Go to Physics Aviary Wally Impulse Lab   Name_____

Force, mass and time are easy to find on the screen.

The photogate time is the time it takes for Wally to travel between the two red lines of the photogate.

Why should you shut off before he reaches the first red line?

If you hit shut off, is his speed constant or changing between the red lines? How do you know? What assumption are you making?

Which of Newton's laws apply? Explain.

What is Wally's starting speed and how will you figure out change in speed?

How will you change ms to seconds?

See back…

Fill in the table, using masses, extinguisher force, and force time of your choosing. Remember that product means multiply.

Extinguisher force (N)	Force time (seconds)	Product of force and time (Ns)	Mass of Wally (kg)	Change in speed of Wally (m/s)	Product of mass and change in speed of Wally (kgm/s)

Conclusion: How do the products compare? Write an equation to show the relationship between. Force (f), time (t), mass (m) and change in speed (Δv)

Find a definition of the physics term, impulse. Write it here.

Is impulse a vector or a scalar?