# Phyz/Chem Weekly Planner: All science week of 3.9.2020

**Objectives for the week**: Chm.2.2 Analyze the structure and nature of chemical quantities. Phys 2.2 Analyze the nature of momentum and impulse.

| Day | Honors Physics | Honors Chemistry |
|---|---|---|
| Mon 3.9 | **Mid- term exam** *HW= read Ch 9 on momentum, take a picture of and TURN IN missing work! | **Mid-term exam** *HW= pg 61, read Ch 10 on moles, take a picture of and TURN IN missing work! |
| Tues 3.10 | Momentum kahoot MOMENTUM KAHOOT CHALLENGE!!! Notes: Momentum Practice: *HW= packet pgs 2,3 and 4. SHOW WORK and UNITS! | LAB: How many moles do you have? $C_{12}H_{22}O_{11}$= 10.3 g, NaCl= 20 g, $NaHCO_3$ = 12.9 g, Fe = 8 g, $H_2O$= 18.44 g, $C_6H_{10}O_5$ = 37 g, SiO2 = 39.5 g 22.2 grams of vinegar. *HW= finish lab calculations. |
| Wed 3.11 | GO over pgs 2-4 (answers were given) Momentum problems *HW= pg 5,6, 7 and 8!! Show work or explain on that paper! Warm up. | Turn in Lab Go over page 61 NOTES: equations and moles *HW= Finish entire packet except hydrates. |
| Thurs | QUIZ- momentum https://www.physicsclassroom.com/Physics- | Quiz- mole calculations |

| | | |
|---|---|---|
| *3.12* | Interactives/Momentum-and-Collisions/Egg-Drop/Egg-Drop-Interactive<br>NAME your EGG!!<br>-Egg drop lab Planning stage<br>*HW= finish ALL warm ups for this week!! Quiz corrections, Study for test. | **LAB 2 more hydrates:**<br>**Chasity: Beaker + anhydrate= 56.45 g**<br>**Heaven: Beaker + anhydrate= 54.21 g**<br>**Mikael: Beaker + anhydrate= 51.82 g**<br>***HW= finish lab, finish ALL of packet!, finish quiz corrections.** |
| *Friday 3.13* | TEST: momentum<br>*HW= Read and take notes on the following:<br>Potential-Energy<br>Kinetic-Energy | **TEST Ch 10**<br>***HW= read Ch 11 and take NOTES!**<br>**chap11.CHEMISTRY** |

# Chem

https://www.flippity.net/rp.asp?k=11g1RyW9o--73dJLCQP676DNvTyf8gRrhHwepdxl_yiU

# PHYS

https://www.flippity.net/rp.asp?k=1hrW3RJgPDIk1mGPZyKP10koTQWO07kmaYUYJhv732Jo

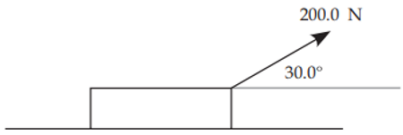
| Common Name | Chemical Name | Hydrate | Anhydrous Salt |
|---|---|---|---|
| Washing Soda | Sodium carbonate | $Na_2CO_3 \cdot H_2O$ | $Na_2CO_3$ |
| Gypsum | Calcium sulfate | $CaSO_4 \cdot H_2O$ | $CaSO_4$ |
| Epson Salt | Magnesium sulfate | $MgSO_4 \cdot 7H_2O$ | $MgSO_4$ |

# Warm up activities!

## Monday 3.9.20-

https://evansccca.weebly.com/

**PHYZ Warm up: TURN OFF cell phone and put in the bin** ☺

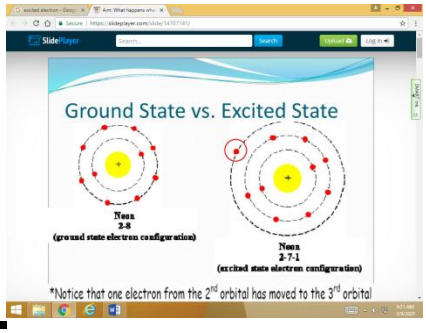



What is $F_y$ from the pull? If the box is 50 Kg, what is the weight?

**CHEM Warm up:**
**Turn OFF your cell phone and put in bin** ☺

1) What is the formula and charge of a chlorate polyatomic ion?
2) What is an excited electron?

$(ClO_3)^-$



# Tuesday 3.10.20-

https://evansccca.weebly.com/

| PHYZ Warm up: TURN OFF cell phone and put in the bin ☺ | CHEM Warm up: Turn OFF your cell phone and put in bin ☺ |
|---|---|
| Draw an inclined plane and describe all the forces on a box that sits on it. Does it have to be moving to have friction? | What is the mass of 3.5 moles of potassium sulfate? |

# Wednesday 3.11.20-

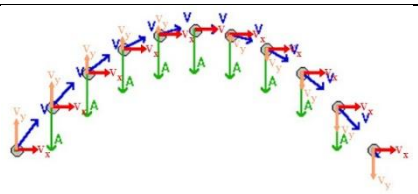
https://evansccca.weebly.com/

| PHYZ Warm up: TURN OFF cell phone and put in the bin ☺ | CHEM Warm up: Turn OFF your cell phone and put in bin ☺ |
|---|---|
| Child +sled mass= 80.0 Kg and $\mu_k$= 0.2<br>  <br>What is $F_{pull\ NET}$ to make the cart go at a constant velocity? | 1.If you have 2.5 moles of Magnesium metal, how many moles of pure magnesium oxide can you get out of heating it?<br><br>2.How many formula units of MgO? |

# Thursday 3.12.20-

https://evansccca.weebly.com/

| PHYZ Warm up: TURN OFF cell phone and put in the bin ☺ | CHEM Warm up: Turn OFF your cell phone and put in bin ☺ |
|---|---|
| Draw a motion dot diagram of a punted football. Include $V_x$ and $V_y$ vectors for each dot. | Epsom salt is a hydrate with the formula $MgSO_4 \cdot 7H_2O$<br>What is the % water in |

| | |
|---|---|
|  | this hydrate by mass? |

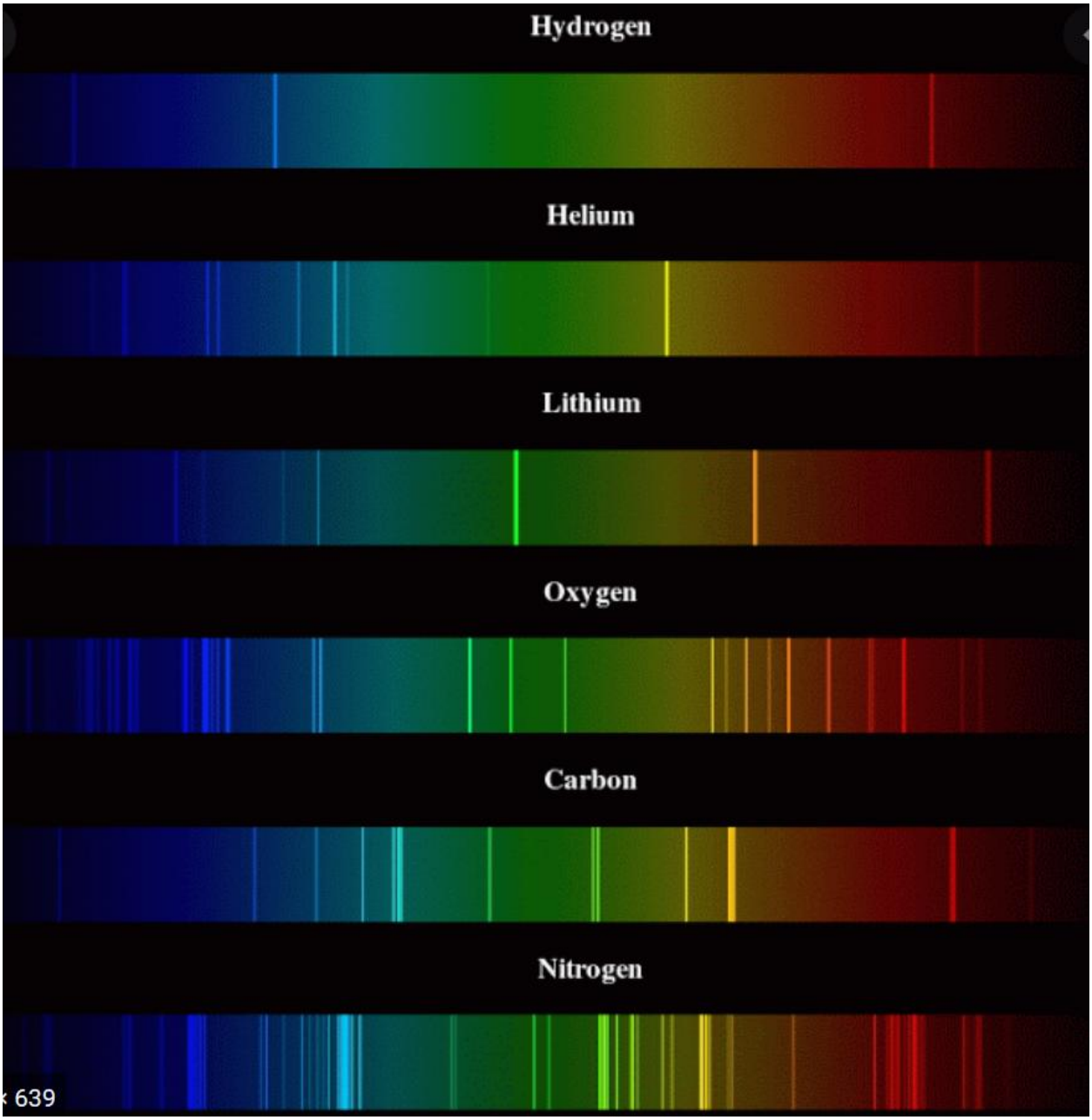
# Friday 3.13.20-

https://evansccca.weebly.com/

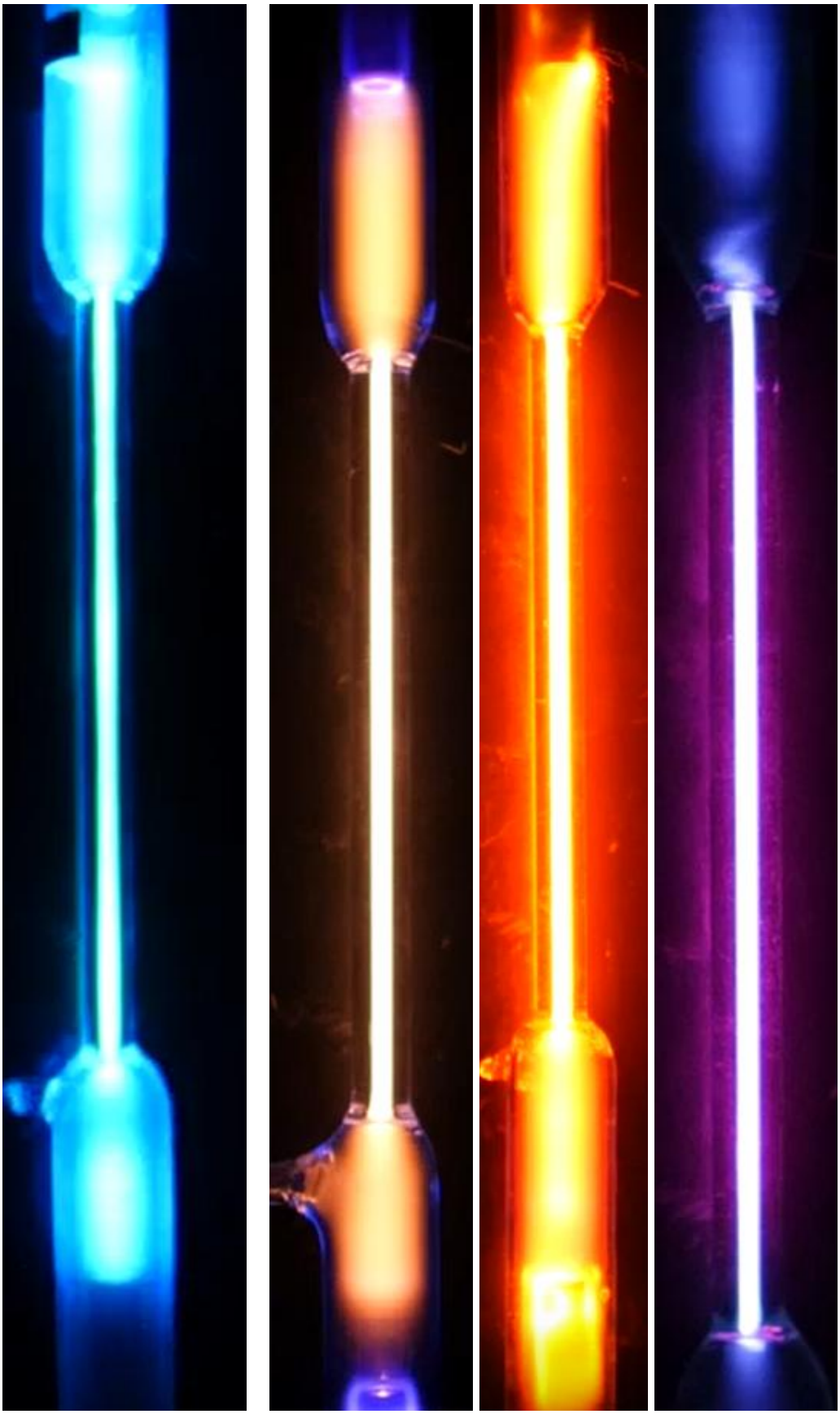
| | |
|---|---|
| **PHYZ Warm up: TURN OFF cell phone and put in the bin** ☺<br><br>Quiz corrections!!! | **CHEM Warm up:**<br>**Turn OFF your cell phone and put in bin** ☺<br>QUIZ corrections..<br>1) Copper II = $Cu^{2+}$<br>Sulfate = polyatomic ion= $SO_4^{2-}$<br>formula balances out charge so: $CuSO_4$ is 65,45g +32 g, + 4(16 g) = 159.61 g/mol.<br>7) $H_2CO_3 \rightarrow CO_2 + H_2O$<br>-letter F on pg. |

- **Converting from mass (grams) to moles:** Divide your initial mass by the molar mass of the compound as determined by the periodic table.
- **Converting from moles to mass (grams):** Multiply your initial mole value by the molar mass of the compound as determined by the periodic table.
- **Converting from volume (liters) to moles:** Divide your initial volume by the molar volume constant, 22.4 L.
- **Converting from moles to volume (liters):** Multiply your mole value by the molar volume constant, 22.4L.
- **Converting from particles (atoms, molecules, or formula units) to moles:** Divide your particle value by Avogadro's number, $6.02\times10^{23}$. Remember to use parentheses on your calculator!
- **Converting from moles to particles (atoms, molecules, or formula units):** Multiply your mole value by Avogadro's number, $6.02\times10^{23}$.
- **Mole-to-mole conversions:** Use the coefficients from your balanced equation to determine your conversion factor. Be sure your units cancel out so you end up with the correct mole value.

SPECTROSCOPE: https://www.youtube.com/watch?v=oae5fa-f0S0




Mercury, Nitrogen, Neon, Hydrogen, :



CONGRATULATIONS!  You have been selected for an egg citing mission!

You and your team will have 15 minutes to look at the contents of your bag, design a contraption that will help an egg survive a pretty big fall, AND to make this contraption for launch.

Once time is called, you MUST put your contraption in the loading area (or else your team score is ZERO).

Here is the rubric:

| **Criteria** | **MAX score** |
|---|---|
| Creativity and Egg name | 20 |
| Teamwork | 20 |
| Contraption hits the landing pad | 20 |
| Egg survives with no cracks at all | 20 |
| Egg survives (no yoke comes out) | 20 |