**Cell Parts 3**

Today in Science class, Mr. Smith taught us about even MORE cell parts.

Things I learned:

* Chloroplasts are found in plant cells and algae cells.
* Chloroplasts:
  + Organelle that produces chlorophyll to power the plant cell.
  + Chlorophyll is the chemical of photosynthesis.
  + Chlorophyll traps the energy of sunlight, which is then used by the plant cell to make sugar for energy.
  + Location:
    - Plants and algae
  + Description:
    - Green, oval containing chlorophyll (green pigment)
    - Double membrane with inner membrane modified into sacs called thylakoids
    - Gel like innermost substance called stroma
  + Function:
    - Uses energy from sun to make food for the plant
    - Process called photosynthesis
    - Releases oxygen
* Ribosomes:
  + Organelle that makes protein for the cell.
  + Location:
    - All cells
  + Description:
    - Small bodies free or attached to Endoplasmic Reticulum
    - Made of RNA and protein
  + Function:
    - Synthesizes proteins
* The ribosome is busily spinning a protein, moving quickly along the messenger RNA strand, translating it, and adding each new amino acid one by one. The protein folds into its proper shape as you watch.
* Vesicle / Vacuole:
  + Small sack that moves material in and out of the cell.
  + Location:
    - Plant cells have a single, large vacuole
    - Animal cells have small vacuoles
  + Description:
    - Fluid-filled sacs
    - Largest organelle in plant cells
  + Function:
    - Store food, water, metabolic and toxic wastes
    - Store large amounts of food or sugars in plants
* Lysosomes:
  + Organelle that eats worn out cell parts
  + It contains digestive enzymes
  + Lysosomes are round membrane surrounded structures that can be found anywhere in the cytoplasm.
  + Sometimes they are called suicide bags because they encase the worn out part that is to be digested.
  + Location:
    - Animal as well as plant cells
  + Description:
    - Small and round with a single membrane
  + Function:
    - Breaks down larger food molecules into smaller molecules
    - Digests old cell parts

