Physics 112

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Monday, September 10/18

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1. Return:
   Assignment - Alphabetical Autobiography
   - Due: Frid., Sept. 7/18
   - 1 Day Late Today
   - See Me by Friday, Sept. 14/18

2. Questions re Last Week's Concepts?

3. Formative Assessement (FA) - Physics to SI System of Units

4. SI Prefixes - Continue

5. Metric Conversions

6. Worksheet: Conversions and Rearranging Formulas
   HW - Try some conversions.

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7. Rearranging Equations

8. Worksheet: Conversions and Rearranging Formulas

9. Extra Practice - Metric Conversion Worksheet #1
   Worksheet: Rearranging Sheet

10. Summative Assessment - Basic Knowledge/Skills
    - Topics
    - Date: To Be Determined

Physics 112

Formative Assessment - Physics to SI System of Units

Name: _____

Date: _____

Answer the following on the lines provided.

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1. Give one example of a derived unit. _____

2. The science of measurement is called _____.

3. A measurement has two parts:
   (i) _____
   (ii) _____

4. Three darts are thrown at a target. Assume the thrower was aiming for the center of the target. Describe the accuracy and precision of the results illustrated below.

   accuracy - _____

   precision - _____

5. State the number of significant digits in each measurement.
   a) 40.5 g _____
   b) 0.20070 cm _____
   c) 8.090×10^3 kg _____

6. A physical _____ is a physical property that can be measured.

7. What is the name of the rule used to determine the correct number of significant digits of the product when multiplying measurements? _____

8. _____ is the study of matter and energy and their relationships.

9. The SI system of units is built on _____ base units.

10. The measurement 0.034 cm written in scientific notation is _____.

Topics - SA: Basics Knowledge/Skills

1. physics - definition

2. metrology - definition

3. physical quantity - definition

4. measurements - two parts

5. scientific notation

6. accuracy/precision - definitions, interpret scenario

7. percent error calculation

8. significant digits - in a given measurement
   - Precision (+ and -) & Certainty (x and ÷) Rules

9. SI system - quantities and 7 base units (names/symbols)
   - derived units

10. SI prefixes - names, symbols and powers of ten

11. metric conversions - 1 step
    - 2 steps
    - m/s ⟷ km/h

12. rearranging equations

Physics 122

Monday, September 10/18

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1. Check:
   Worksheet: Vectors - Perpendicular Components #4-6

2. FA - Perpendicular Components of a Vector
   FA - Adding Vectors Using Perpendicular Components

11:40

3. Reminders: Kinematic Equations
   Newton's Second Law

4. Force Problems Involving Components - Types I, II and III

5. Type I: Pulling or Pushing An Object - To Be Continued

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6. Worksheet: Force Problems Type I

Physics 122

Formative Assessment– Perpendicular Components (FP1.1)

Determine the perpendicular components of a force vector with a magnitude of 29 N and a direction of 47^{o} S of W.

Formative Assessment – Calculating R Using Perpendicular Components (FP1.2)

Determine the resultant of 243 km, 50.0^{o} N of E and 57.0 km, 20.0^{o} S of E.

Science 10

Monday, September 10/18

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1. Return:
   Assignment - Autobiographical Poem
   - Due: Friday, Sept. 7/18
   - 1 Day Late Today

2. Assignment - What's in a Name?
   - Due: Wednesday, Sept. 12/18

3. Formative Assessment - Chemistry to Chemical Symbols

4. Chemical Periods and Groups/Families

5. Metals, Nonmetals and Metalloids on the Periodic Table

P4

6. Characteristics of Metals and Nonmetals

7. Atomic Number - To Be Continued

P5

8. Standard Atomic Notation

9. Worksheet: Standard Atomic Notation

10. Bohr-Rutherford Diagrams

11. Worksheet: Bohr-Rutherford Diagrams

Science 10

Formative Assessment – Chemistry to Chemical Symbols

Name - _____ Date - _____

Complete each statement with a word from the box below that makes each statement true.

symbol	electron	subatomic
neutron	chemistry	element
proton	nucleus	atoms
capitalized	matter	

a) The first letter of a chemical symbol is always _____.

b) There are three particles smaller than an atom. They are called _____ particles.

c) An element is represented by a chemical _____.

d) A positively charged particle in the nucleus of an atom is called a(n) _____.

e) _____ are the building blocks of matter.

f) _____ is the study of matter.

g) The center or core of an atom is called its _____.

h) A(n) _____ is made up of atoms and cannot be chemically broken down into simpler substances.

i) A(n) _____ is found in an orbit surrounding the nucleus of an atom.

j) The neutral subatomic particle is called a(n) _____.

k) _____ is anything that takes up space and has mass.

Science 10

Formative Assessment – Chemistry to Chemical Symbols

Name - _____ Date - _____

Complete each statement with a word from the box below that makes each statement true.

symbol	electron	subatomic
neutron	chemistry	element
proton	nucleus	atoms
capitalized	matter	

a) The first letter of a chemical symbol is always capitalized.

b) There are three particles smaller than an atom. They are called subatomic particles.

c) An element is represented by a chemical symbol.

d) A positively charged particle in the nucleus of an atom is called a(n) proton

e) Atoms are the building blocks of matter.

f) Chemistry is the study of matter.

g) The center or core of an atom is called its nucleus.

h) A(n) element is made up of atoms and cannot be chemically broken down into simpler substances.

i) A(n) electron is found in an orbit surrounding the nucleus of an atom.

j) The neutral subatomic particle is called a(n) neutron.

k) Matter is anything that takes up space and has mass.

FIGURE IT OUT!

#6

Each block represents a saying or well-known phrase.
Please write your answers on the back of the page.

1 1 MORE MORE MORE MORE MORE MORE MORE MORE MORE MORE MORE	2 OPINION OPINION	3 R Y S	4 The D I A L Hospital
5 DUMP F E E L I N G DUMP	6 BENDING UOY ROF	7 IRIGHTI	8 N
9 MAY AA	10 W W A A L L K K	11 STAYING THE GAME	12 ROLE ROLE
13 AMINPM	14 WEL L	15 LOV	16 PAINS PAINS
17 LEFT OUT FIELD	18 1 1 The 1 1 block 1 1 1 1	19 EZ II	20 WAY YIELD