

# Inventioneering #4 -

## The Veggie Vehicle Derby



Introduction: How can you use the principles of Physical Science to create a working vehicle out of only fruits and vegetables? The Food and Drug Administration recommends we eat at least five servings of fruits and veggies daily. I bet they never imagined building a working race vehicle out of them!

Task: You are to create a vehicle made of at least 5 fruits and vegetables that will roll down an incline of its own power. The farther distance the vehicle can travel the better. You are not limited to the types of fruits and vegetables you can use; however, you may only use the additional materials:

- 3 bamboo skewers (provided by Mrs. L)
- 6 toothpicks
- 1 rubber band

Consider the following principles: inertia, friction, force, distance, work, and mass

Conditions:

1. Your vehicles "wheels" must rotate and roll
2. You may not use any additional materials or risk disqualification
3. Our wooden test ramp will be at a  $60^\circ$  angle to the floor
4. The vehicle body must not touch the floor/ramp when free standing

5. You will place your vehicle at the top of the ramp and it should roll on its own
6. Your project may not exceed \$15 in expense, the cheaper the better.
7. You may only work alone or in pairs.

Date Assigned: \_\_\_\_\_

First Due Date: \_\_\_\_\_  
(Partner choice in writing)

Classroom Demonstration Date: \_\_\_\_\_