**Popper Inquiry Lab 2021 Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Per \_\_\_\_\_\_\_\_**

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 ruler or meter stick, and a balance or electronic scale. Each student must complete and submit their own lab.

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 write these items on a separate sheet:

1. Draw a picture of the problem with all the details of the known and unknown data.
2. Do the experiment and gather the data. Complete three trials averaging the data.
3. Do the calculations to determine the correct results. Explain the use of any formulas.

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 popper flies
3. GPEmax
4. KEmax
5. Velocitymax
6. Work put in
7. Force put in