

## Notes to Learn Organelles: Anatomy & Physiology

Organelle	Description	Function	Animal, Plant or Both
CELL WALL	Rigid, tough, made of cellulose	Protects and supports the cell	Plant
CELL MEMBRANE	Thin, covering, protects cells	Protects the cell, performs active transport and passive transport, moves materials in and out of the cell, communication	Both
CYTOPLASM	Jelly like substance that contains organelles	Pads and supports organelles inside the cell. Moves by cyclosis	Both
NUCLEUS	Dense, ball shaped structure, contains DNA	Controls all of the cell's activities	Both
NUCLEAR MEMBRANE	Thin covering over the nucleus	Covers and protects the nucleus	Both
NUCLEOLUS	Small dark area in the nucleus	Produces ribosome's	Both
CHROMATIN	In the nucleus, made of DNA and protein, contains genes	Provides instructions for the cells activities, (growth, reproduction)	Both
ENDOPLASMIC RETICULUM	Clear, tubular system of tunnels throughout the cell	Transports materials like proteins around the cell	Both
RIBOSOME	Small specks made of RNA. Found in cytoplasm or on the endoplasmic reticulum	Makes proteins	Both
MITOCHONDRIA	Location in the cytoplasm, bean shaped	Supplies energy or ATP for the cell through cell respiration using glucose and oxygen	Both

VACUOLE	Large open storage area, smaller in animal cells	Storage tank for food, water, wastes or enzymes	Both
CHLOROPLAST	Green structures that contain chlorophyll	Captures sunlight and uses it to produce food through photosynthesis	Plant
GOLGI BODY	Small bags with tubes connecting them	Packages and secretes proteins for use in and out of the cell	Both
LYOSOME	Small, round structures, containing enzymes	Digests older cell parts, food or other objects	Both
CENTRIOLE	Small cylindrical	Used with the spindle apparatus during mitosis	Animal