**Noteguide Impulse and Momentum - Videos 6C Name**

Write down what these symbols are below:

**Impulse = F Δt = m Δv**

Example: A pitcher pitches a 0.145 kg baseball at +40. m/s, and the batter hits it directly back at -50. m/s to the outfield. What is the average force exerted by the bat if the collision lasted 0.013 s? (-1.0E3N)

Why Δv is tricky:

Whiteboards:

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| What force for 10. seconds makes a 2.0 kg rocket speed up to 75 m/s from rest?  (15 N) | A baseball bat exerts a force of 200. N on a 0.50 kg ball for 0.10 seconds. What is the ball’s change in velocity?  (40 m/s) |
| Jolene exerts a 50. N force for 3.0 seconds on a stage set. It speeds up from rest to .25 m/s. What is the mass of the set?  (600 kg) | Draw a cartoon dog here: |

**Deriving Newton's Second law:** (Write down the math steps from the last video)