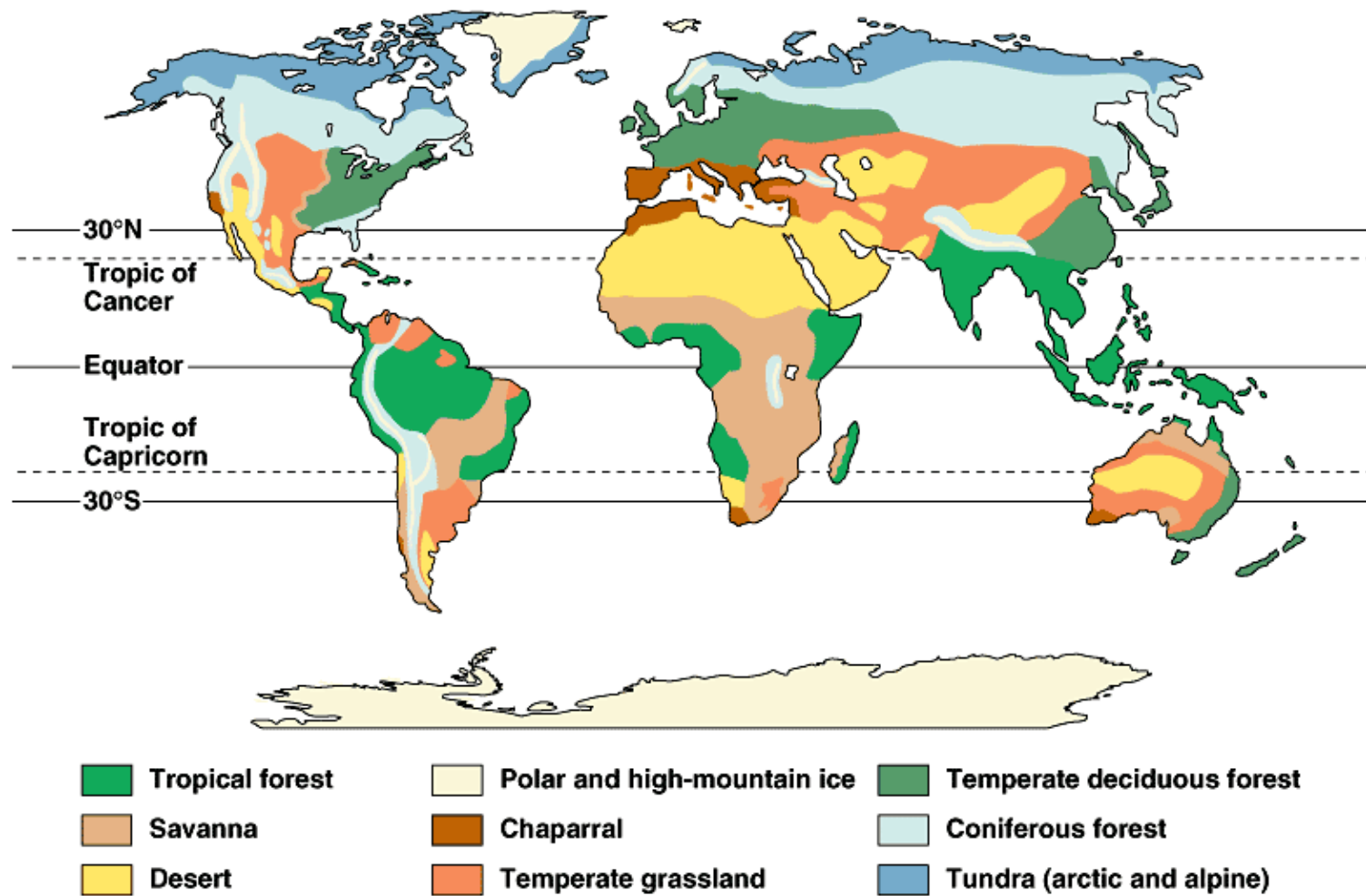
# Population



# Community



# Ecosystem or Biome



# Biosphere



# Carolus Linnaeus (Father of Taxonomy)



Library of Congress

# Binomial Nomenclature

Example: Humans

*Homo sapiens*

*Homo* is the Genus part.

*sapiens* is the Species part.

# Taxonomy of Life

