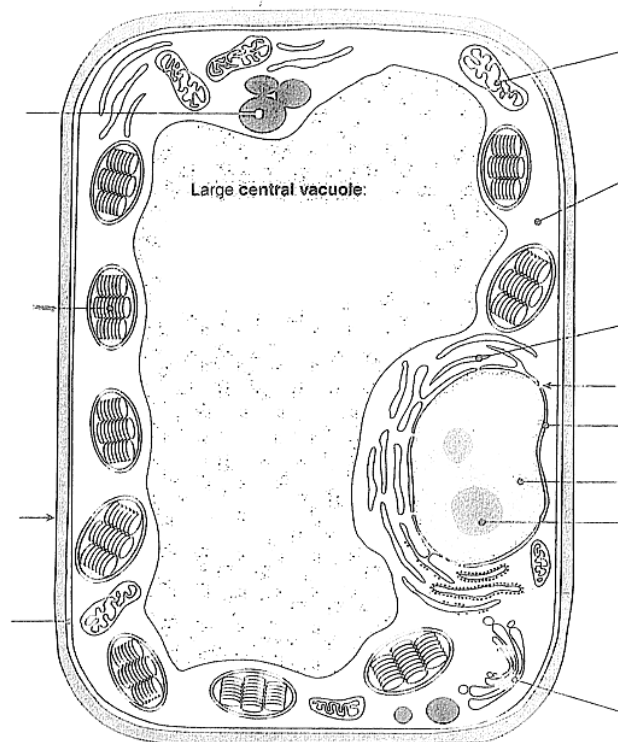


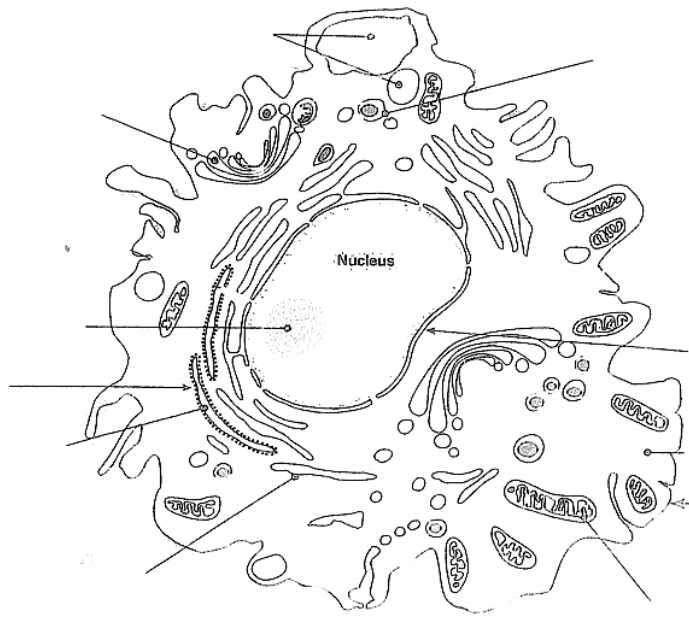
# Stage 1 Biology

## Key Organelles

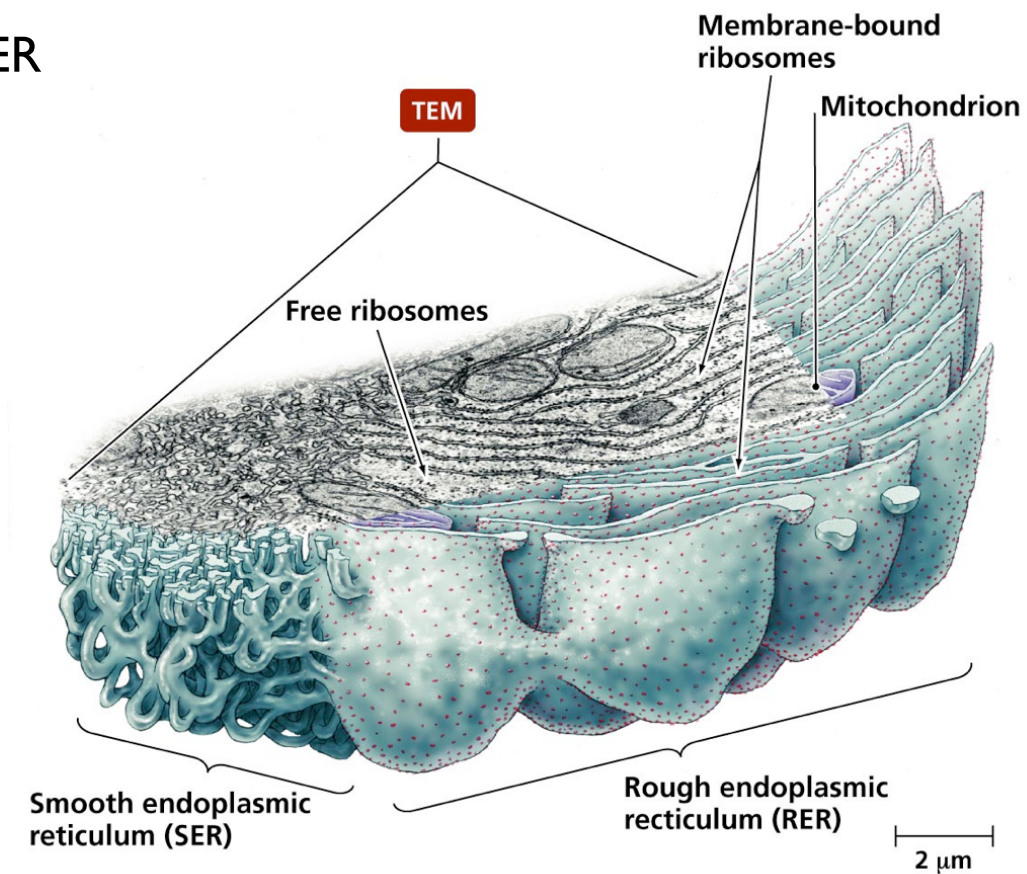
### Plant Cell



# Animal Cell

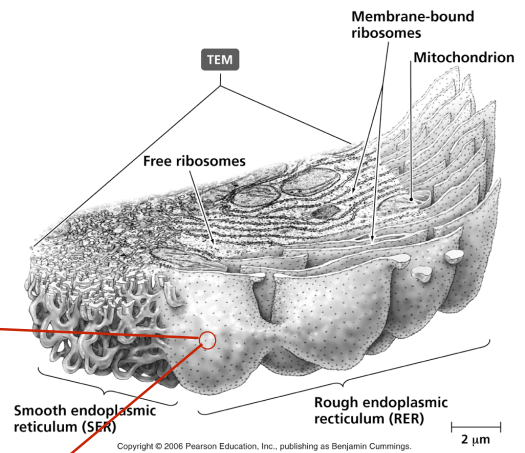
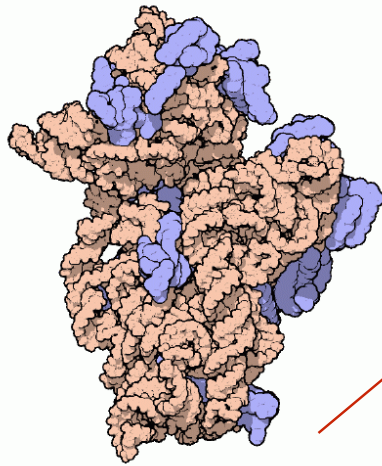


ER



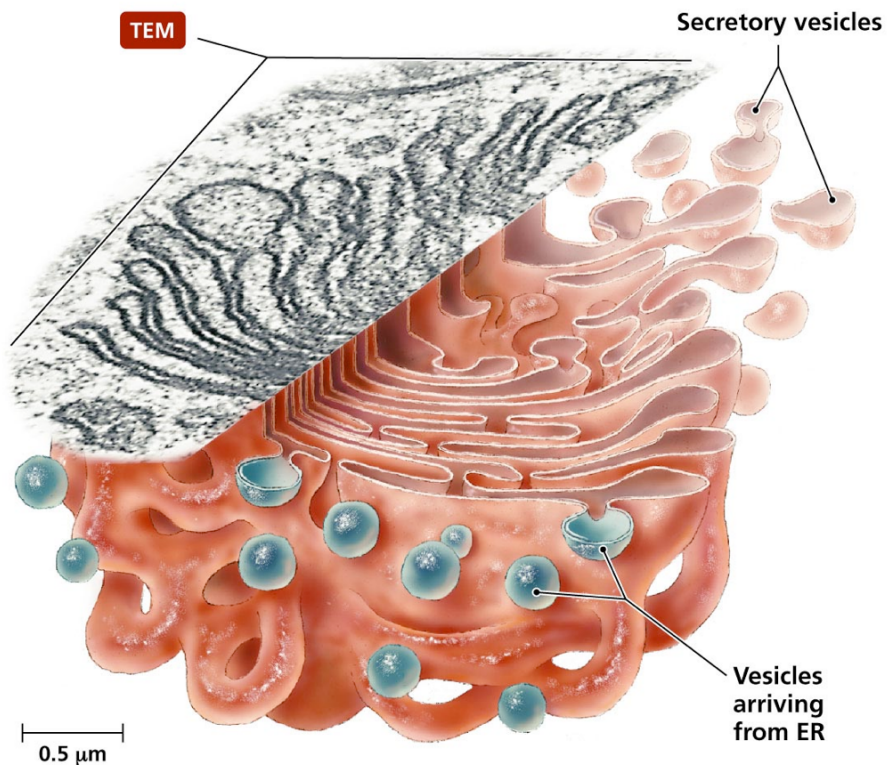
# Ribosome

- \*not a membrane
- \*made of folded RNA



**Site of protein synthesis**

# Golgi Body

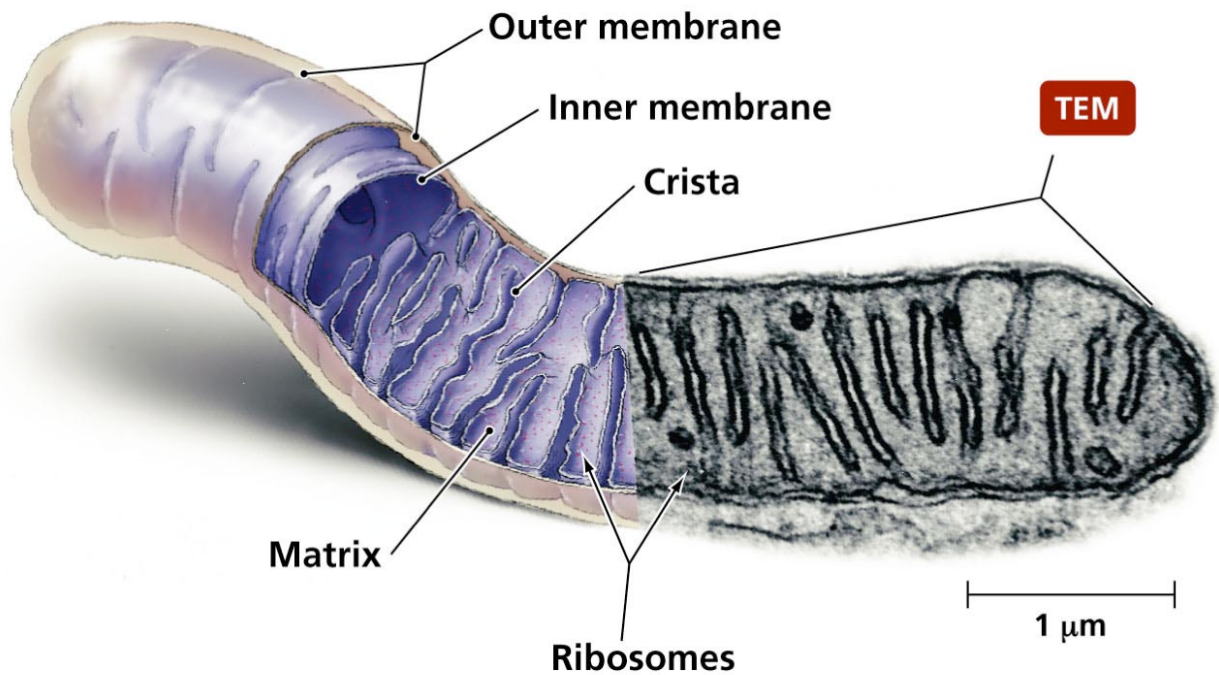


# Mitochondrion

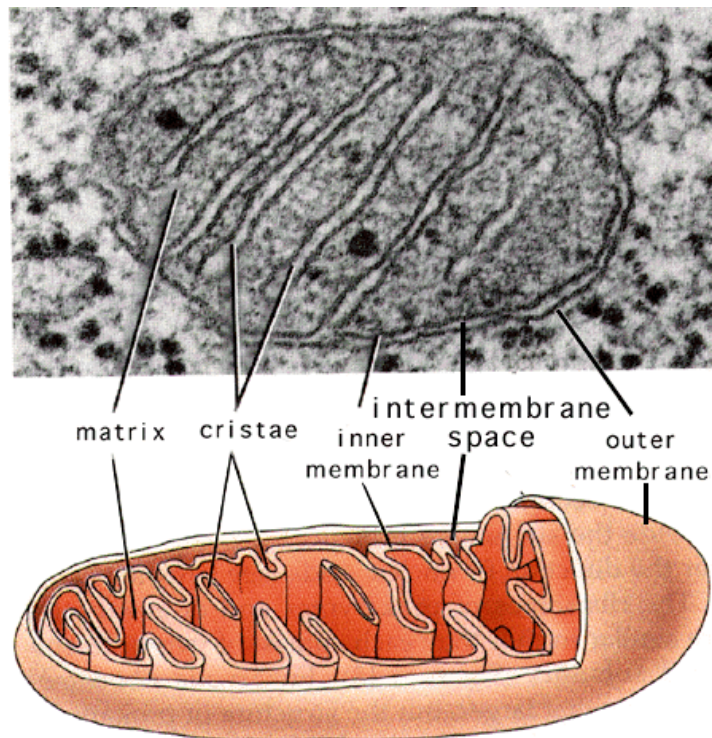
\*site of final oxidation of food - produces ATP as result

\*cristae - increases surface area for membrane-bound organelles that help in energy transfer

\*matrix contain enzymes, some DNA, and some ribosomes



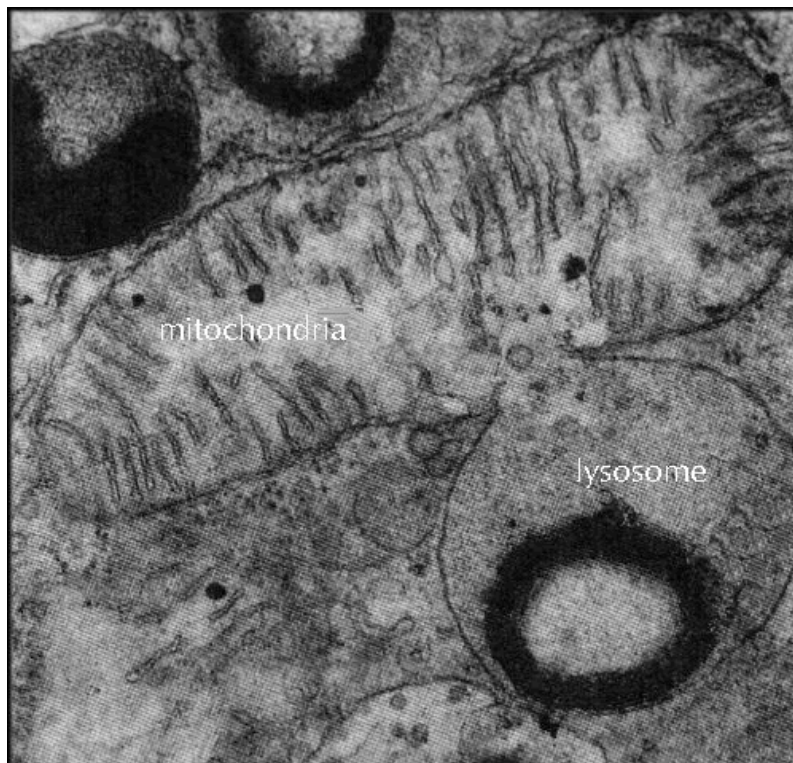
# Mitochondria



## Mitochondria & Rough ER



## Lysosome (destroying defunct mitochondria)

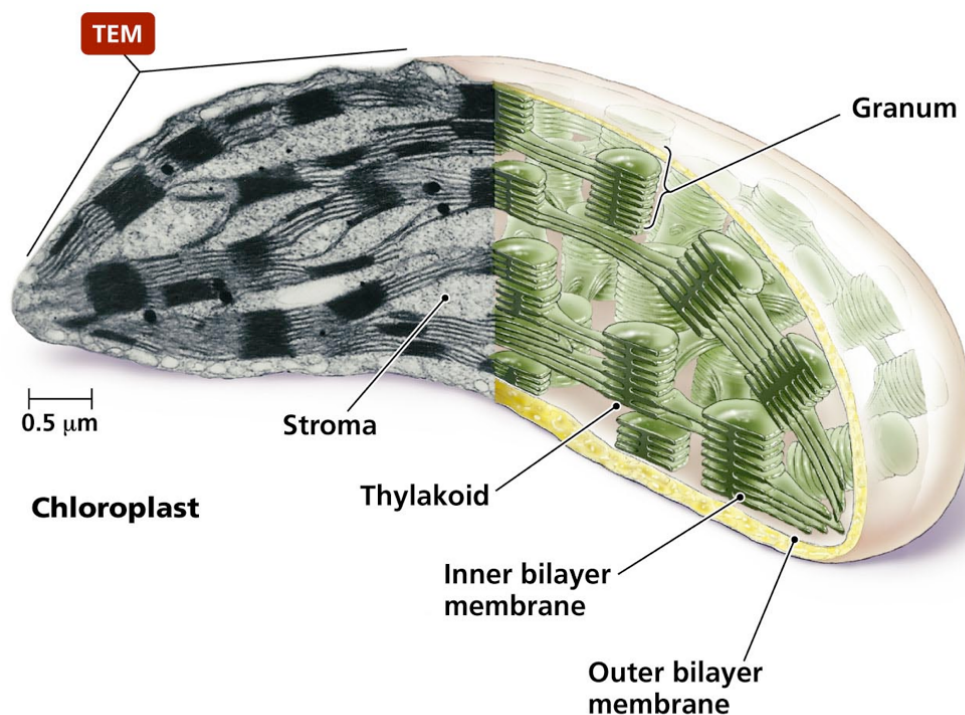


# Video of Lysosomes

<https://www.youtube.com/watch?v=gKVDLbUjxSQ>

## Chloroplast

\*thylakoids stack together to form grana - full of pigments for light reactions in photosynthesis  
\*stroma - like cytoplasm; site of dark reactions where carbs are synthesized for export; storage; use in cell wall.



# Key Summaries

## **Membrane based organelles** (which are not in prokaryotic cells):

- nucleus
- mitochondria
- chloroplast
- Golgi body
- ER (smooth and rough)
- vacuoles and vesicles
- lysosomes

## **Organelles in Prok. and Euk. cells:**

- cell membrane
- cytoplasm
- ribosome
- \*cell wall (in some euk. cells - like plants)