

Day 6 - Biology - 8-22-24 to 8-23-24

CLASSWORK – Chemistry of Life

Periodic Table of the Elements

Color Code

- Metal
- Metalloid
- Nonmetal
- Solid
- Liquid
- Gas

Atomic number: 1
Symbol: H
Name: hydrogen
Atomic mass: 1.008

	Bond type	Molecular shape	Molecular type
Water	<p>Polar covalent</p>	<p>Bent</p>	Polar
Methane	<p>Nonpolar covalent</p>	<p>Tetrahedral</p>	Nonpolar
Carbon dioxide	<p>Polar covalent</p>	<p>Linear</p>	Nonpolar

1) VIDEOS NOTES: The Chemistry of Life

(Take notes while you watch video.)

a) The Periodic Table-Professor Dave: (7:53)

<https://www.youtube.com/watch?v=hePb00CqvP0&t=120s&pp=ygUPcGVyaW9kaWMgdHJlbnRz>

b) Atomic & Ionic Radii: (17:21)

<https://www.youtube.com/watch?v=0tP6bV89log&t=83s&pp=ygUPcGVyaW9kaWMgdHJlbnRz>

c) Electronegativity-Organic Chemistry Tutor: (11:42)

<https://www.youtube.com/watch?v=0tP6bV89log&t=83s&pp=ygUPcGVyaW9kaWMgdHJlbnRz>

d) Periodicity-Bozeman: (8:47)

<https://www.youtube.com/watch?v=0tP6bV89log&t=83s&pp=ygUPcGVyaW9kaWMgdHJlbnRz>

e) Periodic Trends-Atomic Radius-Ysci (3:46)

<https://www.youtube.com/watch?v=iEiClj85-E>

2) EXPLAIN/DRAW:

Take a sheet of blank paper, fold in half hamburger to form (2) boxes. Fold in the opposite direction to form (4) total boxes. Explain, illustrate, and label drawings.

FRONT (4 boxes)

1) Compare protons, neutrons, and electrons.

<https://opentextbc.ca/geology/chapter/2-1-electrons-protons-neutrons-and-atoms/#:~:text=As%20summarized%20in%20Table%202.1,positive%20charge%20of%20one%20proton.>

2) Compare the concepts of Atomic Number Atomic Mass, and Mass Number

<https://www.thoughtco.com/atomic-mass-and-mass-number-606105#:~:text=Be%20careful%20you%20don't,key%20to%20the%20element's%20identity.>

3) Explain the concepts: Periodic Table, Groups, Periods, Families?

<https://chemistrytalk.org/how-to-read-the-periodic-table/#:~:text=Groups%3A%20The%20vertical%20column%20of,electrons%20and%20therefore%20similar%20properties.>

4) What happens when you move one step from left-to-right on the Periodic Table: Example: From Potassium(K) to Calcium (C) ?

https://en.wikipedia.org/wiki/Periodic_trends#:~:text=The%20atomic%20number%20increases%20within,addition%20of%20a%20new%20shell.

BACK (4 boxes)

5) What happens when you move one step from top-to-bottom on the Periodic Table: Example: From Hydrogen(H) to Lithium(Li) ?

https://en.wikipedia.org/wiki/Periodic_trends#:~:text=The%20atomic%20number%20increases%20within,addition%20of%20a%20new%20shell.

6) What role do Neutrons play in maintaining the stability of the atom's nucleus?

<https://byjus.com/question-answer/what-is-the-function-of-the-neutrons-in-the-nucleus/>

7) Compare the concepts of Electronegativity and Ionization Energy.

<https://www.ck12.org/flexi/chemistry/periodic-trends-ionization-energy/what-is-the-difference-between-electronegativity-and-ionization-energy/>

8) What are the (4) Periodic Trends that explain the relationship between elements on the Periodic Table?

<https://www.acs.org/content/dam/acsorg/education/students/highschool/chemistryclubs/infographics/mastering-periodic-trends-infographic.pdf>

The first draft of the Explain/Draw due on Schoology by the end of the class.

3) HOMEWORK

1) Finish the **Video Notes**.

2) Complete the **Explain/Draw**.

Submit your assignment on Schoology as soon as completed.