



monthly - December

Projects: Mousetrap Car - Egg Express - Web Design
Model Science (Eye) - Speak Up - Robotics

Quarter 2 Project DUE DATE: *January 7, 2010*

Quarter 2 Projects are in Full Swing!

MESA students – both elective and club members – have now chosen a project on which to work over the course of the remainder of this quarter. For students enrolled in the MESA elective class, this project serves as 40% of the student’s grade for the quarter; therefore, it is very important for students and parents alike to understand the guidelines and expectations for the chosen project. In class, we have taken the time to review the various projects, taken careful notes on the official rules & regulations, and spent time researching the topic on line. Students must now budget their own time to follow through with the process of creating their project. Most of this work is to be done at home; however, I sometimes announce a special “work day,” where students may bring their materials and work alongside other students as they work on their projects.

In MESA, we often discuss the engineering “Design – Build – Test” cycle. Students work through this cycle several times, carefully observing the performance of their prototype, and making design modifications prior to testing once again. Each time students alter their design, careful notes and sketches should be made about the observations during testing. As noted above, all projects are due **January 7, 2010**. To be considered *complete*, projects must include the following components:

- 1 – DESIGN: Journal and/or logbook notes on the research behind the project, as well as the design sketches and specifications (measurements).
- 2 – BUILD: The physical project (mousetrap car, egg bundle, eye model, speech, web site burned to CD), built to MESA regulations as stated in the MESA Day Rules sheet for this project.
- 3 – TEST: Data showing evidence of the Design-Build-Test process, where data has been collected during multiple test trials of the project.

If you have any questions regarding your project or the requirements, please do not hesitate to contact me at ddedini@kingsburg-elem.k12.ca.us, or visit the CSUFresno MESA web site: mesa.csufresno.edu

January Tech Museum Field Trip

One important objective of MESA is to provide students with a variety of educational experiences to inspire them and spark their imaginations so they, in turn, may use their own ingenuity to design and solve engineering challenges, both now and in the future! Last year, a group of MESA students traveled to the Tech Museum of Innovation in San Jose, which proved to be a very rich learning experience. Fortunately, I have been able to set up this trip once again. While attendance to this trip is not mandatory, it is *highly recommended*. Since there are *limited spaces* for this trip, students may secure spots on a *first come, first served* basis. The details are as follows:

- Monday, January 18, 2010
- Tech Museum of Innovation
- The museum is open to school groups one hour prior to the general public. Since this is a school holiday, we are able to take full advantage of hands-on exploration of the museum almost exclusively!
- travel by bus to San Jose (roughly 5:15 a.m. – 7:00 p.m.)
- \$15.00 (if this is a financial hardship, please let me know)

Saturday Academy ~ Fast Facts:

Date: Saturday, December 12, 2009

Time: 7:00 a.m., then returning around 4:00 p.m.

Place: KHS parking lot, then travel by bus to CSU Fresno

Why: Hands-on academic experience with engineering concepts in preparation of MESA Day project work, and exposure to a collegial atmosphere

This Saturday Academy includes the qualifying round for the SOLO MATH QUEST COMPETITION. 1ST, 2ND, AND 3RD place winners will secure a spot at the **Regional MESA Day competition in Santa Cruz on April 24, 2010!
Practice packets are available for interested students!**

What: Experience a college campus first-hand, attend free workshops focused on math and science concepts through engineering design, and enjoy a FREE lunch (up to \$6) at the Fresno State student union! Students wishing to spend more may bring a few extra dollars to offset the extra cost

Who: Any student currently a) enrolled as a MESA student with CSU Fresno MESA Center and b) having a completed and returned parent permission form


Reminders:

1. It is a ***mandatory requirement*** for all **MESA elective students** to attend *at least two* Saturday Academy dates.
2. It is also ***mandatory*** for all MESA students to attend *at least two* Saturday Academy dates in order to compete in the preliminary competition on March 13, 2010 at CSU Fresno.
3. The date for the final Saturday Academy is **2/20/10**. I will post reminders for sign up cut-off date as it draws near.

Leadership

This year's MESA leadership team has continued to develop the leadership roles for Rafer's MESA group. Recently, they presented a lesson on surface area and construction of origami polyhedrons in elective class. While this proved to be a challenge, they did a great job of managing the task. The leadership team meets on a regular basis to help plan future activities and learning experiences for our RJJH MESA, and generate ideas to help make our MESA experience even better!

At this time of year, it is time to begin thinking about developing leadership for next year. If you are a 7th grader interested in becoming part of the MESA leadership for next year, please ask Mrs. Dedini for a **Leadership Interest Inventory** and **application**. You may be just the person we need to make our RJJH MESA the best yet!

 <p>RJJH MESA Leadership 2009-2010</p>	President ~ Matt Rosales	Vice President ~ Yvette Jaramillo
	Secretary ~ Calvin Liu	Treasurer ~ Yaritza Hernandez