Balloon Rocket Data Recording Sheet

Describe the device your team built, and the cargo it will carry.

_____

_____

How will it safely transport people or cargo?

_____

_____

1. What is the ***measurement*** from your start to finish line? _____

   What is the ***mass*** of your inflated balloon? _____
   (You can use a clip to keep the balloon opening closed, weigh it, and then subtract the mass of the clip.)
   How many balloon pumps did you use? _____

   What is the ***mass*** of your cargo? _____

   How long does it take for the balloon to move across the finish line? _____

   Is there anything you can do to change the time?
   _____

   Run the same test several times to verify your results.

2. Try the activity with balloons of different shapes and sizes. *Be ready to discuss your results.*

   Inflate the same type of balloon to different sizes.
   (Measure the circumference of the balloon with a tape measure.)

   Show your results.

Balloon Circumference	Distance Traveled	Length of Time

3. For more of a challenge, try angling the string up so the balloon rocket has to climb to reach the end! *Be ready to discuss your results.*
   - Try the experiment on flat, downward, and upward sloped strings to see how the angle of the string changes the results.

NOTES:

4. Experiment with friction by testing different types of string. *Be ready to discuss your results.*
   - Does your device move just as easily over each type of string?
   - Why or why not?

NOTES:

5. How does the balloon mass affect its movement? *Be ready to discuss your results.*
   - Do a number of trials with the same setup but add mass to your cargo holder each trial (paper clips or clay can easily be weighed, added, and removed to any setup).

Cargo Mass	Distance Traveled	Length of Time