

## Ingenuity Center Mobile STEM Activities

Set of 10 iPads with numerous classroom and science related apps

NASA certified to borrow lunar and meteorite samples (requests must be made at least 6 weeks in advance)\*

iGlobe 3-D display (earth and space science)\*

Weather/renewable energy/transfer of energy/conservation of energy

Robotics/NAO robot\* (robotics kits for the students to work with- **near future**)

Bridge-breaker/engineering/Westpoint bridge program

Crayon Physics computer game

Wide variety of science video clips/music videos, Bill Nye episodes, etc.

Water bottle rocket/Physics/Newton's three laws

- Physics: energy- forms and transformations (demos and examples)

Marble Roller-Coaster Lab

- Physics: potential and kinetic energy; law of conservation of energy

Pasco SPARK devices (can be used for a wide variety of measuring/instruments)- currently set-up for heart-rate measurement and activity, etc.

Wind-tunnel/aerodynamics

Biology/Microscope activities- currently setup to study microscopic pond life or animal/plant cell comparisons

Van de Graaff generator/Electricity

Various chemistry demos

- Various intro demos- egg in bottle, burning money, etc.
- Fluorescent and glow-in-the-dark science
- Clock reaction
- Elephant Toothpaste decomposition reaction
- Electrolysis of Water
- Slime/Gak; Oobleck
- Instant Snow
- Mentos and Diet Coke
- Gummy Bear/Potassium Chlorate reaction

\*Requires Ingenuity Center personnel

**Mobile STEM Lab training- 2-day training which allows for future drop-off use of Mobile STEM Lab and equipment/activities: week of July 29<sup>th</sup>, 2013.**