Science 10
Monday, February 27/17

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1. Progress Reports

2. Assignment - Your Name in Chemical Symbols
   - Due: Monday, Feb. 20/17
   - 4 Days Late

3. Recap - Types of Ions

4. Assignment - All Ionic Compounds
   - Wednesday, March 1/17
   - Topics
   - Sample Questions

5. Worksheet #5 - Ionic Compounds Summary
   Worksheet - Lots of Ionic Naming Practice Problems

6. Covalent Bonds

7. Diatomic Molecules

8. Naming Binary Molecular Compounds

9. Worksheet - Practice: Binary Covalent Compounds

Science 10
Topics -> Assignment: All Ions and Ionic Compounds

1. a) be able to identify monatomic ions

    b) be able to write the names of monatomic ions given their
        chemical symbols and vice versa

    $Cl^- \rightarrow$ chloride ion   Sodium ion $\rightarrow Na^+$

2. be able to write the names of simple binary ionic compounds
    given their formulas and vice versa

    $NaCl \rightleftarrows$ Sodium chloride
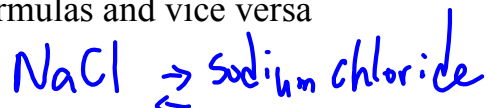
3. a) be able to identify polyatomic ions by their symbols and
        names ("ate", "ite" and some "ide" endings)

    sulfate ion   nitrite ion   hydroxide ion

    b) know where to find the names and symbols of polyatomic
        ions on the purple periodic table

    c) be able to write the names of ionic compounds containing
        polyatomic ions given their formulas and vice versa

    $NaNO_3 \rightleftarrows$ Sodium nitrate
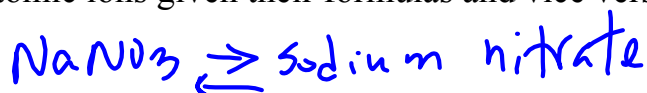
4. a) be able to identify multi-valent metals

    copper (I) $\boxed{\dfrac{Cu^{2+}}{Cu^+}}$

    b) be able to write the names of multivalent metal ions using
        roman numerals given their symbols and vice versa

    1 to 10   I $\longrightarrow$ X

    c) be able to write the names of ionic compounds containing
        multivalent metals given their formulas and vice versa

    Worksheet #4

5. be able to write the names of ionic compounds containing
    multivalent metals and polyatomic ions given their formulas
    and vice versa

    Copper (I) sulfate $\rightleftarrows Cu_2SO_4$

Assignment - All Ionic Compounds -> Sample Questions

Types of Ions

Identify each of the following as a monatomic ion (MI), a polyatomic ion (PI), or the ion of a multivalent metal (IMM), by printing MI, PI or IMM on the line provided.

a) F^- _____ MI

b) lead (II) ion _____ IMM

c) CNO- _____ PI

d) sulfite ion _____ PI

e) Pt^{2+} _____ IMM

MI	PI	IMM
	-ate	roman numeral.
	-ite	
	-ide	I, II, V
	3	

NO_3^-

Cu^{+2}
Cu^+

Chemical Formulas to Chemical Names

Name the following ionic compounds.

a) K_2S _____ potassium sulfide

b) $SnBr_4$ _____ tin (IV) bromide

c) $Zn(ClO_4)_2$ _____ zinc perchlorate

Chemical Names to Chemical Formulas

Write the chemical formulas for the following ionic compounds.

a) barium cyanide _____ $Ba^{2+}(CN)^- \rightarrow Ba(CN)_2$

b) ammonium phosphide _____ $(NH_4)_3P$

c) gold (III) chloride _____

d) magnesium borate _____ ?

Physics 112
Monday, February 27/17

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1. Directions of Velocity and Acceleration - LHP

2. SA - U1 S1
   - Today, Feb. 27/17
   - 30 minutes

3. U1 - S2 - Graphical Analysis
   - Concept Sheet

4. Position-Time Graphs - To Be Continued

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5. Position-Time Graph: Direction of Motion

6. Velocity-Time Graphs

7. Velocity-Time Graph: Direction of Motion

8. Velocity-Time Graph Calculations

9. Worksheet: Velocity-Time Graph #1

Topics: SA U1-S1

1. mechanics, kinematics and dynamics

2. two types of physical quantities:

    (i) scalar quantity - has magnitude only

                     - has units

                     - be able to name and give examples of

                       four scalar quantities

    (ii) vector quantity - has magnitude and direction

                     - has units

                     - vector notation

                     - conventional directions

                     - be able to name and give examples of

                       four vector quantities

3. arrows are used to represent vector quantities graphically

4. resultant

5. two methods used to add vector quantities:

    (i) tip-to-tail method

    (ii) parallelogram method

6. determine the range of possible resultant values

7. determine a resultant mathematically (follow rubric) *10pts.*

8. types of motion - no motion

                 - uniform motion

                 - uniformly accelerated motion

9. use directions of velocity and acceleration to describe an object's

    motion, etc (ie/ van scenario)

                Format: Multiple Choice (MC)

                     Short Answer

                     Chart (ie/ van)

                     Find $\vec{R}$ (use rubric)

30 minutes

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Physics 122
Monday, February 27/17

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1. Force Problems: Worksheets - Type I, II and III (2)

2. Formative Assessment - Force Problem III: Inclined Plane

3. SA - U1 S1 - 3 Problems (40 minutes)
   - Wednesday, March 1/17

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4. Unit 1 - Section 2 -> Torque

5. Center of Mass

6. Types of Motion - Translational and Rotational

7. Torque

8. Net Torque

9. Static Equilibrium - Revisited

Formative Assessment - Incline Problem

The block in the diagram
is at rest. The tension in the
cable is not the only force
keeping the block from sliding
down the incline. Stac fricon
is also present. If the coefficient
of stac fricon   is 0.214
determine the tension
in the rope.

$$+T + Ff - W_x = 0$$

$$T = 111 N$$
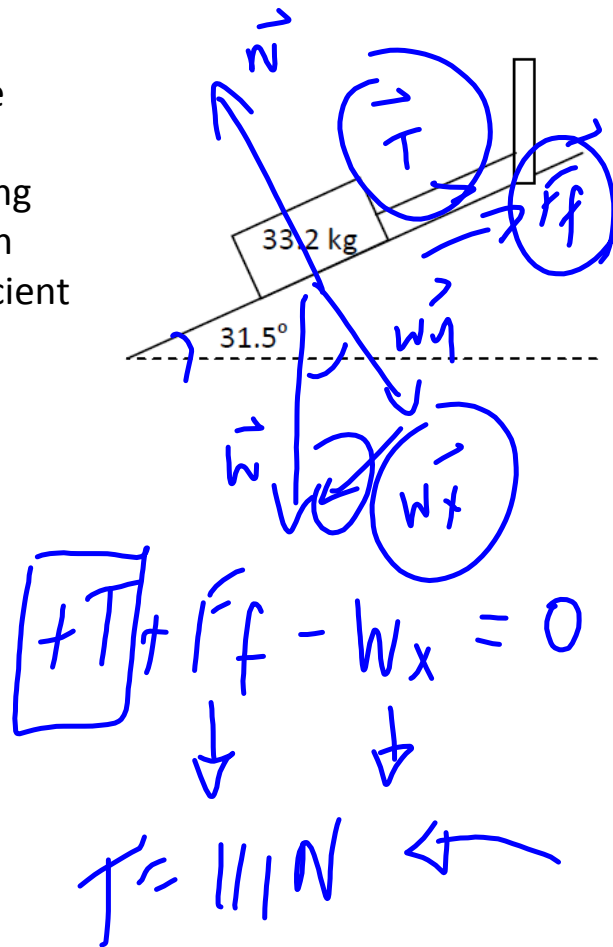
The tension is 111N, up the incline.