**Asteroid Belt and Jupiter**

Today in Science class, Mr. Smith taught us about the asteroid belt and Jupiter.

Things I learned:

* The distance between the Earth and the sun is 8 light-minutes.
* Light travels at 186,000 miles per second.
* Mars is 13 light-minutes away from the sun.
* Jupiter is 43 light-minutes away from the sun.
* Many asteroids move in similar orbits and belong to “families”. Each family probably represents the break-up of a larger “parent” body.
* Trojan asteroids move near Jupiter’s orbit, approximately 60 degrees ahead and 60 degrees behind the planet.
* An asteroid’s ability to reflect sunlight indicates its composition:
  + Very dark (Type C; 75% of all); solar composition (without H, He)
  + Bright (Type S; 17%) metallic Ni-Fe with Fe- and Mg-silicates.
  + Very bright (Type M; approximately 8%) pure Ni-Fe
* More than 100,000 asteroids are known to move in the main belt.
* The total mass of all asteroids in the inner Solar System is about 1/25 of that of the Earth’s moon.
* Near-Earth-Asteroids approach the Earth’s orbit and may sometime collide with our planet. The extinction of the dinosaurs, 65 million years ago, may be due to one or more such events.
* The largest asteroid is called Ceres.
* It is so large that it is spherical.
* It has a thin, dusty outer crust.
* It is about 597 miles across.
* Jupiter has very hard-to-see rings.
* There is a huge red spot on Jupiter that is a huge storm.
* Jupiter has a small rocky core.
* Supposedly Jupiter would have been a star if it had been bigger, but there wasn’t enough pressure so it didn’t ignite.
* The most powerful volcano in the solar system is called Loki, on Jupiter’s moon Io.

