

Name: _____ Period: _____ Date: _____

Balloon Racers

Directions: With the people in your engineering team, draw a diagram for your transit vehicle. Be sure to include all materials that are being used to build your vehicle and how you will attach your mass.



Step 1: Determine who is going to be in charge of inflating the balloon and releasing it, the four timers, and the recorder.

Inflating: _____

Timer 1: _____

Recorder: _____

Step 2: Once you have assigned your roles, you may begin to build and test your transit vehicle. Be sure to answer the questions below.

- 1) As you are building your transit vehicle, what are you going to use in order to move your vehicle? Explain how you think this works.

- 2) Write down any observations that you have about building and testing your vehicle (at least 3 observations). Examples- We noticed that the vehicle travels best when... or We saw that the best way to attach the mass is to...

Step 3: Once you are confident in your vehicle's ability to move, measure a zip-line of 5 meters. Record how long it takes for your vehicle to cross the 5 meter gap. Record at least 3 trials.

Trial Number	Time
1	
2	
3	

Step 4: Once you have your 3 trials recorded, try to get your vehicle to travel as far as it can. Record your 3 furthest distances.

Trial Number	Distance
1	
2	
3	

- 3) Record any changes that you made to your vehicle in order for it to travel as far as it could. Explain why you made those changes in the box labeled explanation.

Changes Made	Explanation