

Board Agenda Item Checklist

1. Name of Trip/Narrative SECME Mousetrap Car Winners Competition - Students competed at the District Level in April, 2008 at BCC, Cocoa. SHS team won and has qualified to compete at the SECME competition at Tuskegee University in Alabama on June 25-30, 2008
2. Dates of Trip June 25-30, 2008
3. Time of Day Leaving 8:00 a.m.
4. Date & Time Returning 10:00 p.m.
5. Students:
 - A. Boys 3 - Ali Agha, Eddie Gouda, Nicholas Gibbs
 - B. Girls 0
6. Chaperones:
 - A. Boys 1 - Joe Midgett - Kennedy Middle School Teacher
 - B. Girls 1 - Olga Peraza
7. School Days Out 0
8. Total Cost of Trip \$512.00
 - a. Hotel 0
 - b. Transportation \$512 - \$312 car rental, \$200 gasoline
 - c. Additional 0
 - d. Total \$512.00

Students will pay \$170.00 each to cover the total cost of the trip.

9. Where Kids Staying (name, address, phone number):

Tuskegee University
8 Lane Road
Tuskegee, Alabama
(404) 894-3314

10. Dates Going to Board

A. May 27, 2008

B. June 17, 2008

SECME

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SECME: Lighting the Torch to Empower Future Leaders.

1st Annual SECME-NAMEPA Scholar's Luncheon

PLEASE VISIT OUR WEB - www.secme.org.
Click - "What's New" for further details!

Scholar's Luncheon
January 25, 2008
Atlanta, GA*

Featuring the nation's best and brightest college-bound juniors & seniors pursuing careers in engineering and related sciences.

Are you one of the SECME scholars that we're looking for?

If you are a SECME high school junior or senior with a 1200 or better on the SAT (combined Math and Verbal) or 27 on the ACT, visit www.secme.org to read eligibility criteria and to apply. The luncheon will be held on Friday, January 25, 2008, at the NAMEPA National Conference, Atlanta, Georgia. Scholars will be honored at the conference and will meet and greet recruitment faculty from Universities and NAMEPA Corporate Partners from around the nation.

* Transportation and lodging not provided; Must be able to attend to be selected
SECME-NAMEPA applicants are automatically entered into the SECME/ExxonMobil Scholars Competition

Mark your Calendars!
32nd Annual SECME Summer Institute - Tuskegee University, June 20-29, 2008

National Student Competition Teams, Fri, June 20 - Mon, June 23
Teachers/Counselors, Sat June 21 - Sun, June 29
Members & Guests, Sun June 22 - Wed, June 25
Leadership Academy, Sun Jun 22 - Thurs, June 26

SECME Students...THE DUPONT CHALLENGE
7th - 12th grade students are encouraged to enter
THE DUPONT CHALLENGE - Science Essay Competition.
More than \$25,000 in cash awards, all
expense-paid trips, exclusive tours, private
awards luncheon with an astronaut and much more!!
Visit the DuPont website for more details: www.thechallenge.dupont.com

Competition deadline: 1/28/08
Sponsoring teachers win too!

USF - Engineering EXPO

February 16, 2008

8:00 a.m. - 4:30 p.m.

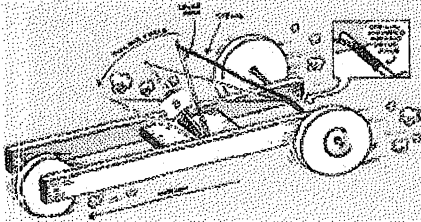
USF - SECME Competition - During Engineering EXPO 2008



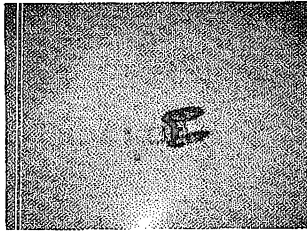
- **SECME Competition Winners 2008** " *SECME: Lighting the Torch to Empower Future Leaders.* " Saturday, March 8, was a fun-filled day of glider making, rocket launching and mousetrap car racing. The winners of the mousetrap car competition will be going to Tuskegee University June 26 - 29, 2008, to compete at the SECME National Student Design Competition. We would like to salute the following winners

- o 1st Place - High School Mousetrap Car - Team "Young Engineers"
- o 2nd Place - High School Mousetrap Car - Team "W.I.N."
- o 1st Place - Middle School Mousetrap Car - Team "JWMS"
- o 1st Place - High School Poster - Gerald Morris
- o 2nd Place - High School Poster - Kenneth Spradley
- o 1st Place - Middle School Poster - Morgan Rock
- o 1st Place - High School Essay - Blair Simons
- o 1st Place - Middle School Essay - Morgan Rock
- o 2nd Place - Middle School Essay - Jennifer Goolsby

Thanks goes to Dr. Sylvia Thomas, USF Engineering Students, Mr. E. Morris, Mrs. Watson, Mrs. Walker and all of our parent volunteers for making this an outstanding day. We are arranging transportation for the Mousetrap Car teams to fly in and out of Columbus, GA with a 30 mile ride to and from Tuskegee on Wed., June 28. We need 2 chaperones of which one needs to be a male, to travel with the team. If you can assist us with this, please let me know ASAP because if we purchase the tickets now, there will be a significant savings and funds available.



www.secme.org



Mousetrap Car Rules

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GUIDELINES FOR 2008 SECME ENGINEERING DESIGN COMPETITION (MOUSETRAP CAR: CONSTRUCTION AND OPERATION)

ENGINEERING DESIGN COMPETITION REQUIREMENTS:

(Any entry not meeting the following requirements will be disqualified.)

1. The Engineering Design Competition requires participation in each of these four areas:
 - a. Mousetrap Car, construction and run
 - b. Design Drawing of Mousetrap Car
 - c. Technical Report on Mousetrap Car
 - d. Team Interview with Judges
2. This is a team competition and should reflect the coordinated efforts of all members.
3. **Three (3) students must be on each team.** Members must remain the same at all levels of competition (school, state/regional site, and national finals).
4. Each team member is expected to be able to serve as a spokesperson and be fully involved with all aspects of the entry.
5. **A standard mousetrap—usually about 4.5 X 10 centimeters and weighing about 25 grams—must be used to build the car.**
6. Components of the mousetrap are: base (on which other components are mounted), spring, bail, locking lever, and bait hook (see component sketch on next page).
7. The mousetrap spring must be the sole source of power. **(You may NOT use rubber bands, CO₂ boosters, or any other agent or element for extra power).**
8. **In design and construction of the car, the original mousetrap spring and wood base MUST remain intact.** These two components may NOT be cut or altered in any way—physically, chemically, or thermally. Only the locking lever and bait holder may be removed from the base, if desired. The bail may be straightened but NOT cut (shortened), added on to, or reinforced. It must remain as a component of the completed car.
9. The spring must be visible and/or accessible to the judges for inspection.
10. The car must have a minimum of three wheels and can be made as long or short as desired as long as requirement #8 above is met.
11. Cars will be tested on a smooth flat surface. **Distance is measured from the starting line to the farthest point of travel, utilizing a straight line to connect the two points.**
12. **There will be two runs for each car; the better run will be used for final scoring of the mousetrap car's performance.**

(Note: See the page after the mousetrap sketch for Guidelines 13-15.)

Reference Sketch of Original Mousetrap with Component Identifications

13. Two formulas are used to calculate the Performance score for the car run:

and $X 100$

where:

N....is the score.

To ensure that cars actually perform and not just be small and light,

N=0 if D is LESS than 300 centimeters (for middle school/junior high teams)

N=0 if D is LESS than 600 centimeters (for high school teams)

w....is the mass of the original mousetrap (always taken as 25 grams). **NOTE:** At all competitions, this standard value will be used in calculating the Performance score.

W....is the total mass of the completed car in grams.

D....is distance measured in a straight line from the starting point to the stopping point in centimeters. D=2,500 if the car travels 2,500 centimeters or more.

L....is the car's longest dimension in any direction (not necessarily the length) in

centimeters, measured with the bail extended or retracted, whichever is greater.*

N_L ...is the highest Performance score at the competition site

F...is the final Performance score (to be combined with scores for the Design Drawing, Technical Report, and Team Interview).

**Judges will measure "L" (see illustration on following page) and "W" prior to the mousetrap car Performance runs. These measurements, together with "D" (determined by the car's run), are used to calculate "N" in the formula above.*

14. Overall Team Score in competition is sum of: 1) Performance (car run) as calculated above (max. 100 points); 2) Design Drawing (max. 50 points); 3) Technical Report (max. 50 points); and 4) Team Interview (max. 50 points). **Thus the maximum total is 250 points.**
15. See pages that follow for guidelines and evaluation sheets on each component of the Engineering Design (Mousetrap Car) Competition.

Measurement of "L," the Mousetrap Car's Longest Dimension In Any Direction—Not Necessarily the Length, Width, or Height

SCALE ^{16.7 cm}

"L" is the car's longest measurement along one of the three basic dimensions—length, width, or height—in centimeters with the bail extended or retracted, whichever is greater. The length of the car is defined as the distance from the furthest point at the rear of the car to the furthest point at the front. Likewise, the width of the car is defined as the distance from the furthest point on one side to the furthest point on the other. The height of the car is defined as the distance from the travel surface to the highest point of the car.

L (for this example) = 16.7 cm

2007 SECME ENGINEERING DESIGN COMPETITION: MOUSETRAP CAR CONSTRUCTION AND OPERATION (Evaluation Sheet)

Please Check: Middle School/Junior High Senior High School

Team Name: _____ School Name: _____

City/State _____

Each: Student Name _____ Grade _____ Age _____

 Student Name _____ Grade _____ Age _____

 Student Name _____ Grade _____ Age _____

Judge's Name: _____ Date: _____

Distance:

First Run _____ Second Run _____

X 100

w = 25 Grams

W = _____ [Measured weight, in grams]

L = _____ [Longest dimension—not necessarily the length—in centimeters]

D = _____ [Maximum D=2,500 if measured distance is more than 2,500 cm]

N = _____ [N=0, if D is LESS than 300 centimeters for middle school teams if D is LESS than 600 centimeters for high school teams]

N_L = _____ [Highest Performance score at competition site]

Mousetrap Car Performance Point Score: F= _____
(Note: F is combined with scores for Design Drawing, Technical Report, and Team Interview to arrive at Overall Team Score in competition.)

2007 SECME ENGINEERING DESIGN COMPETITION GUIDELINES: MOUSETRAP CAR DRAWING