Name: _____ Period: _____

3,2,1 Blast Off!

Purpose: To determine the relationship angle and rubber band power has on the distance a rocket is launched.

Materials: Elatic Launcher, rocket, meterstick.

Elastic Launcher Angle Table 1

Power Setting: _____

Angle (degrees)	Measured Distance (meters)	Average distance for each angle (meters)

Elastic Launcher Power SettingTable 2

Angle setting: _____

Power Setting	Measured Distance (meters)	Average distance for each power setting (meters)

Analysis:

1. Calculate the average distance for each set of trials. Show calculation for one measurement.

2. Compare the three distances traveled by the rocket launched at the 30 degree angle in table 1. Are there any differences? What are some possible experimental errors that caused these discrepancies?

3. Compare the average distances traveled by the rocket launched at 30, 45 and 60 degrees. Which angle launched the rocket the furthest? Do your results verify what physics says the maximum range of the rocket launcher should be? Why?

4. Compare the average distances traveled by the rocket launched at the different power settings. Are there any differences? What are some possible experimental errors that caused these discrepancies?

5. Explain how the Elastic Launcher worked. Draw a diagram for full credit.