

# Physics 112

Tuesday, November 28/17

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## **Blocked Off -> After School: Wednesday Lunch - 1st Half: Thursday**

1. FA - Impulse-Momentum Theorem
2. Questions re Momentum, Impulse, Impulse-Momentum Theorem?
3. "Explosion" Lab
4. Worksheet - C5 - Impulse-Momentum Page 203: PP #33-35  
Worksheet - C5 - Momentum and Impulse-Momentum  
Page 209: PFU #37-45  
Multiple Choice - Momentum and Impulse  
Worksheet - Extra Momentum, Impulse and Impulse-Momentum  
Theorem
5. SA - U2 S3 -> Momentum, Impulse and Impulse-Momentum Thm  
MC and Problems  
Friday, December 1/17  
Review Learning Targets!

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6. Unit 3 - Work and Energy - Learning Targets/Tracking Form
  7. U1-S3: Work - Concept Sheet
  8. Work
  9. Three Cases - No Work is Done
  10. Types of Work: Positive and Negative
  11. Work Done by Forces - F vs D Graphs

## Formative Assessment -> Impulse-Momentum

### Nov. 27/17

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After a bat strikes a baseball, the baseball has a momentum of 5.0 kgm/s north. If the baseball has a mass of 100.0 g and experienced an impulse of 9.0 kgm/s north when hit, what was the initial velocity of the baseball? **D3.7**

## Physics 122

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### **Blocked Off -> After School: Wednesday Lunch - 1st Half: Thursday**

1. Return -> SHM and Energy
  2. Questions?  
Worksheet - Horizontal Projectiles - PP #1-8
  3. Projectiles Fired at an Angle
  4. Special Case
  5. Formulas: Projectile Launched At an Angle
  6. Examples - To Be Continued
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## Formative Assessment -> SHM and Energy

### Nov. 27/17

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A mass of 1.53 kg is attached to a spring and the system is undergoing simple harmonic oscillations with a frequency of 1.95 Hz and an amplitude of 7.50 cm.

- What is the speed of the mass when it is 3.00 cm from its equilibrium position?
- What is the total energy of the system?

$$E_T = \frac{1}{2} m v^2 + \frac{1}{2} k x^2$$

$\uparrow$                        $\uparrow$   
 P                              P

$\swarrow$   
 $E_T = \frac{1}{2} m v_{\text{max}}^2$

$\searrow$   
 $E_T = \frac{1}{2} k A^2$

# Science 10

Tuesday, November 28/17

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## **Blocked Off -> After School: Wednesday Lunch - 1st Half: Thursday**

1. SA - Physics #1 - Topics
  2. Questions?  
Worksheets - Rearranging Equations
  3. Metric Conversions
  4. Worksheets - Metric Conversions
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5. Physical Quantities - Definitions, Variables and Units
  6. Graphing Basics

## SA - Physics #1 - Topics

1. definitions: physics, linear motion, physical quantity, significant digits, certainty, exact value, defined value, rounding digit, defining equation
2. SI System - International System of Units
  - know the SI base units for length, time and mass
  - be able to identify a derived unit
3. certainty - identify certain and uncertain digits in a measurement
  - determine the certainty of a measurement by stating its number of significant digits
4. SDs and operation rules - Certainty Rule
  - > multiply and divide
  - > total # of significant digits
  - Precision Rule
    - > add and subtract
    - > # of digits after the decimal
5. rearrange an equation for a specified variable
6. perform metric conversions using conversion factors