**Magnetic Dust**

Today Mr. Smith did two demonstrations in class.

In the first demonstration, he took a clear piece of plastic and taped a magnet to the bottom of it. Then he taped a piece of paper on top and sprinkled iron dust on top of it. The dust gathered in such a way that you could see where the magnetic field of the magnet and the magnet were because the dust was attracted to it. He then traced the shape of the magnetic field and poured the iron dust off of the paper. All that was left was the shape of the magnetic field, so the shape was still there.

In the second demonstration, he had a container with iron dust floating in oil in it. There wax a hole going through the middle of the container so that you could put a magnet in it. He put a magnet in the center of the container and the iron dust grouped around the magnet, showing us a 3-D model of the magnetic field.

Things I learned:

* More rules of magnetism:
  + A magnet has exactly two poles.
  + A magnetic compass needle points directly North and South when allowed to spin freely.
  + There is an invisible (magnetic)field surrounding every magnet.
* Magnetite is a ferrous metal.
* A pole of a magnet is the end of a magnet where the magnetic properties are strongest.
* Compasses want to follow the magnetic lines of the earth.
* The earth is a giant magnet.
* The core of the earth is molten iron.
* The moon has no magnetic field.

