**Cell Parts 4**

Today in Science class, Mr. Smith taught us about yet more cell parts.

Things I learned:

* Cytoplasm:
  + The gel-like membrane inside of the cell membrane.
  + Keeps organelles in place
  + Location:
    - All cells
  + Description:
    - Clear, thick, jellylike material (cytosol)
    - Organelles found inside cell membrane
    - Contains the cytoskeleton fibers
  + Function:
    - Supports and protects cell organelles
* Cytoskeleton:
  + There are three kinds of cytoskeletons:
    - Microfilaments
    - Intermediate filaments
    - Microtubules
  + Location:
    - All cells
  + Description:
    - Made of microtubules and microfilaments
  + Function:
    - Strengthens cell and maintains the shape
    - Moves organelles within the cell
* The cytoskeleton, a network of protein fibers, crisscrosses the cytoplasm of eukaryotic cells, providing shape and mechanical support. The cytoskeleton also functions as a monorail to transport substances around the cell. A cell such as an amoeba changes shape by di8smantling parts of the cytoskeleton and reassembling them in other locations.
* Microfilaments are one of the three types of cytoskeleton, assembled from smaller building blocks. They are responsible for cell movement and cell shape, as well as simply holding the cell together. These microfilaments are being rapidly constructed in response to the signal received a short time ago. They will brake the cell, and then they will force the cell into a new pattern of movement.
* Microtubules are a second portion of the cytoskeleton, the microtubules, is being assembled. These are the highways along which the organelles, those tiny parts of a cell, travel and are conveyed. They are not only assembled at one end, they are disassembled at the other, giving the impression of a forward direction of movement when in fact there is none.
* Centrioles:
  + Location:
    - Found only in animal cells
  + Description:
    - Paired structures near the nucleus
    - Made of a cylinder of microtubules
  + Function:
    - Separate chromosome pairs during mitosis
  + The focus shifts toward the nucleus in the foreground, and the MTOC with its star patter of microtube highways radiating from the cylindrical centrioles to all parts of the cell. There are controlling the events of the moment.

