IMPORTANT CHEMISTRY UPDATE!!! **IF you completed all the practices**, Yes- I can see your atomic structure quiz even though it won't let you submit it!! Continue to get your best grade and I will apply the highest for you ☺

SCIENCE PLANNER: WEEK OF 8.26.19

OBJECTIVES FOR THE WEEK:

Biology : What are we made of? Bio.1.2.1 Explain how homeostasis is maintained in the cell and within an organism in various environments (including temperature and pH). Bio.3.1.1 Explain the double-stranded, complementary nature of DNA as related to its function in the cell.

Chemistry: What are atoms made of? Chm.1.1.1 Analyze the structure of atoms, isotopes, and ions.

DAILY AGENDA – (SUBJECT TO CHANGE) https://evansccca.weebly.com/

DAY	Honors Biology	Honors Chemistry
Mon 8.26 Dayton 100% Terron 100%	-Warm up Carbohydrate minilab? -Notes: Biomolecules *HW= Cell membrane, on back, prepare for presentation on monosaccharides!	-Warm up Combustion minilab -Notes: Atomic Theory and Structure *HW= 1)CK12 atomic theory due Tues! *2) Due Tues AM= MAKE NOTES for yourself on pages 1, 2 &3 *3)LOOK up sulfuric acid and sucrose formulas!!!
Tues	-Warm up flipgrid.com/evansccca	-Warm up- Sulfuric acid and sugar NOTES: LDP:

8.27	HW= *Grade everyone (1-3 points per category). TEST CORRECTIONS DUE TOMORROW!!	-Molar mass, % comp. *HW= % percent Comp #1-8 SAWAU, Finish CK12, Test corrections DUE Thursday at the end of class.
Wed 8.28	WARM UP: community Minilab: Apples have enzymes… let's mess them up! FiNISH ALL NOTES!! *HW= Compete ENTIRE notes packet, DO Wednesday's warm up, STUDY for test!	Warm up: Emperical formula Finish Emperical and molecular formulas, FINISH ALL NOTES! *HW= 1)Test corrections due Thurs during class. 2) CK12 atomic structure due Thurs night!3) % comp, Emprirical formula and Molecula formula due tomorrow before class!!
Thurs 8.29	Warm up- Bacteria lab! ENZYME LAB! -Review *HW= finish lab! REVIEW FOR TEST!	Warm up- Cl isotopes -Review *HW= Avg. atomic mass, atomic structure, CK12 due tonight!
Fri 8.30	BENCHMARK TEST! NASA ISS interview?	BENCHMARK TEST! NASA ISS interview?

https://www.youtube.com/watch?v=6tfoCgQuqcw HOW to get into flipgrid

2	https://www.flippity.net/rp.asp?k=13v4i43mVC6nlusN9R6pgYpkWe6j6-kMPQECTvZm-hKw

WARM UP ACTIVITIES

MON	**Bio- Draw and label the three monomers of sugar (aka monosaccharides).** **Chem-** $C_6H_{10}O_5$ is the chemical formula for the polysaccharide, **cellulose**. Explain a combustion reaction to a biology student.
TUES	**Bio-Describe your results from trying to dissolve Starch (a carbohydrate) in cool water.** **Chem- write an equation for sulfuric acid combining with oxygen gas and sugar.** $2C_{12}H_{22}O_{11\ (s)} + 2H_2SO_{4\ (aq)} + O_{2\ (g)} \rightarrow 22C_{(s)} + 2CO_{2\ (g)} + 24\ H_2O_{(g)} + 2SO_{2\ (g)}$ + HEAT FIRE EXTINGUISHER EQUATION: $NaHCO_3 \rightarrow Na_2CO_3 + CO_2 + H_2O$
WED	**Bio-How is a community different from a population?** **A compund is 27.27% C and the rest is Oxygen. What is the empirical formula?**
THU	**What did you decide to "infect" your bread with, why? AND what do you think the result will be?**

	CHEM- *There are two common isotopes of chlorine. Calculate the average relative atomic mass of chlorine atoms* 		Protons	Neutrons	%
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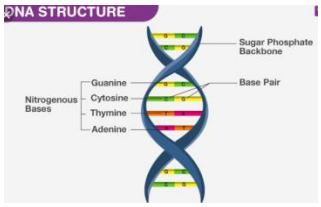
$^{35}_{17}Cl$	17	18	75
$^{37}_{17}Cl$	17	20	25 | Naturally occurring silicon consists of three isotopes with the following isotopic masses and abundances: | Isotope	Isotopic mass	Abundance (%)
---	---	---
^{28}Si	27.9769265327	92.2297
^{29}Si	28.97649472	4.6832
^{30}Si	29.97377022	3.0872	 Calculate the average atomic mass of naturally occurring silicon to at least four significant figures. Number 29.97684 amu
FRI	**If in any organism a DNA molecule is 32% cytosine, how much adenine will that DNA molecule contain?** **Describe a black hole in space.** **https://www.youtube.com/watch?v=S_ZaiAbl8xs**



STARCH

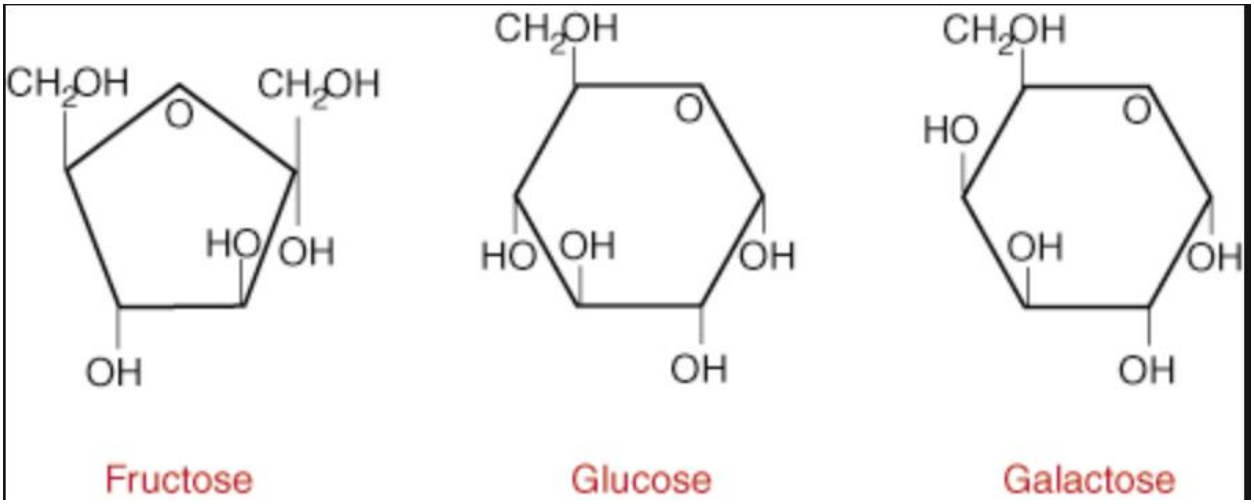
Starch is a long (100's) polymer of glucose molecules, where all the glucose molecules are orientated in the same direction.

Starch is produced by plants and is used to store energy in its numerous carbon-hydrogen bonds.

Starch is one of the primary sources of energy for humans as it can be broken down by the amylase enzyme into the individual glucose units.

Starch is insoluble in water

AMYLOSE IS A STARCH!



4 points automatically for just posting a video with your name!

WRITE BIG
3 MONOMERS AND THEIR STRUCTURE
5 CARBON RINGS!
SUGARS END WITH -OSE
OXYGEN ABD HYDROGEN BONDED OFF TO THE SIDES..
RATIO OF 1:2:1 (C:H:O)
HOW POLYMERS ARE MADE.

Grading levels-

1 point= said the word/information

2 points= explained the word/information with diagram/written info

3 points= Sounded as good as/better than the teacher while explaining the concept AND gave extra, related information with the diagram/written information!

*NEED 6 THANK YOU PICS AND AN IMPACT LETTER.

raw potato slices and hydrogen peroxide in a plastic bag, exothermic match in jar, law of consv of mass

C. Decomposition produced CO_2 and H_2O. NaHCO3

18. **What is the molecular formula of a compound whose molar mass is 88.0 and whose percent composition is 54.5% carbon, 9.1% hydrogen, and 36.4% oxygen?**

A. C_2H_4O
B. $C_3H_4O_3$
C. $C_4H_8O_2$
D. $C_5H_{12}O$

19. **A compound is analyzed and determined to be 54.5% carbon, 9.1% hydrogen, and 36.1% oxygen. What is the empirical formula of the compound?**

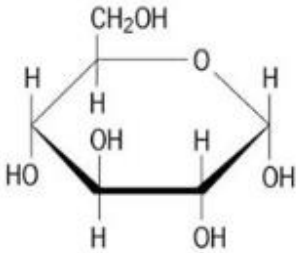
Calculate the percent composition of ammonium nitrate, .

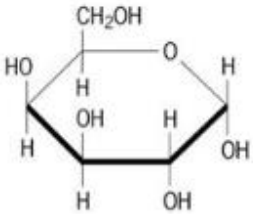
Carbon and oxygen can combine to form carbon dioxide (CO). What is the molar mass of
carbon dioxide?

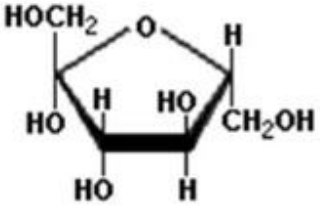
31. The element lanthanum has an isotope with an atomic mass of 138.9 amu and an abundance
of 99.91%. A second isotope has an atomic mass of 137.9 amu and an abundance of 0.09%.
What is the average atomic mass of lanthanum?

THE 4 FORCES!!! (strong force).

- Glucose
- Galactose
- Fructose







-WRITE BIG

-COMBUSTION REACTION (REACTANTS, PRODUCTS)

-DIATOMIC

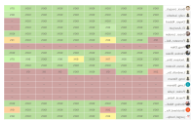
-EXOTHERMIC VS. ENDOTHERMIC

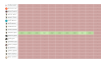
-LAW OF CONSERVATION OF MASS

-COEFFICIENTS VS. SUBSCRIPTS

-HOW TO BALANCE AN EQUATION

EARLY ATOMIC THEORY: 8/28/19 7AM





1) **5 of each:**

5 distilled water, (H_2O)

5 hydrogen peroxide (H_2O_2)

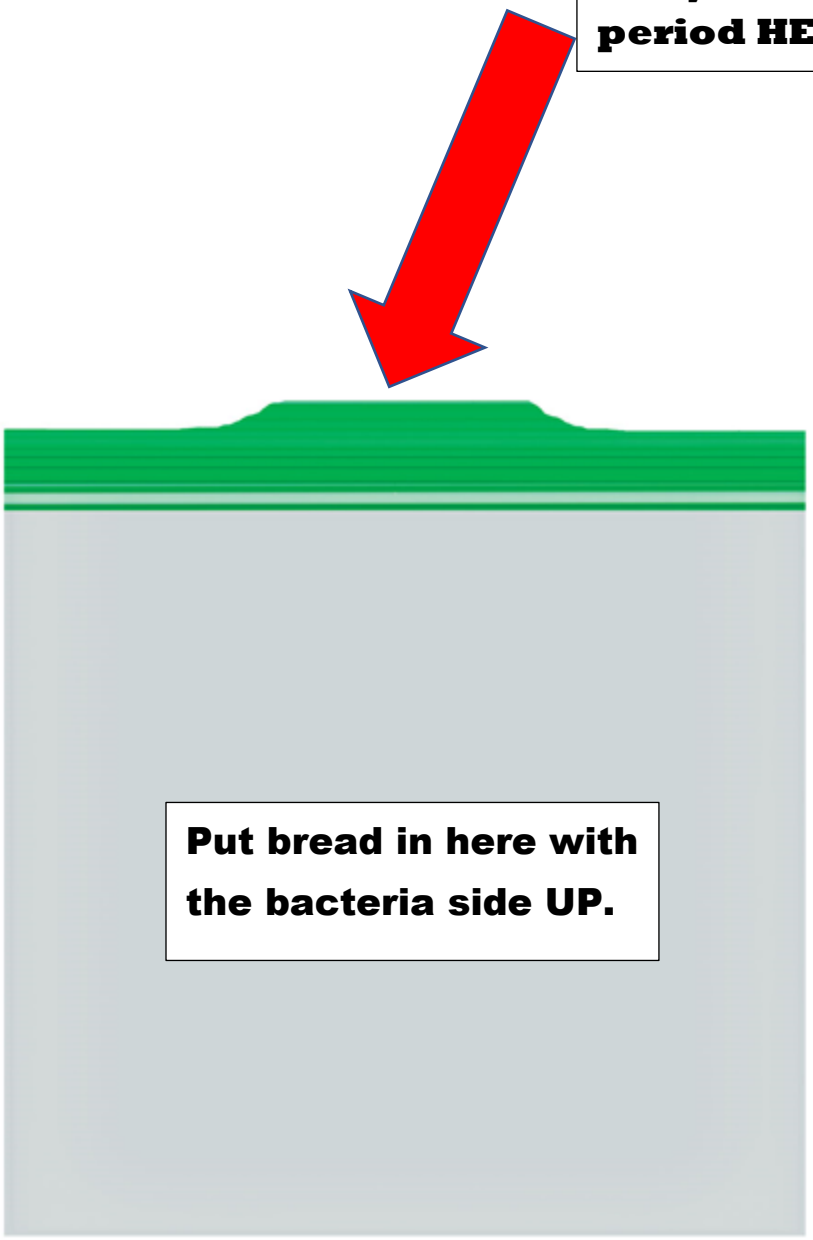
5 acetic acid, (CH_3COOH)

5 LARGE trash cup

5 Labeled Plates: 1: beef liver 2: chicken liver 3: apple 4: potato

Ms. Evans will make the cut up livers and the hot bath AND the ice bath

Put your initials and class period HERE in PEN.



Put bread in here with the bacteria side UP.