**PHet Simulation Collision Lab**

**Objective:** I can describe that momentum depends on the mass and velocity of the objects and that momentum is conserved in elastic collisions.

**Website:** <http://phet.colorado.edu/sims/collision-lab/collision-lab_en.html>

Go to the simulation tab that says introduction. Make sure the more data button (yellow button underneath the table) is clicked. Fill out the “Before” section, and then start the simulation, record the data in the table below. The “P” stands for

Momentum-(the French word for momentum starts with a p!) Calculate the momentum by multiplying the mass of each ball by the velocity. Fill out the table below with as many combinations as you can. Make sure to have the masses the same and the velocities different, and have the masses different and the velocities the same. When done with the Table, answer the Lab questions.

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Before** | | | | | | **After** | | | | | |
| Mass 1 | Velocity 1 | P 1 | Mass 2 | Velocity 2 | P 2 | Mass1 | Velocity 1 | P1 | Mass 2 | Velocity 2 | P2 |
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Things to remember…..

1. Slide the bar to 100% INELASTIC

2. + velocity moves ball right

3. - velocity moves ball left