

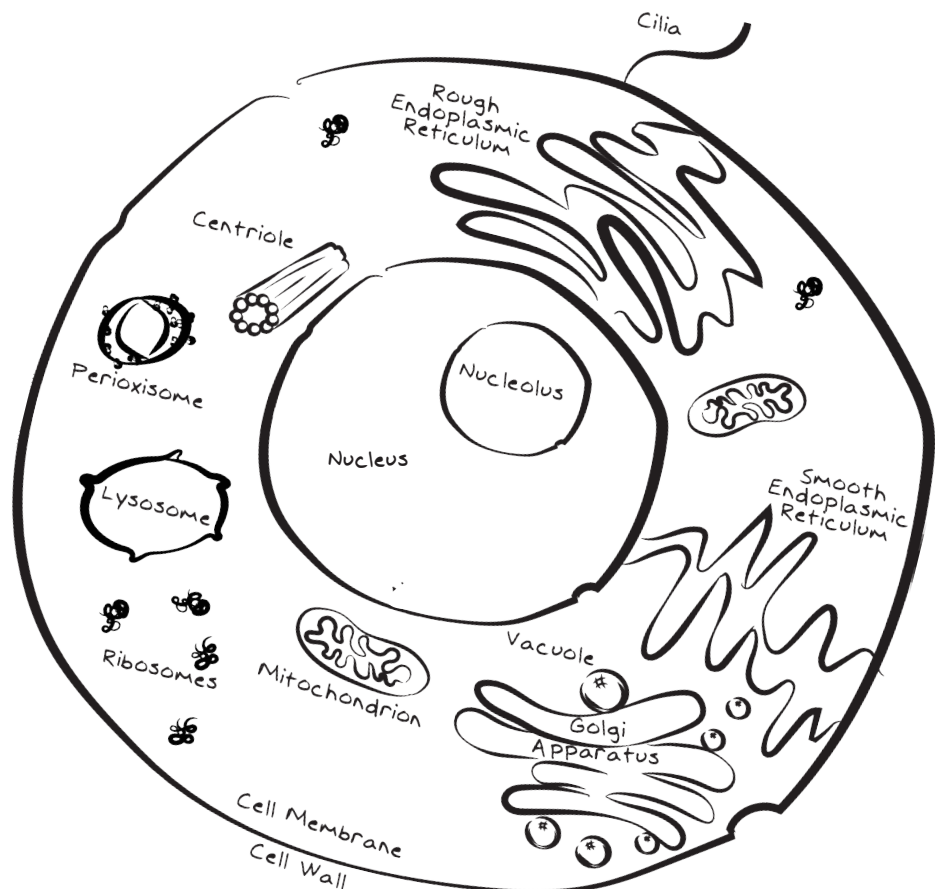
## Organelles Are Tiny Structures Inside a Cell

When you take a closer look at plant or animal cells under a microscope, you can see that there are tiny structures inside each cell. Scientists observed that these tiny cell parts all perform different jobs that help cells function. The first scientist that discovered these smaller cell parts thought of them as tiny organs, so he called them **organelles**, which literally means “tiny organs.” Organs in our bodies, like the heart, liver, and lungs, help our bodies functioning in a similar way that the tiny organelles inside cells help cells function.



### Animal Cell

*This diagram shows the organelles commonly found in an animal cell.*

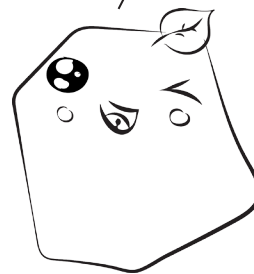


The cell wall and the nucleus were the first organelles to be discovered in the late 1600s because they were the easiest organelles to find. You should be able to find the cell wall and the nucleus with a microscope during your hands-on activity. Other important organelles can be much harder to find and require sophisticated microscopes to see them. New organelles with special functions are still being discovered!

Which organelles are unique to plant cells?

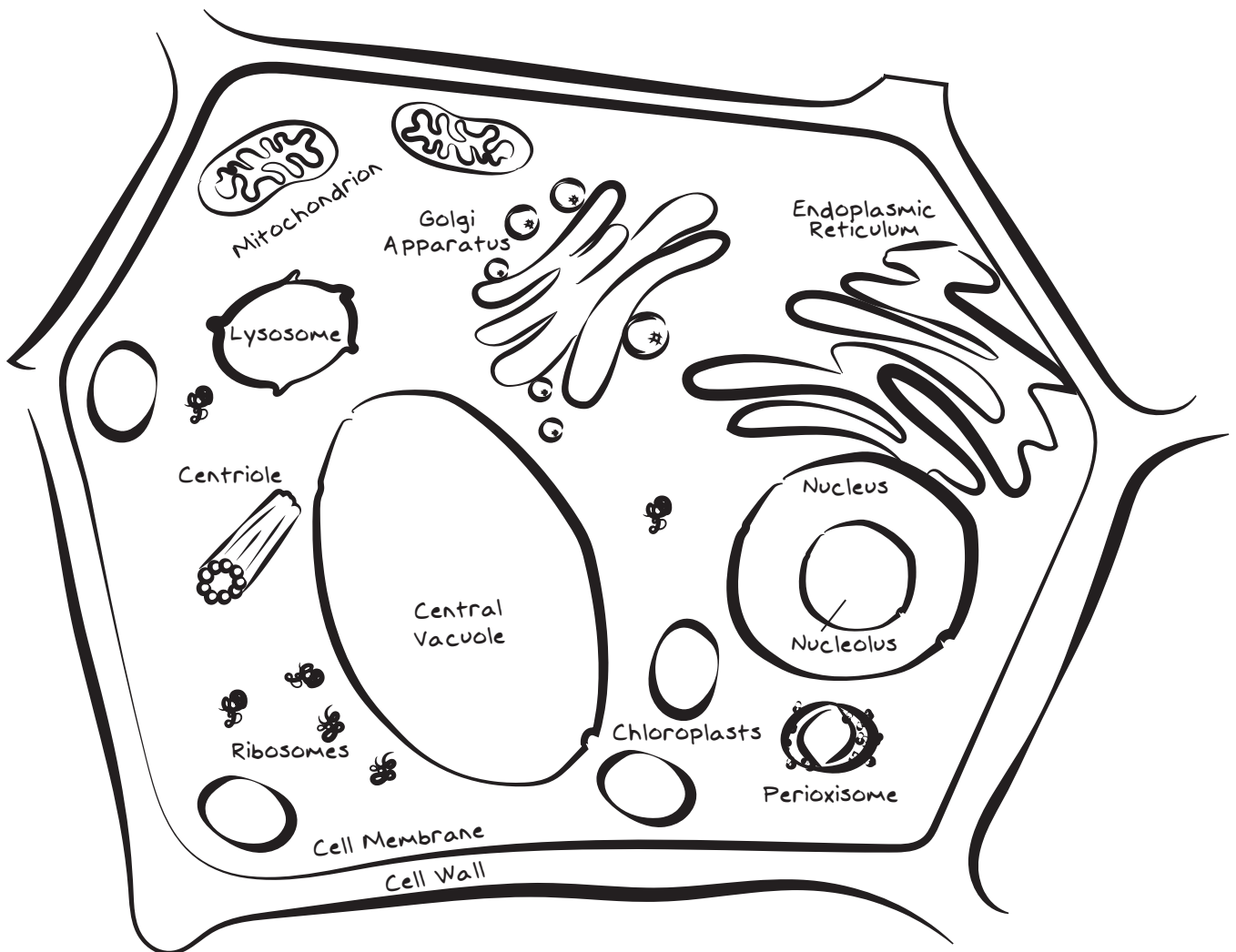
Sew a mini cell pillow!

See instructions online.



### Plant Cell

These are the organelles typically found in plant cells.



Color the organelles in the plant and animal cells.

## Each Organelle Has a Special Job

Just like you and your family members have jobs to do to keep your home functioning, each organelle has a special job to do that is important to a cell's function. Organelles all work together and depend on each other to do their jobs well. I am going to introduce you to a few organelles so you can understand some of the jobs that need to be done inside cells.



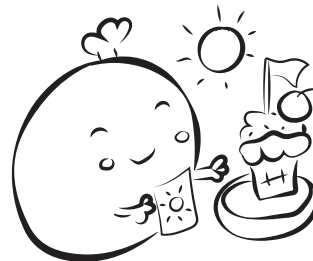
**Mitochondria**  
I make energy!



**Lysosome**  
I clean up messes!



**Golgi**  
I put sugar on proteins!



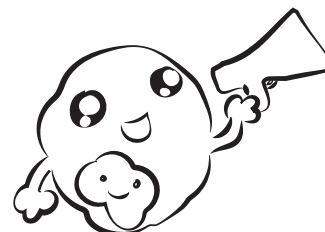
**Chloroplast**  
I make materials with photosynthesis!



**Ribosome**  
I make all the proteins!



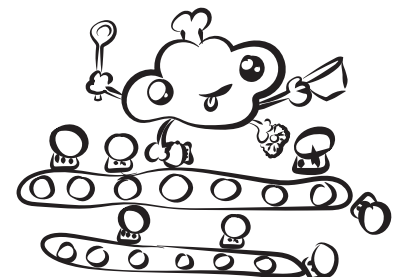
**Vesicles**  
I deliver proteins!



**Nucleus**  
I control everything!



**Centriole**  
I keep cells organized!



**Endoplasmic Reticulum**  
I am a protein factory!

