

found in

plants  
Both  
Both

water + energy  
to sugar  
by releasing  
hormones  
which regulate  
the release of  
nutrients

water + oxygen  
by respiration

plants

Part

Vacuole  
lysosome  
vesicle

membrane-bound  
sac containing  
water + oxygen

Function

The cell  
contains water  
break down  
energy +  
nutrients within  
the cell

Flexible membrane  
bound sac that  
contains water

Structure

small number  
bound sacs

similar to

chloroplasts

mitochondria  
similar to  
chloroplasts

structural  
functions

similar to  
chloroplasts

structural  
functions

small number  
bound sacs

flexible membrane  
bound sac that  
contains water

water + energy  
to sugar  
by respiration

water + energy  
to sugar  
by respiration

water + energy  
to sugar  
by respiration

<u>Cell Part</u>	<u>Structure</u>	<u>Function</u>	<u>found in</u> <u>Animal Plant</u>
Cytoplasm	jelly-like fluid that fills the cell	to hold + carry all molecules necessary for building/ maintaining cellular structures	Both
Nucleus	circular membrane, pores	protects DNA, allows certain molecules in/out (RNA) to "read" DNA code	Both
Ribosome	small, abundant floating in cytoplasm	to build proteins from molecules (amino acids) carried in the cytoplasm.	Both
Mitochondria	highly folded membranes, bean shaped, highly structured, internal "factory"	converts sugar to ATP. membranes increase surface area for ATP production	Both
Cell wall	highly structured matrix, several layers made of complex cellulose molecules	provides both protection + structure. Adds rigidity + strength to cells.	Plants
Cell membrane	flexible, fluid double layer of lipids (fats)	protects the cell, provides some structure allows things in/out	Both