

Balloon Cars Challenge

Data Table

Mass of car: _____

Trial	Distance, m	Time, s	Speed, m/s	Observations
1				
2				
3				

Post-Lab Questions

- Calculate and record the speed of the car for each trial in the data table.
- What is the average speed of the balloon car prototype?
- After you have tested the redesigned balloon car, answer the following:
 - Describe the changes your team made to the prototype car and how the changes affected the car's performance.
 - Which variables that affected the balloon car's performance were difficult to control?
- Consider a balloon car that is traveling at a constant speed.
 - Describe the forces acting on the car.
 - Taken all together, are the forces balanced or unbalanced?
 - Once all the air from the balloon is expelled, what will happen to the car?
 - Explain your reasoning for the answer to 3c in terms of Newton's laws.