

- **Mitochondria:** Aerobic respiration takes place here; this is where energy is provided from. Energy is ATP which is formed when glucose breaks down. **Mitochondria is the source of the ATP.** It is visible by the light microscope but not clear enough.
- **Ribosomes:** This is where protein synthesis happens. This is where proteins are made. Ribosomes are only visible by the electron microscope.

Plant Cell:

Some of the content is like the animal cell but there are some additional subcellular components.



- **Cell Wall:** provides strength, rigid structure, and support to the plant cells. It is made from cellulose.
- **Permanent Vacuole:** it contains cell sap. Sap is sugar and salt solution. Supplies support and maintains the rigid structure.
- **Chloroplasts:** Photosynthesis takes place here. Chloroplasts contain a green pigment called Chlorophyll which absorbs the light required for photosynthesis.
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- **Ribosomes:** This is where protein synthesis happens. This is where proteins are made. Ribosomes are only visible by the electron microscope.
- **Cell Membrane:** controls the passage of things going into and out of the cell. It acts as a barrier and holds the cells together. It also contains receptor molecules.