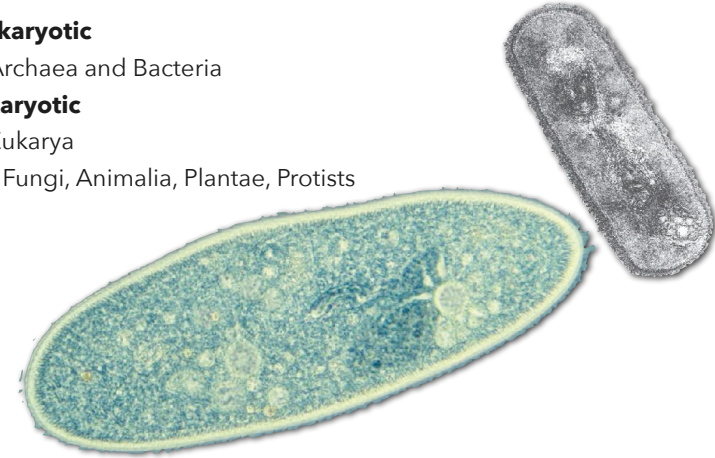


tour of a cell

ch 4

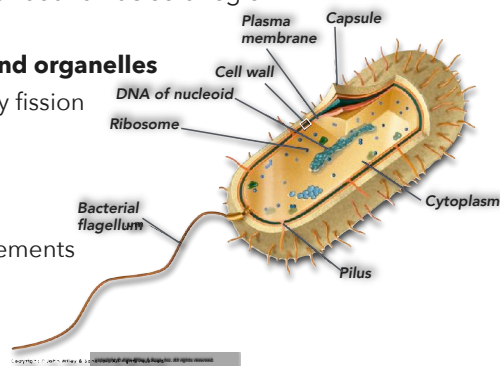
tour of the cell

- **prokaryotic**
 - Archaea and Bacteria
- **eukaryotic**
 - Eukarya
 - Fungi, Animalia, Plantae, Protists

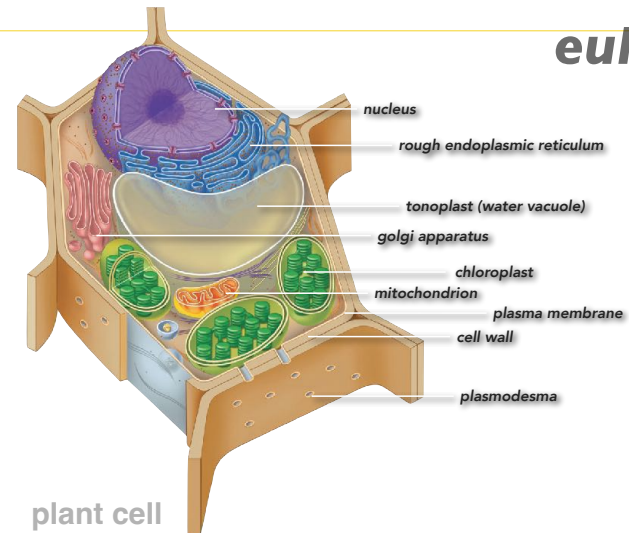


prokaryotic

- **no nucleus**
 - DNA packaged up in unbound nucleoid region
 - single circular DNA
- **no true membrane-bound organelles**
 - reproduction by binary fission
- **cytoplasm**
 - ribosomes
 - no true cytoskeleton
 - some cytoskeletal elements
 - no organelles

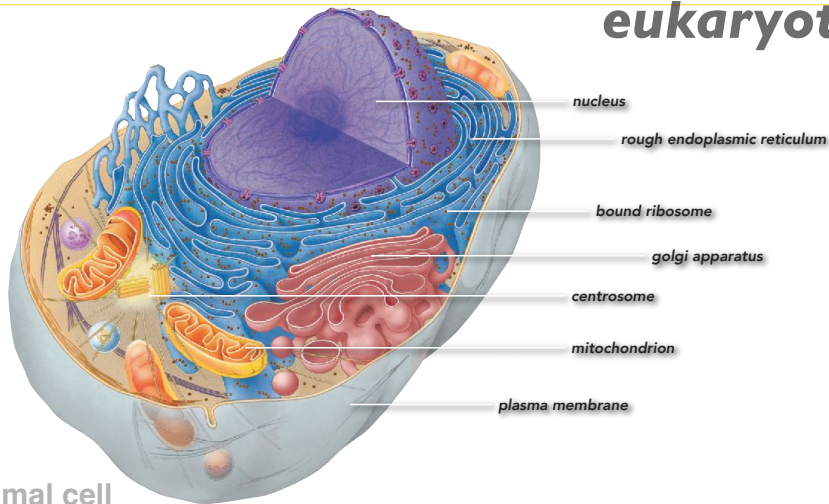


eukaryotic



plant cell

eukaryotic

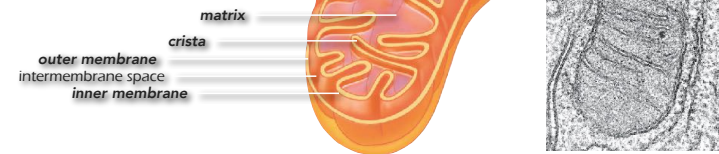


animal cell

mitochondria

• "power house of the cell"

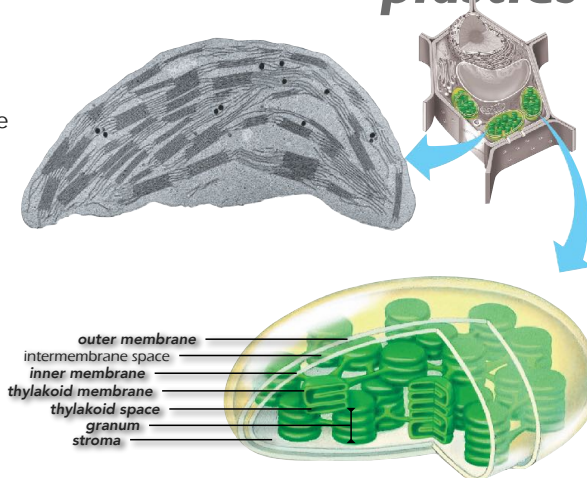
- outer membrane
- intermembrane space
- inner membrane
- cristae
- mitochondrial matrix
- free ribosomes
- respiratory enzymes
- endosymbiont theory



plastids

• chloroplasts

- outer membrane
- intermembrane space
- inner membrane
- stroma
- thylakoid
- grana
- thylakoid space



• cytoskeletal elements

- network of filamentous structures
- microtubules
- intermediate filaments
- microfilaments
- major roles:
 - scaffolding
 - organization of organelles
 - locomotion
 - movement of materials within the cell

cytoskeleton

