



# Physics Mousetrap Car Project

## What you need to know:

1. You will build a **car** using any or all of the parts listed on the **Materials List**.
2. Your car must move at least **5 meters**.
3. You must create and turn in a car design and description in order to participate in the races.

## Frequently given answers (to your FAQs):

1. You may work alone or with 1 or 2 partners.
  2. You may NOT work with someone from another physics class or hour.
  3. You may get your information from wherever you like – I would try the internet.
  4. You can have as many wheels as you would like.
  5. Your car must be just that – a car!
  6. The sole method of propulsion must be the mousetrap.
  7. You may NOT use a RAT TRAP!
  8. You may decorate your car anyway that you like – creativity is good!
  9. If you choose to work alone and are absent on the day of the competition, you cannot compete in the tournament but must still demonstrate your car's ability to travel at some time after school.
  10. You or your partner must turn your car in on the assigned day that it is due – no exceptions. In other words, if you choose to work with a partner and you are absent on the day of the competition, your partner must be there for the competition and completion.
  11. You will run your cars on the floor in the classroom.
  12. The cars must stay within their own lanes which are 1 meter wide.
- ❖ **Any cars with parts from the commonly found mousetrap car kits will be disqualified.**
  - ❖ **Any cars that break any of the guidelines listed above, or use non-sanctioned materials, will be disqualified**

## Mousetrap Car Materials List:

- 1 standard mousetrap (NO RAT TRAPS)
- 2 wire hangers
- 1 12" x 24" piece of wood or particle board (NO BALSA WOOD)
- 1 3 foot wooden dowel rod – diameter < 2 ½ in
- 1 3 foot piece of string or fishing line
- 3 pencils and/or pens
- 1 piece of 12" x 12" cardboard
- 4 compact discs and/or vinyl records
- 2 balloons medium sized (may not be used for propulsion)
- 4 jar lids
- 2 coffee cans with plastic lids
- 4 Straws
- Any metal fasteners (paper clips, screws, nails, bolts, etc.)
- Any plastic fasteners
- Any glue or cement
- Any tape

\*\*\*\*If you have a question, or are unclear about something, ASK first\*\*\*\*

## Project Timeline Calendar

MON	TUE	WED	THUR	FRI
3/2 Project Assigned	3/3	3/4	3/5	3/6
3/9 Designs Due	3/10	3/11	3/12	3/13
3/16 Cars Due	3/17 Races			

## Mousetrap Car Build Advice

- Draw sketches and document your building using pictures or video
- Reuse materials that you may already have at home
- Pick a reliable & hard-working partner (this may not be your best friend)
- Start early on research and development - the Internet will have lots of ideas, plans and pictures, etc.
- Purchase materials early (don't put off until the last minute, because stores may not have what you want)
- Keep good records of what you do, why you are doing it, and where your information/inspiration