Mouse Trap Car part ideas

(this list is continually being added to):

Wheels:

- [**Standard** → cd's with washer filler (1/4 " L or 19/32 " O.D. BEVELED – usually 4-6 per pack ~$2)]
- Toy wheels
- Plastic parts from an orange sherbet pushup
- Lids
- Metal ends of crescent roll containers (many other types of containers or CANS as well)
- Cup bottoms
- Old 45's and/or albums (ask first!)

Axles:

- [**Standard** → smooth steel rod, 15 cm long, 3/16" diameter (sold as 3-4 ft. rods ~$2)]
- Ink pen casings
- Plastic parts from an orange sherbet pushup
- Straws
- Pencils, markers, pens
- Wooden dowels
- Plastic hangars
- Cut up thick metal hangers

Body:

- [**Standard** → students have always created their own mouse trap car body]
- Box
- Cut out 2-L bottle
- Glue paint stirrers together
- Wood construction
- Glue rulers together (not mine)
- Styrofoam
- *Use the mouse trap as the body and screw eye hooks to the ends of the mouse trap for the axles to go through.
- cardboard

Lever arm:

- [**Standard** → Use a thick wire hanger, detach the spring from the mouse trap by carefully pulling the pre-existing lever from under the staples and re-attach the spring using an "L" shaped piece of wire as the lever arm. **DO NOT TAKE OUT THE PEGS THAT ARE STAPLED INTO THE MOUSE TRAP. Do NOT loosen these either!**
- Heavy gauge wire
- Tape a pole (pencil, dowel???) to the pre-existing mouse trap lever.

Other materials to consider: Lego's, straws, cans, pipe cleaners, toothpicks, rubber bands, thread, yarn, Popsicle sticks, staples, nails, pencils, aluminum foil, index cards, tape, paint, twisty ties, paper clips, lids from margarine dishes, glue, empty spools, old 45's, boxes, cardboard tubes (inside wrapping paper), etc.

Suggestions from other students and Possible Improvements…

- Adjust lever arm, how will string hook to axle?
- Make wheels grip more
- Make a different/better body, Make the chassis longer
- Reduce friction on the axle, Use a different axle
- Change the car's weight
- Check the alignment
- Adjust the string more carefully, Practice with the string
- Spend more time on the mechanics
- Think through the wheels and axle and connection to the body carefully. Problems: crooked, not smooth with body.
- Use wood glue to fasten the mouse trap to a wood body. OR screw the mouse trap to the body.
- How will you connect the lever arm to the mouse trap spring? Be careful connecting the lever arm to the spring/mouse trap. **Don't break the mouse trap**: the pegs in the mouse trap wood CANNOT come out!
- Get it done quickly so you have time to make adjustments and do a trial run (or two).
- Decide how to solidly attach the wheels to the axle.