May 23 - Victoria Day (Monday)
May 27 - Professional Learning Day (Friday)

Physics 112 Monday, May 9/16 http://mvhs.nbed.nb.ca/ http://mvhs-sherrard.weebly.com/

\*Library Books

## Explain That Stuff - May 13/16

### Adopt a Family

- 1. Investigation: Atwood's Machine 1 Day Late
- 2. Check:

Worksheet -> Textbook: Page 197, #29 (C5) [Momentum]

Textbook: Page 200, #30-32 (C5) [Impulse]

Worksheet -> Textbook: Page 203, PP #33-34

Textbook: Page 209, #37-45

Worksheet -> Multiple Choice: Impulse and Momentum

- 3. Test Unit 2 Wednesday, May 11/16
- 4. Unit 3 Work and Energy Section 1: Work
- 5. Three Cases When No Work is Done
- 6. Worksheet: Text Page 221, PP #1-3 Worksheet: Text - Page 225, PP #4-10
- 7. Positive and Negative Work
- 8. Worksheet: Text Page 235, PP #14-15
- 9. Assignment: U3-S1 Date TBA

#### Physics 112

#### Topics -> Test: Unit 2 - Dynamics

- 1. definitions -> dynamics, force, net force
- 2. types of forces -> contact and non-contact

-> examples

- 3. five specific forces -> W,  $F_A$ , N, T,  $F_f$
- force of friction -> static and kinetic coefficient of friction -> static and kinetic
- 5. FBDs -> draw and label

-> interpret

6. static equilibrium ->  $\mathbf{F}_{net} = 0 \text{ N}, \mathbf{a} = 0 \text{ m/s}^2$ 



-> objects at rest

-> objects moving with constant velocity

- 7. inertia and mass
- 8. Newton's First Law of Motion -> Law of Inertia

-> objects at rest or moving with constant velocity

9. Newton's Second Law of Motion -> Law of Force, Mass and

Acceleration

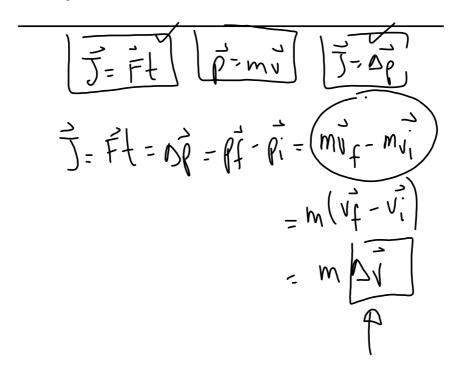
-> accelerating objects

-> Atwood's Machine Problems

10. Newton's Third Law of Motion -> Law of Action and Reaction

-> action and reaction forces

- 11. momentum
- 12. impulse
- 13. impulse-momentum theorem



# Science 122 Monday, May 9/16

http://mvhs.nbed.nb.ca/
http://mvhs-sherrard.weebly.com/

- 1. Check
  - Worksheet Text (C&J) Equation of Continuity and Bernoulli's Eq.
- 2. Worksheet: Bernoulli's Eqn and Equation of Continuity
- 3. Test Wednesday, May 11/16
- 4. Topic 5 Nuclear Physics
- 5. Review: Atoms and Isotopes
- 6. Radioactive Decay: Alpha, Beta and Gamma Decay
- 7. Decay Series

#### Science 122

### Topics -> Test: Fluid Mechanics

- 1. mass density
- 2. specific gravity
- 3. pressure
- 4. fluid
- 5. fluid mechanics
- 6. hydrostatics hydrostatic equation

-> hydraulic lift

ole

FB = Whe + WL - Pascal's Principle

- Archimedes' Principle

- buoyancy

- apparent weight

- fraction, % submerged Wapp - W-Fg

7. hydrodynamics - types of fluid flow: steady or streamline/unsteady compressible/incompressible

viscous/nonviscous

- mass flow rate
- Equation of Continuity
- volume flow rate
- 3 characteristics of ideal fluid flow
- Bernoulli's Equation

# Science 10 Monday, May 9/16

http://mvhs.nbed.nb.ca/

- 1. Assignment: Acceleration Problems
- 2. Review: Physics Unit Multiple Choice HW
- 3. Test Physics Unit Friday, May 13/16

## Physics 122

Monday, May 9/16

http://mvhs.nbed.nb.ca/
http://mvhs-sherrard.weebly.com/

- Experiment 10.2 Torques (Page 67)
   Experiment 9.1 Conservation of Momentum (Page 55)
   4 Days Late
- Assignment: Experiment 8.1 Kepler's Laws Page 49
   Days Late
- 3. Check -> Worksheets (Kepler's Laws, Etc.)
- 4. Unit 2 Section 3: SHM (Simple Harmonic Motion)
- 5. Review: Vibration, Amplitude, Period and Frequency
- 6. Two Requirements for SHM
- 7. Pendulums
- 8. Worksheet: Text: Page 614, PP #5-8
  Text: Page 623, PFU #28, 29 Given Not HW