

## Physics 112

Friday, October 5/18

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1. SA -> U1: S1&2

2. UAM - Kinematic Equation #4 - To Be Continued

3. Worksheet - Motion Problems

$$\vec{a} = \frac{\vec{\Delta v}}{\Delta t} = \frac{\vec{v}_2 - \vec{v}_1}{t_2 - t_1}$$

$$\text{distance} = A_1 + A_2 + A_3 + \dots$$

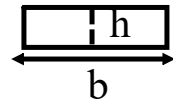
$$\text{displacement} = \pm A_1 \pm A_2 \pm A_3 \pm \dots$$

$$\text{average speed} = \frac{\text{distance}}{\text{time}}$$

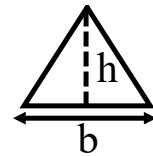
$$\text{average velocity} = \frac{\text{displacement}}{\text{time}}$$

area => distance or displacement

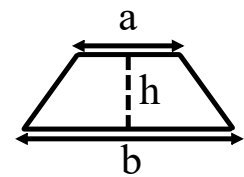
$$A = bh$$



$$A = \frac{1}{2}bh = \frac{bh}{2}$$



$$A = \frac{1}{2}(a + b)h$$



## Physics 122

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1. FA - Static Torque #1
  2. [Worksheet: Static Torque Type II - Try Some](#)

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3. FA - Static Torque #2
  4. FA - Static Torque #1 and #2

## Science 10

Friday, October 5/18

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1. Science Reading Article - Human Cyborgs vs Bionic Humans
2. FA - Molecular Compounds
3. **SA Chem #2 - Atoms to End of Compounds**
  - Topics (See Next Page)
  - Date: Wednesday, October 10/18
4. Review for SA Chem #2

5. ABC Brainstorming - Topic Chemistry

**Topics: SA - Chem #2**

H

1. atoms -> electrically neutral:  $\#p^+ = \#e^-$
2. chemical names and symbols: elements and ions
3. periodic table of the elements: location of metals, nonmetals and metalloids
4. atomic number = number of protons
5. draw a Bohr-Rutherford diagram for an atom of an element
6. ions - atoms that have gained or lost electrons
  - cations/positive ions/metallic ions
  - anions/negative ions/nonmetallic ions
  - be able to state number of protons, number of electrons and ion charges
7. draw a Bohr-Rutherford diagram for an ion of an element
8. ionic bond - created by transfer of electrons
9. be able to identify monatomic ions, polyatomic ions and ions of multivalent metals
10. ionic compounds - electrically neutral
11. be able to write the names of simple binary ionic compounds given their formulas and vice versa
12. be able to write the names of ionic compounds containing polyatomic ions given their formulas and vice versa
13. know roman numerals 1-10
14. be able to write the names of ionic compounds containing multivalent metals given their formulas and vice versa
15. be able to write the names of ionic compounds containing multivalent metals and polyatomic ions given their formulas and vice versa
16. covalent bond - created as a result of the sharing of electron pairs
17. molecular compounds = covalent compounds = molecules
18. prefixes 1-10
19. diatomic molecules:  $H_2$ ,  $N_2$ ,  $O_2$ ,  $F_2$ ,  $Cl_2$ ,  $Br_2$ ,  $I_2$
20. special molecules:  $P_4$ ,  $S_8$ , water, ammonia, hydrogen peroxide
21. be able to write the names of binary molecular compounds given their formulas and vice versa
22. identify ionic compounds and molecular compounds