

**CELL BOOKLETS:**

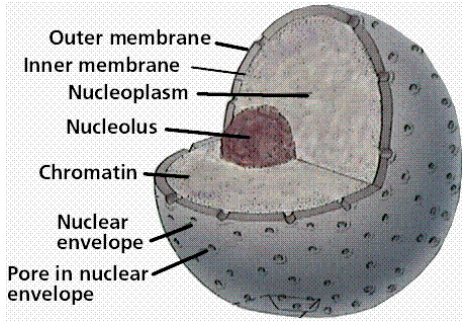
**Instructions for creating the pages—**

Take 4 pieces of white computer type paper. Cut them so that you have 4 slips from each page that measure 8-1/2 x 2 -3/4 inches. You will have 8 slips in each booklet. You will have an extra page in the plant cell booklet once all pictures are glued in. Hold the slips longwise and fold them over. Crease them so that you now have a booklet measuring 4-1/4 x 2- 3/4 inches. You may want to staple the pages to one index card on the back to help give some stability to the booklet.

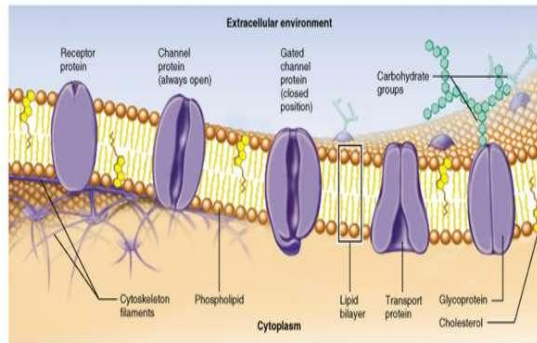
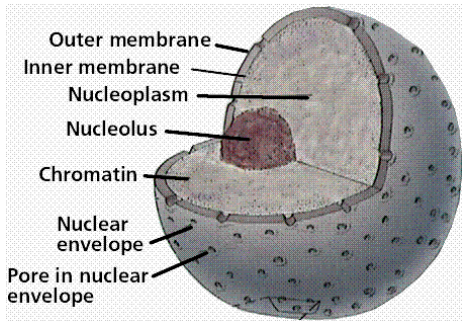
**Instructions for creating the content—**

The first page in each booklet is the cover page. Decorate it with a title and pictures of organisms for that type of cell. The following pictures illustrate structures found in the plant and/or animal cells. Some pictures have more than one structure pictured. Please note the titles included. Print off the pictures and glue them into the correct booklet. If there are two pictures, then each booklet receives one of those pictures. If there is only one picture, then you need to determine which cell booklet to add it to. Glue the pictures onto the right page. The left page is where you write the characteristics/function for the structure(s). Arrange the pictures in your book in a logical order for you.

<b>Structure</b>	<b>Characteristics</b>	<b>Function</b>
Cell membrane	Double layer of phospholipid molecules studded with proteins	Acts as a barrier to cell. Proteins serve many functions including transporting ions and other molecules
Ribosome	Specialized rRNA protein particle that translates mRNA into proteins	Protein synthesis
Vacuole	Small to large sized sac in cell	Storage for items like water, salts, proteins, carbohydrates
Golgi Apparatus	Flattened stacks of membranes	Modifies, sorts, and packages proteins from the ER
Cytoskeleton/microtubule	Protein fibers (actin) in several sizes such as microtubules and microfilaments	Support system that helps cell maintain shape; also helps in cell movement and transport
Peroxisome	Vesicle with phospholipid bilayer membrane	Contains enzymes essential for cell function
Cytoplasm	Gel like substance in the cell, except for in the nucleus	Gives volume to cell & suspends other organelles allows them to function
Lysosome	Vesicle with phospholipid bilayer membrane	Contain digestive enzymes
Mitochondria	Double walled organelle with a central matrix	Produces most of the cell's energy needs as ATP
DNA/Chromosome	Double helix structure that winds and packs tightly into a chromosome	Stores and transfers genetic information from parent cell to offspring/daughter cells
Cell wall	Composed of cellulose, pectin, other materials; rigid and waterproof	Supporting layer around plant, algae, and some bacteria cells; layer outside the membrane
Centriole/centrosome	Bundle of microtubules	Important to cell division
Flagella Cilia	Long, slender, whip-like extension; Small hair-like extensions	Mainly for movement; Some are for motion and some are sensory
Chloroplast	Organelle with stacks of thylakoid membranes and stroma fluid where reactions take place	Captures the energy in sunlight and converts it to chemical energy
Secretory Vesicle	Vesicle with phospholipid bilayer membrane	Store enzymes for secretion to the cell's exterior
Chlorophyll	Pigments in photosynthetic organisms; comes in many colors, labeled a, b, etc	Responsible for capturing sunlight's energy
Endoplasmic reticulum (rough and smooth)	Phospholipid bilayer; rough has ribosomes attached, smooth does not	Rough ER modifies proteins; smooth ER makes fatty acids, steroids, lipids
*Nucleus (*put these on same page)	Bilayer outer membrane,encloses cell's DNA, has pores	Directs ALL functions of the cell, pores allow materials to go in and out
*Nucleolus	Dense area in the nucleus	Proteins & RNA for making ribosomes

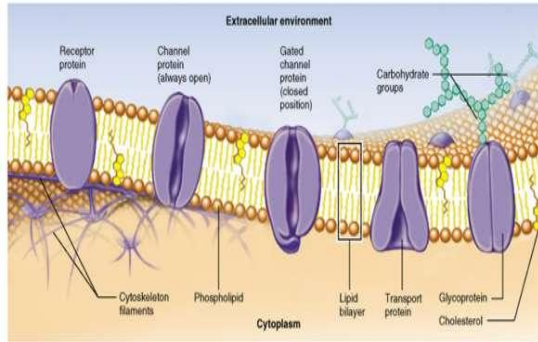


NUCLEUS/NUCLEOLUS

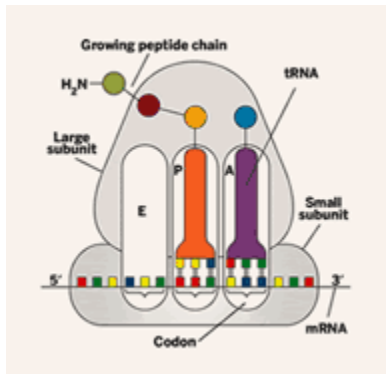


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CELL MEMBRANE



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RIBOSOME

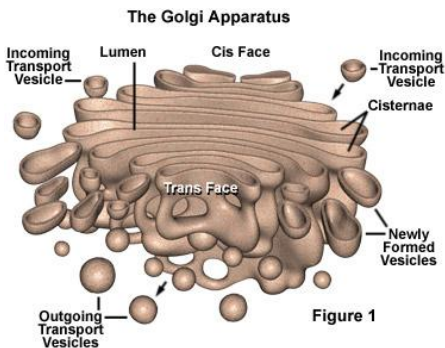
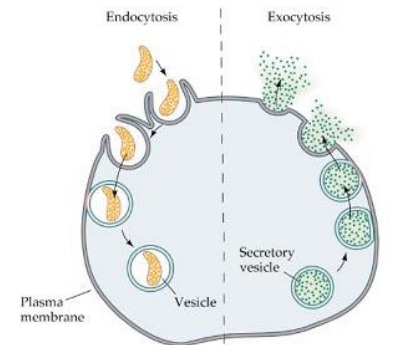


Figure 1

GOLGI APPARATUS (body)



revisionworld

VESICLE

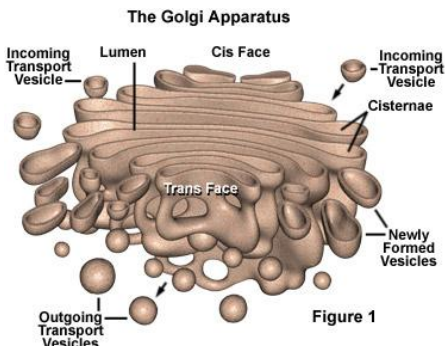
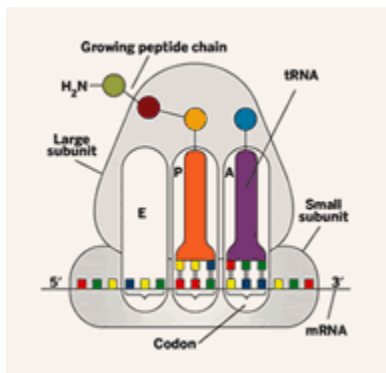
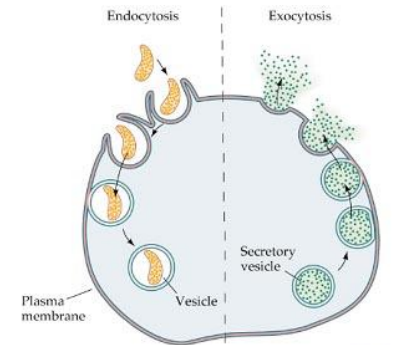
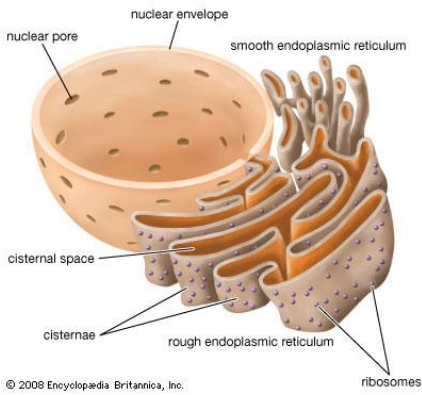


Figure 1



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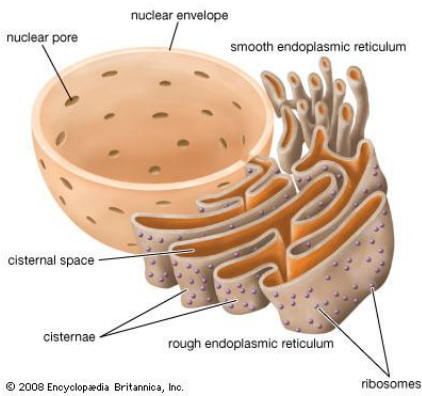
**Endoplasmic reticulum**



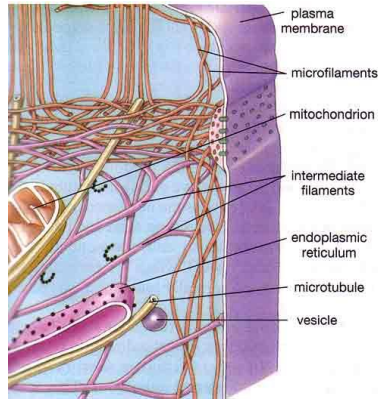
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**ENDOPLASMIC RETICULUM**

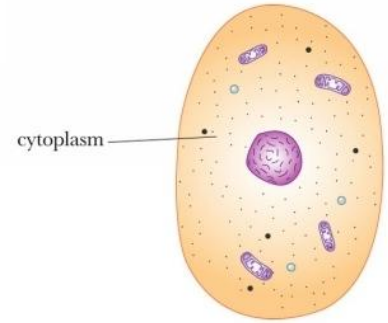
**Endoplasmic reticulum**



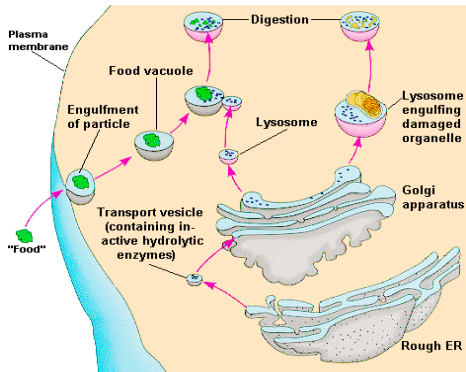
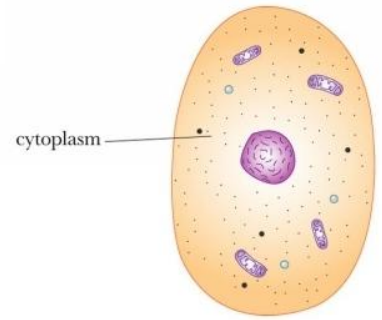
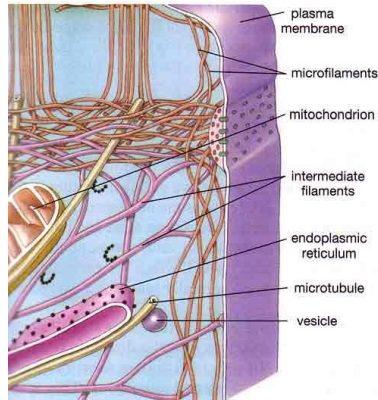
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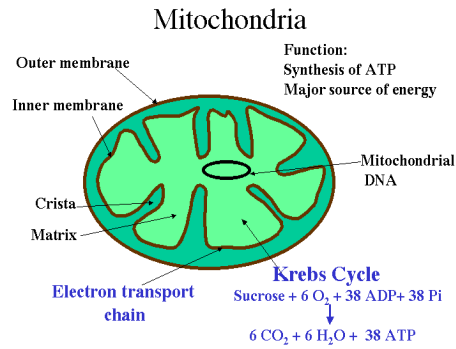
**CYTOSKELETON/MICROTUBULE**



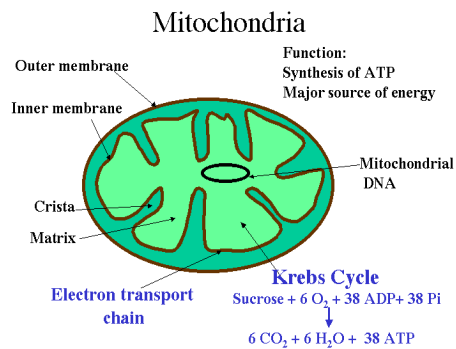
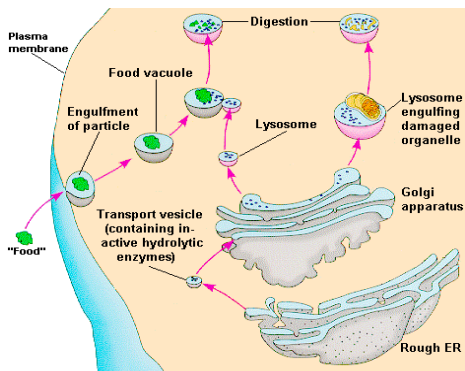
**CYTOPLASM**

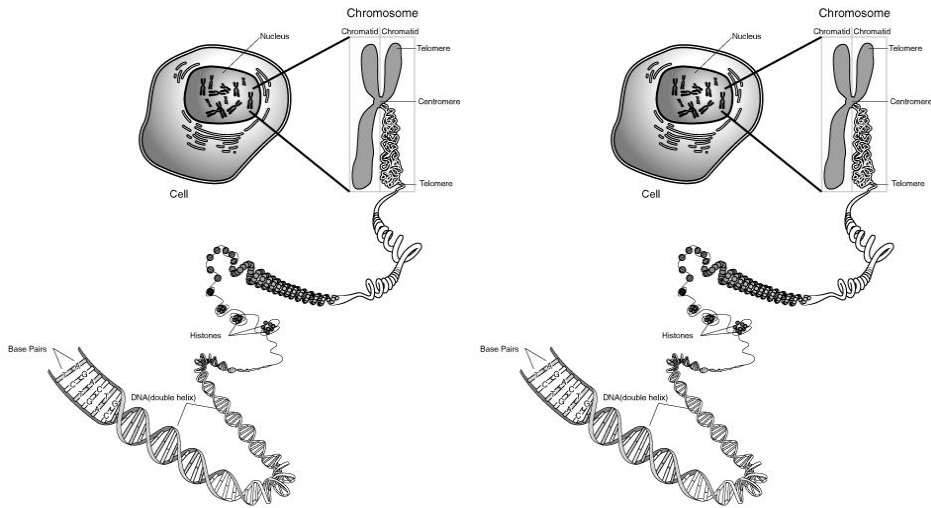


**LYSOSOME**

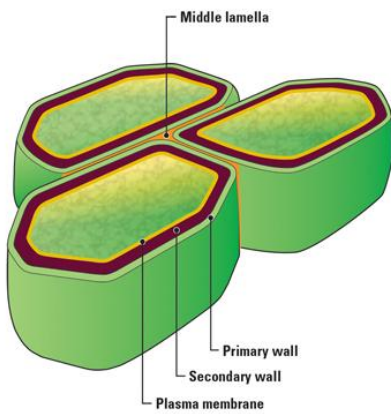


**MITOCHONDRIA**

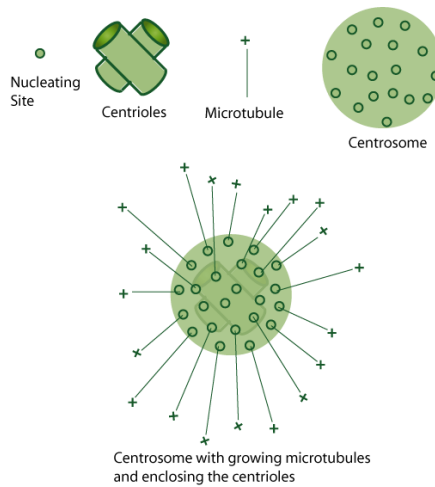




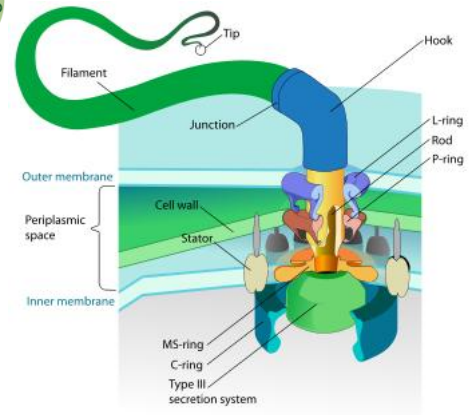
DNA/CHROMOSOME



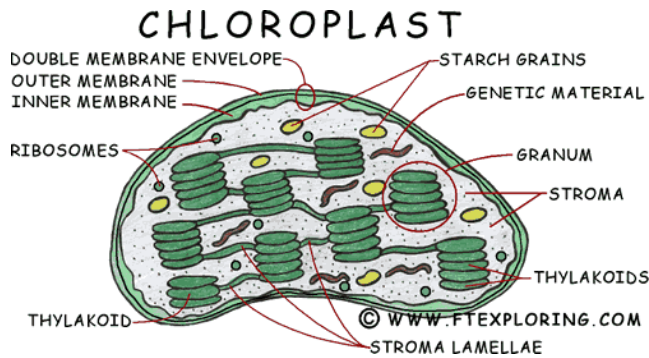
CELL WALL



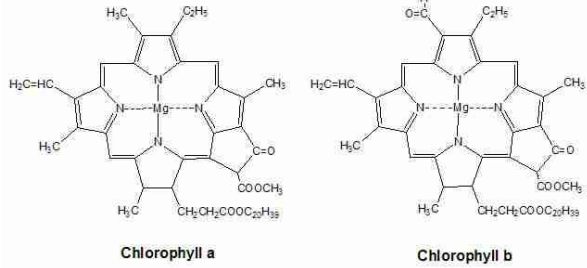
CENTRIOLE/CENTROSOME



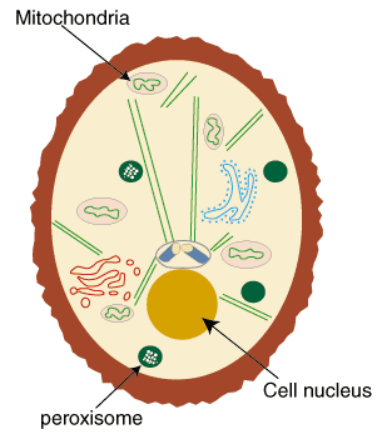
FLAGELLA/CILIA



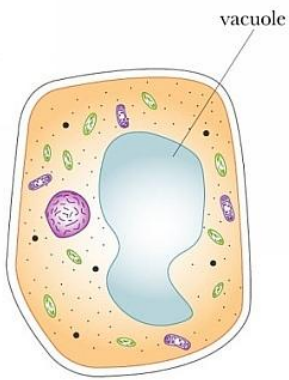
CHLOROPLAST



CHLOROPHYLL



PEROXISOME



VACUOLE