

Micropet

Cell Organelle



## Mitochondria (Myto)

Type: Cell Organelle

Found in: Plant Cells (One Myto), Animal Cells (Many Mytos)

I am always hungry and constantly eating. I am a lot like a digestive system for a cell. This is what I do; I take in nutrients, break them down, and create energy rich molecules for the cell. What makes me unique is that when I digest materials, I don't just make waste, I actually make the energy rich food that cells need to survive. I can generate energy 15 times more efficiently than other common cell processes. I allow complex creatures like you to exist.

Special Ability: Energy Burst

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## Lysosome (Liza)

Type: Cell Organelle

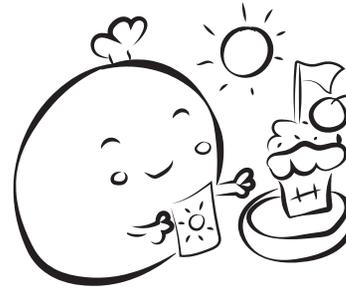
Found in: Plant Cells and Animal Cells

I am busy working and cleaning all the time. I keep cells clean by breaking down unwanted materials and old cell organelles. It might help to remember the name "Lysosome" if you think of Lysol cleaning spray. Lysol is what you use to clean your bathroom, and I clean the cell. Like your stomach, I secrete acid to break down organic materials. I am known to contain up to 60 different cleaning materials (enzymes), so I am well suited to clean up just about any mess.

Special Ability: Acid Clense

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## Chloroplast (Chlor)

Type: Cell Organelle

Found in: Plant Cells

My special job is to soak up sunlight to conduct photosynthesis by capturing energy from sunlight. I use the energy from sunlight to capture hydrogen from water and combine it with carbon dioxide to make sugar. I am only found in plants and without my ability to make sugar (energy) from sun's energy, life on earth as we know it would not be possible. No plants equals no you!

Special Ability: Solar Power

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## Centriole (Centri)

Type: Cell Organelle

Found in: Animal Cells (Not in Flowering Plants)

I make tiny little strings called microtubules that hold things in place and organize the position of cell parts. My most important job is to produce the mitotic spindle that holds genetic material in place when it is being copied during cell division. To remember my name and job just remember that I hold the nucleus in the **center** of the cell. My name sounds like **center**, it's Centriole.

Special Ability: Tube Weave

STEMTaught®



## POCKETPets™ Organelles

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Meet the amazing organelles! These are the tiny structures inside cells that make them function. Much like organs in our bodies, organelles have special jobs that they do. Organells all work together in a cell to get lots of jobs done including; cleaning, making fuel, building, organizing, and releasing signals that tell the cell what to do and how to function. Which Organelle is most like you?

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## Golgi Golgi Body

Type: Cell Organelle

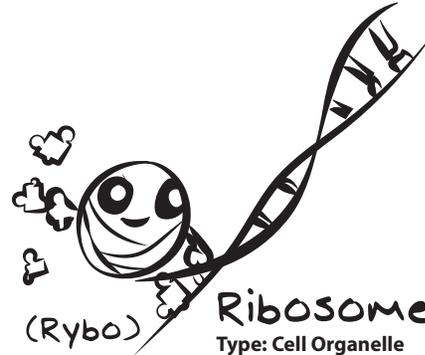
Found in: Plant and Animal Cells

I love to decorate proteins with sugar frosting! Really, that's what I do! The ER sends protein bubbles my way and I finish preparing them for the cell by adding sugars to them. I am like the cupcake decorator of the cell! I decorate protein cupcakes

Special Ability: Sugar Coating

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(Rybo)

## Ribosome

Type: Cell Organelle

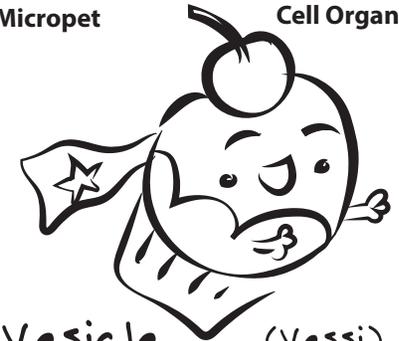
Found in: Plant and Animal Cells

I am a specialized builders of proteins. I make all sorts of proteins and each does a specific thing to help cells function. I make Enzyme proteins that cause chemical reactions to occur. I make hormones, the little molecules that cause cells to perform specific functions, I also make antibodies for our immune system to work, and structural proteins that make, muscles, feathers, and hair. Another important protein I make is DNA, the cell's genetic code. All these proteins are made by me!

Special Ability: Build Anything

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## Vesicle (Vessi)

Type: Cell Organelle

Found in: Animal Cells and Plant Cells

Hi, I'm a special organelle that floats around the cell like a bubble to deliver proteins to the places they need to be used. I coat proteins with a little bubble layer of lipids to keep the proteins safe. Lipids are fats and oils. You may remember that oil and water don't mix, so an oil bubble is the perfect thing to protect a precious cargo of proteins from the cell's water rich cytoplasm. I can disappear or pop when my proteins soak into larger organelles where they are used.

Special Ability: Bubble Blow