



# Mousetrap Cars

Term 1 Physics Project

# The Rules

Must be powered by a single Victor brand mouse trap (or other brand that is similar to the Victor brand.)



# The Rules

- No energy storage or input other than the spring
  - No rubber bands, batteries, etc.
  - No adjustment of the spring
- No pre-fabricated kits!
- Vehicle must be self-starting
  - No pushing or running starts
- Vehicle must be self-steering
  - No "pushing" back onto a straight path
- All parts must stay on the vehicle throughout the race
- I have final say about the appropriateness of design and or materials!



# Reservations

- Wednesday: 26 November is practice day
- Monday: 1 December is RACE DAY!
- Must train a minimum of 3/4/5 in to receive a passing score
- One car for every two people
- Building (after tomorrow) will take place outside of school



Grade

Regular (Honors/AP)

- 5 m / 6 m / 7 m = 100%

- 4.5 / 5.5 / 6.5 = 90%

- 4 / 5 / 6 = 80%

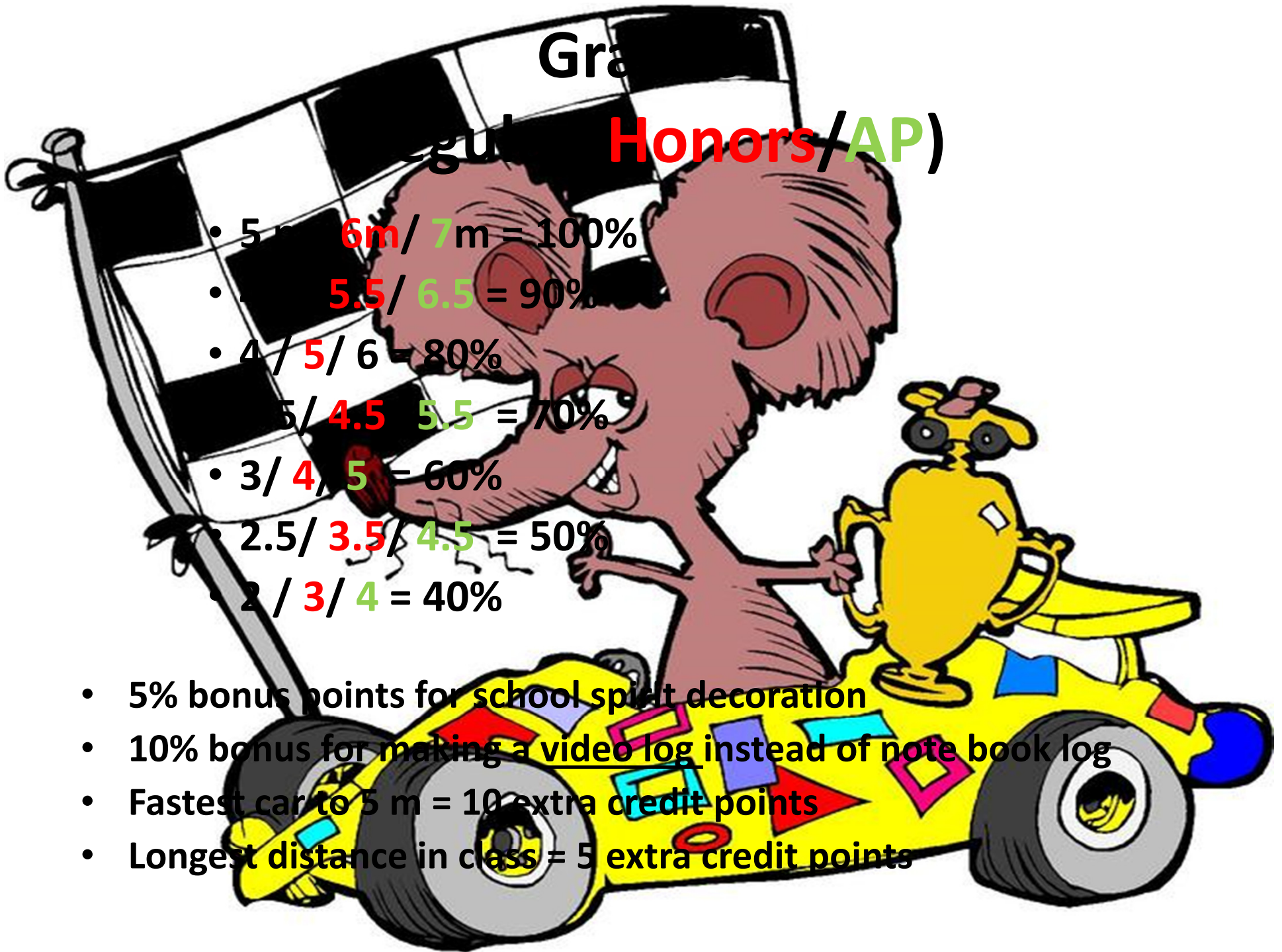
- 3.5 / 4.5 / 5.5 = 70%

- 3 / 4 / 5 = 60%

- 2.5 / 3.5 / 4.5 = 50%

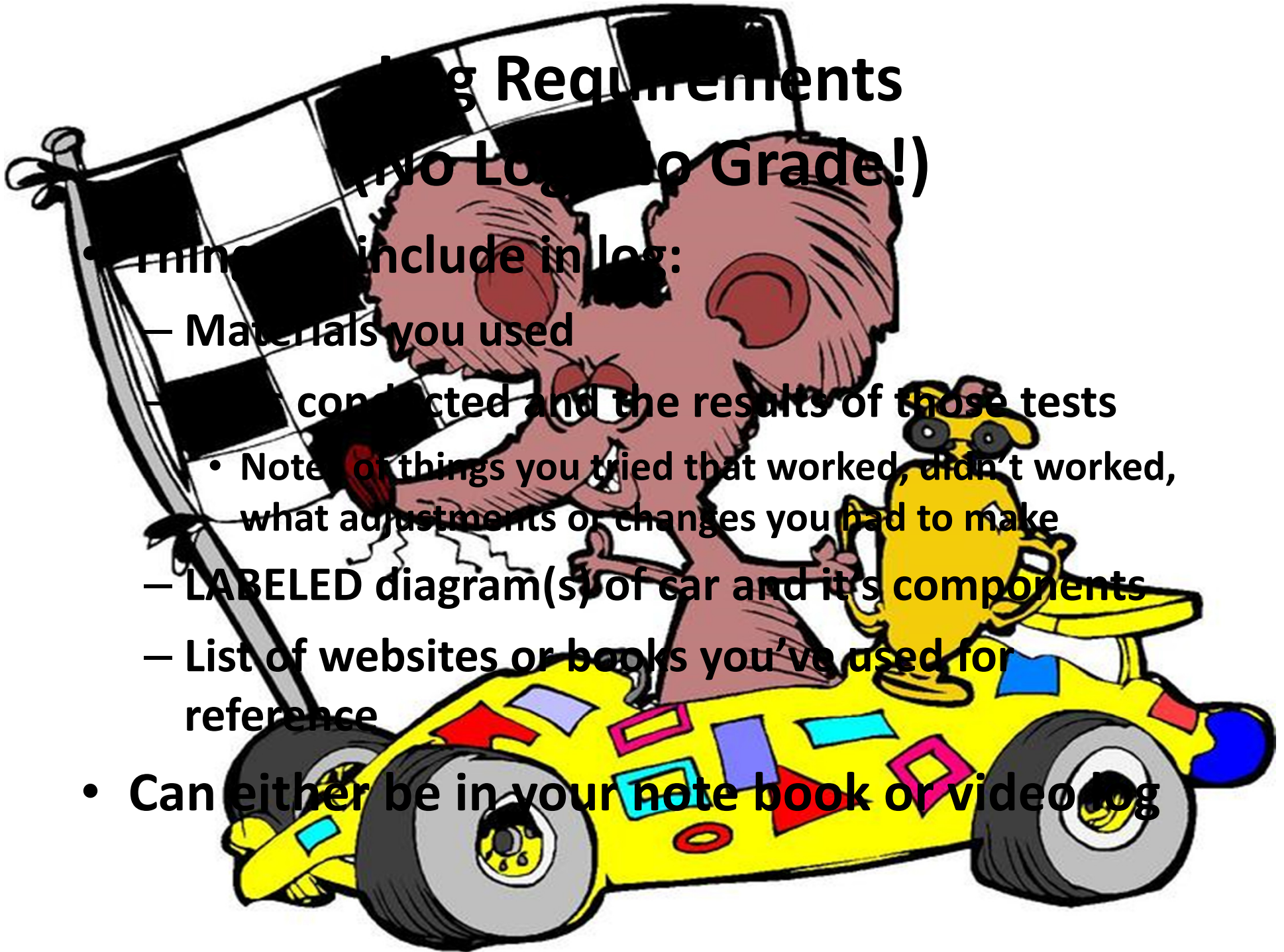
- 2 / 3 / 4 = 40%

- 5% bonus points for school spirit decoration
- 10% bonus for making a video log instead of note book log
- Fastest car to 5 m = 10 extra credit points
- Longest distance in class = 5 extra credit points



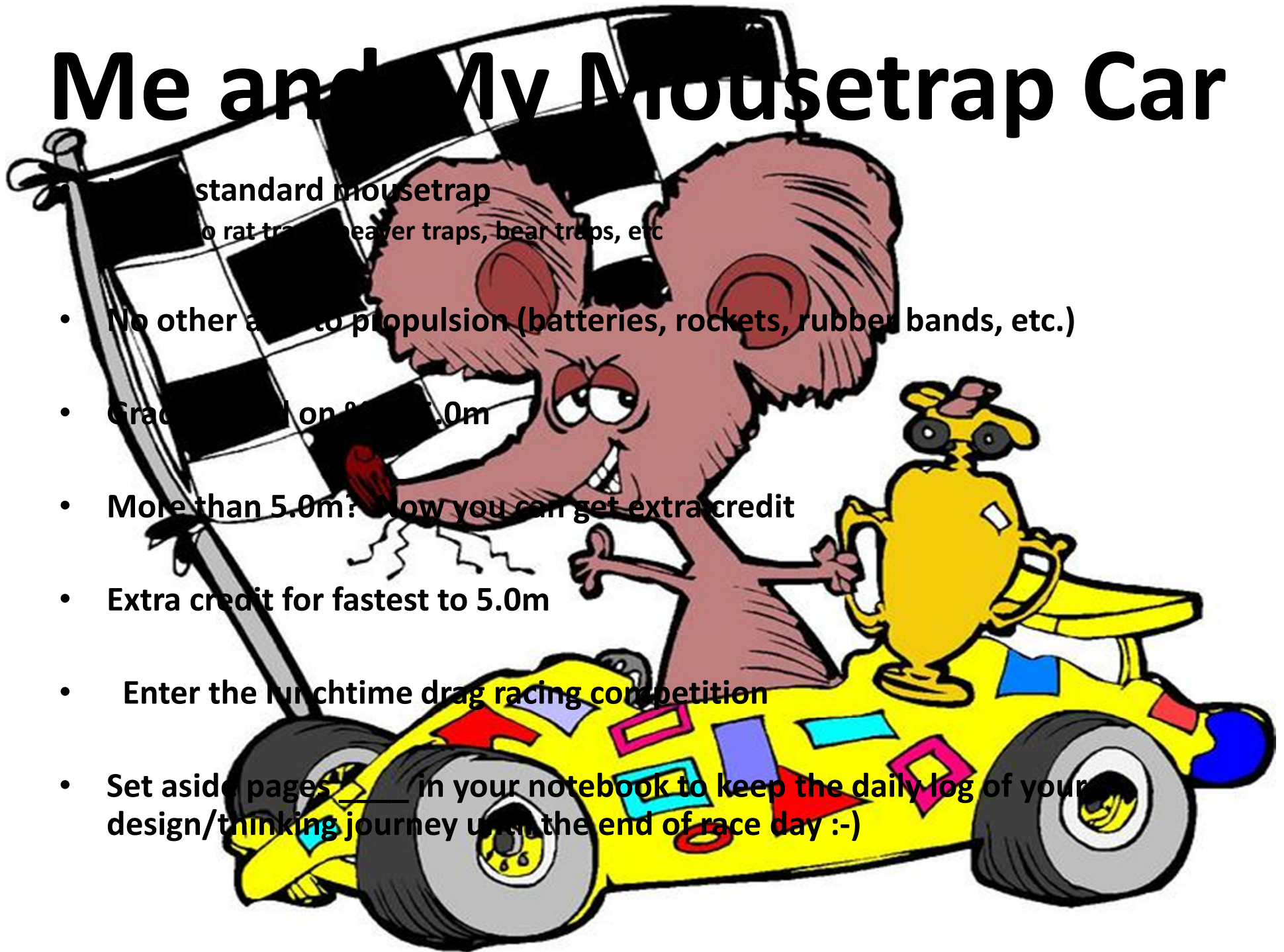
# Log Requirements (No Log, No Grade!)

- Things to include in log:
  - Materials you used
  - Tests conducted and the results of those tests
    - Notes on things you tried that worked, didn't work, what adjustments or changes you had to make
  - LABELED diagram(s) of car and its components
  - List of websites or books you've used for reference
- Can either be in your note book or video log



# Me and My Mousetrap Car

- A standard mousetrap
- No other aid to propulsion (batteries, rockets, rubber bands, etc.)
- Graduated on 8.0m
- More than 5.0m? Now you can get extra credit
- Extra credit for fastest to 5.0m
- Enter the lunchtime drag racing competition
- Set aside pages \_\_\_\_\_ in your notebook to keep the daily log of your design/thinking journey up to the end of race day :-)



# Triumph Competition

- What? PUHSD Physics Day!
- Where: Castles & Coasters!
- When: Next March!
- Prizes for top 3 winners

Bring your racer to compete against the other PUHSD schools! Go Bruins! Pride of the West Side!

