

# Balloon Powered Race Cars



## Objectives:

- to create a balloon powered race car for maximum speed and distance
- to incorporate Newton's Laws of Motion
- to learn how to use the formula  $\text{Speed} = \text{Distance} / \text{Time}$

## Materials:

- 9 inch balloon is standard
- pen barrel or straw
- various materials to construct the racers
- Grading Rubric

## Rules:

- The car must be powered by no more than 2 balloons.
- You can build the car out of anything.
- It must have at least three wheels. Wheels are defined as anything that is round and goes around.
- The wheels **can not** be wheels from a toy car. They must be made out of something that was not originally meant to be used as wheels.
- The car may not leave the ground.
- The car must be capable of traveling at least 5 meters.

## Procedure:

1. You will bring in materials from home and assemble your car in class.
2. On race day we will set up a track in our classroom.
3. You will race in pairs against other classmates.
4. Cars that follow all of the rules will be eligible for awards.
5. Winning cars will be displayed in the lobby as well as on our web page!
6. These awards will be given in three categories.

- Best Looking Car
- Fastest Car (in first 5 meters)
- Farthest Distance Traveled

Good Luck!

This activity was inspired by Mr. Bings Physical Science Class.

This is his page:

<http://www.ahsd25.k12.il.us/School%20Info/South/Southfiles/Bingaman/motion/balloon/racers.htm>

