**Inquiry Lab – Popper Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Per \_\_\_\_\_\_\_\_**

**\*\*YOU WILL NEED TO ATTACH YOUR LAB WRITE UP TO THIS SHEET OR SHARE ON GOOGLEDOCS. TURNING IN ANSWERS WRITTEN ON THIS SHEET ALONE WILL RESULT IN HALF CREDIT.**

You and your team have been given an object that requires analysis. You have only limited lab equipment at your disposal, none of which will directly give you the answers you are looking for. You may use any notes, formula sheets, textbooks, etc. You have available the use of a meter stick, a ruler or meter stick, and a balance or electronic scale.

Specifically, you are looking for three answers:

1. The gravitational potential energy of the popper at its highest height from the table.
2. The maximum velocity of the popper as it leaves the table.
3. The net force exerted by the popper on the table.

As a team, you must:

1. First discuss in detail how you will go about solving the problem. The entire lab and results are in your hands, be prepared to defend your methods.
2. Write the research question. This is your objective. Be detailed and specific.
3. Draw a picture of the problem with all the details of the known and unknown data.
4. Write out the procedures for gathering the data. Someone not on your team should be able to follow these procedures completely on their own.
5. Do the experiment and gather the data. Determine how many trials may be necessary. Be very specific when you are estimating. For every decision and step in the process, you must explain the team’s reasoning.
6. Do the calculations to determine the correct results. Explain the use of any formulas. You decide as a team if there are data tables or graphs. There is no single correct method to solving the problem, but there are correct answers.

**Each student must do their own copy of the lab report.** You may use your lab notebook or type the report.

There must be a proper conclusion that restates the objective, summarizes the results. In other words, the lab report must be done properly.

Below is a list of things you should be able to calculate that may help you. Write the formula or strategy for finding each below:

1. Mass of popper
2. Height of popper
3. GPEmax
4. KEmax
5. Velocitymax
6. Work put in
7. Force put in