

Thursday, April 10, 2014 – “Designing a Mast” (Distance = rate * time)

Materials: mast string set-up, aluminum, paper, plastic bags, straws, and tongue pressers, and coffee stirrers

Science and Engineering

1. **Define** the problem
2. **Research** the problem
3. **Brainstorm** possible solution
4. **Choose** the best solution
5. **Build** a model or prototype
6. **Test** your solution
7. **Communicate** your solution
8. **Redesign** as needed

criteria – specifications to be met by your design

constraints- limiting factors to consider

prototype – a test model that contains only the essential design features

Design a mast. Choose a material to build the fastest mast. How do you know that yours is the fastest? We will find the rate.

Rate = Distance ÷ Time

Distance (Meters, Centimeters, Inches, Millimeters)	Time	Rate=??

Tuesday, April 15, 2014 – Atmospheres and Other Planets – Learning/Discovery

Materials: Two Jars. One ball and one cube of different masses. Coffee filters. Plastic bags. Sheer fabric. String.

Observation: What happens when I let the ball go in the water?

What happens when I let the cube go in the water?

What happens to the object when the jar is full of air?

Atmosphere: What do you think it is? (The air or gases around the surface of a planet)

Aerospace engineer: Engineers who work to design spacecraft or parts of things that fly, like planes.

How does the surface, size of the planet, location of planet in the solar system, atmosphere, and temperature helps us to design a spacecraft?

Planet _____

Drawing



Thursday, April 17, 2014 – “Building a Parachute” (Data collection)

Materials: Sheer fabric, string, plastic bags, and index cards

Building your parachute. Follow Canopy Material: Testing Parachutes and Building your parachute instructions. Choose “SMALL, MEDIUM , or LARGE” or “PAPER, PLASTIC, SHEER FABRIC”

Collect your data.

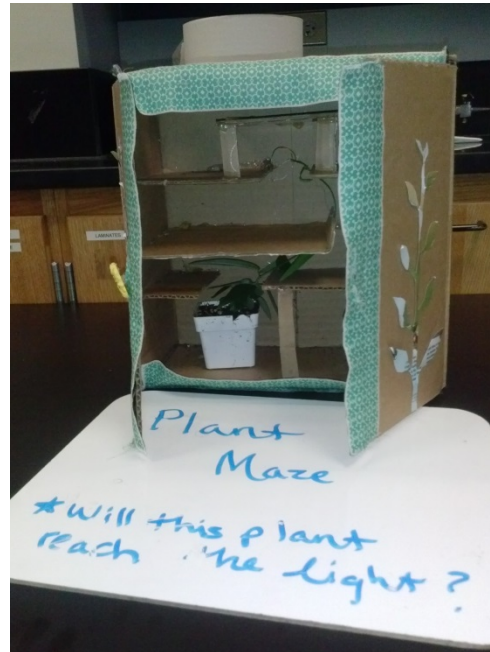
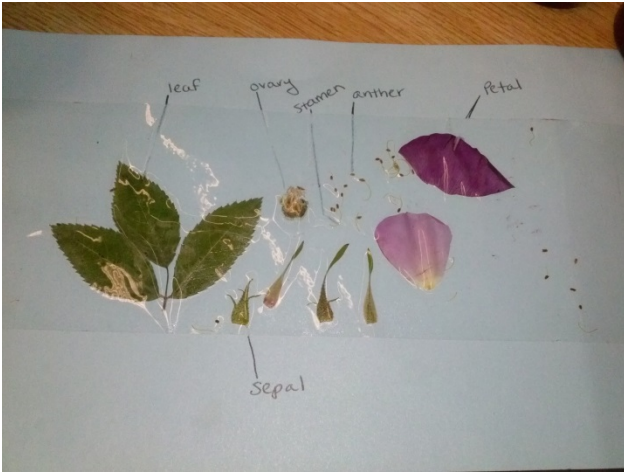
Thursday May 1, 2014 – “Parachute Data Analysis” and “Building a tower with index cards”

What type of parachute would you choose to use?

What size of parachute would you choose to use?

The Science Museum will be building an exhibition to show a dog. We must build a pedestal for the dog show exhibition. Use index cards to build a tower to hold the dog for more than 3 seconds.

Tuesday May 6, 2014 – Learning about plants – design a puzzle similar to what you see in the picture.



Thursday May 8, 2014 – Plant a “BEAN” for our “designed puzzle” to take home. How would you plan the bean? Side ways? Vertical? Horizontal?