Welcome! Please grab your ISN and have a seat!
Please finish the research assignment in your Google classroom for the Do Now

Sep 21-11:16 AM

WWK

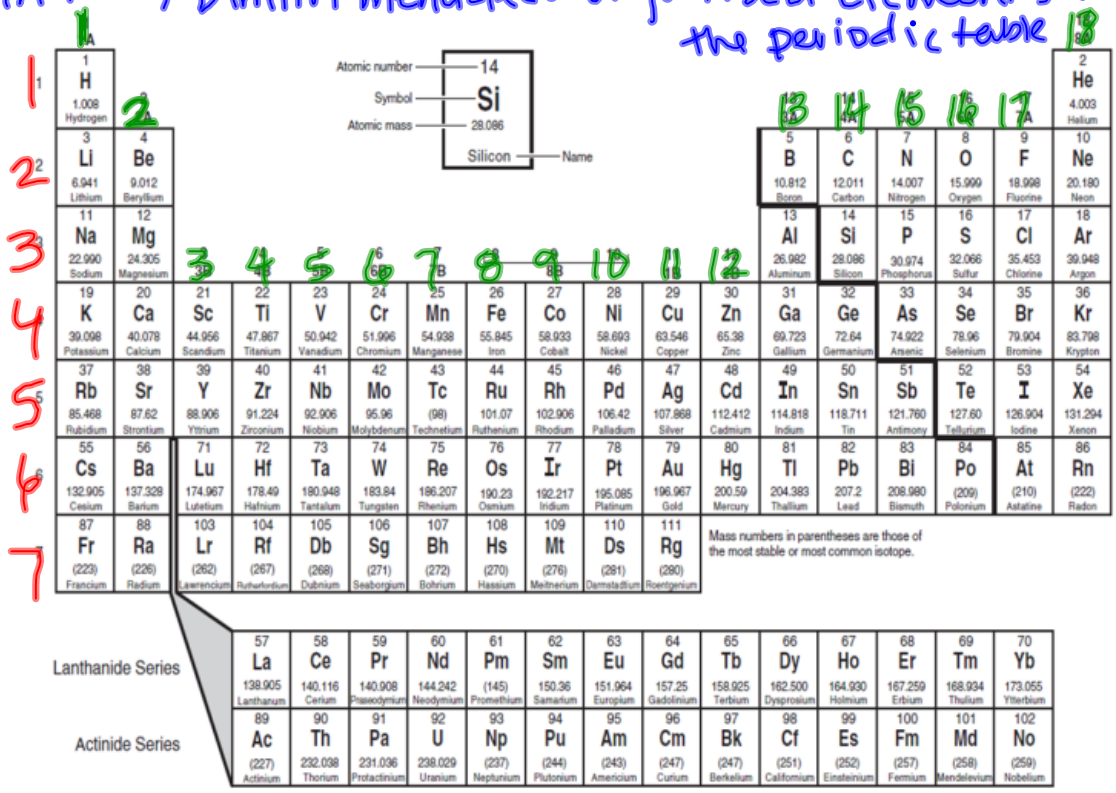
groups- (families) columns in the periodic table — every element in the same group has the same number of valence electrons.

periods- rows in the periodic table- every element in the same row has the same # electron energy shells.

Sep 21-7:46 AM

TOC pg 39-40 Periodic Table

*In 1869, Dimitri Mendeleev organized elements into the periodic table



Sep 21-8:00 AM

Groups

- also called families
- 18 total groups
- elements in the same group have the same # valence electrons

Sep 21-11:15 AM

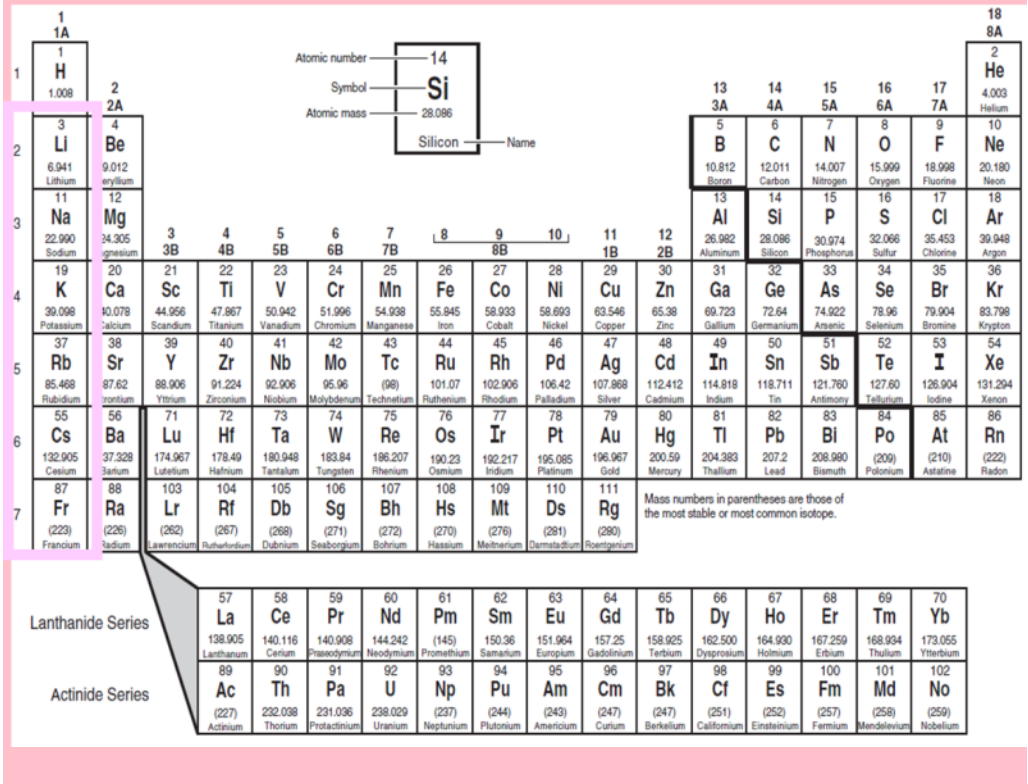
Periods

- rows in table
- 7 total periods
- elements in the same period have the same # electron shells

Sep 21-11:15 AM

Alkali Metals

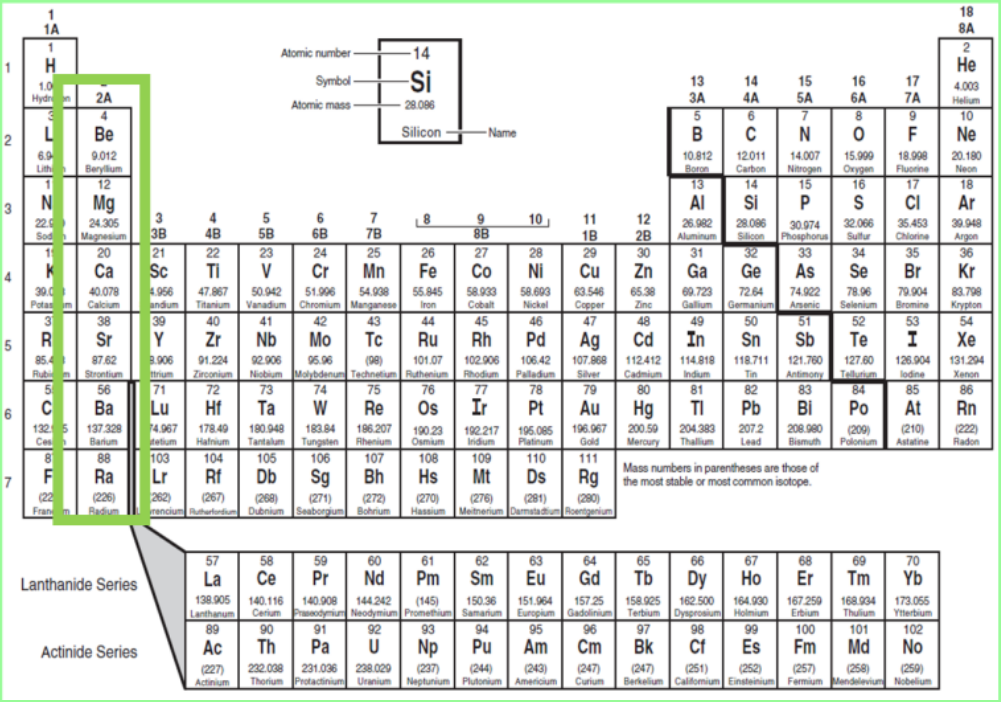
- Color the Alkali Metals Pink



Sep 21-7:43 AM

Alkaline Earth Metals

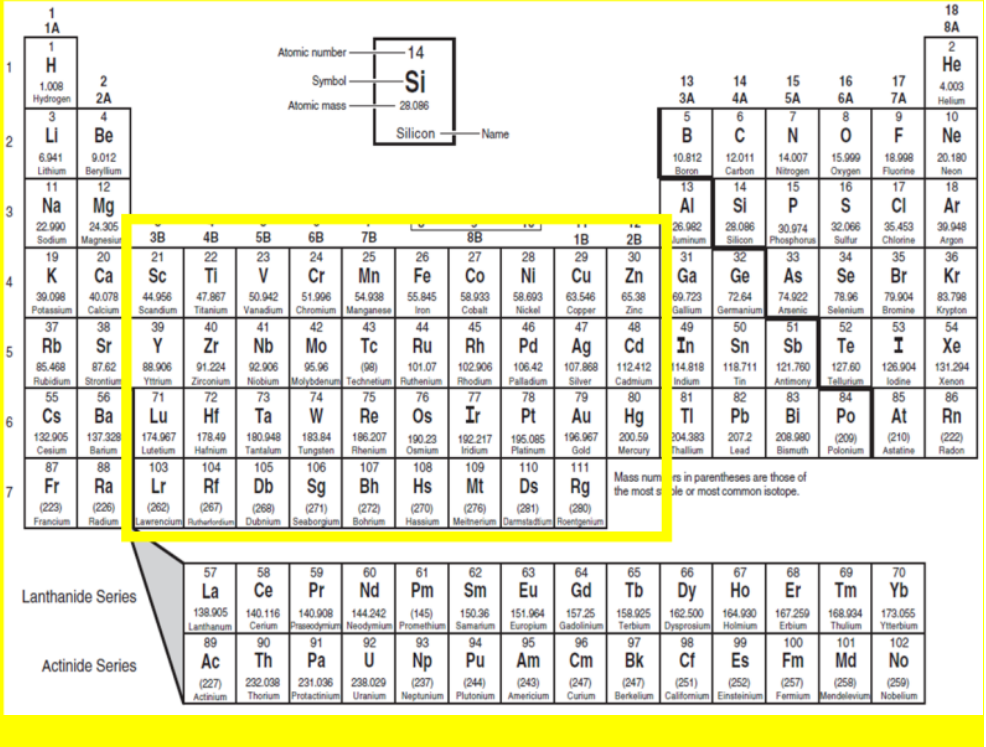
- Color the Alkaline Earth Metals lime green.



Sep 21-8:08 AM

TRANSITION METALS

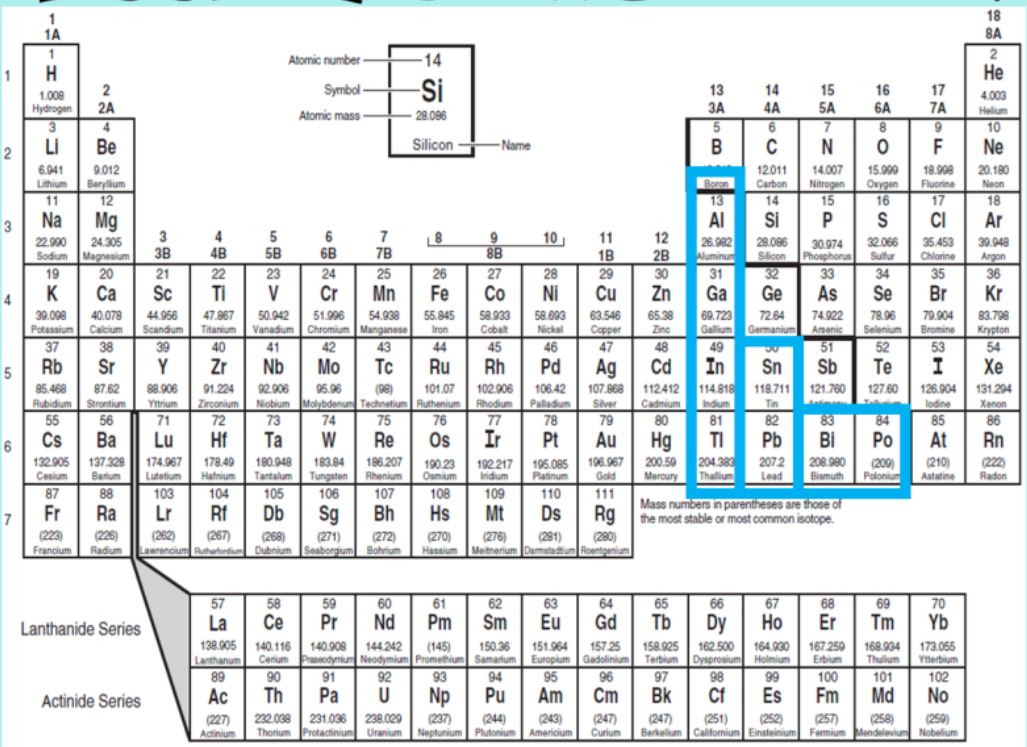
- Color the Transition Metals YELLOW.



Sep 21-8:10 AM

Poor Metals

• Color the poor metals light blue.



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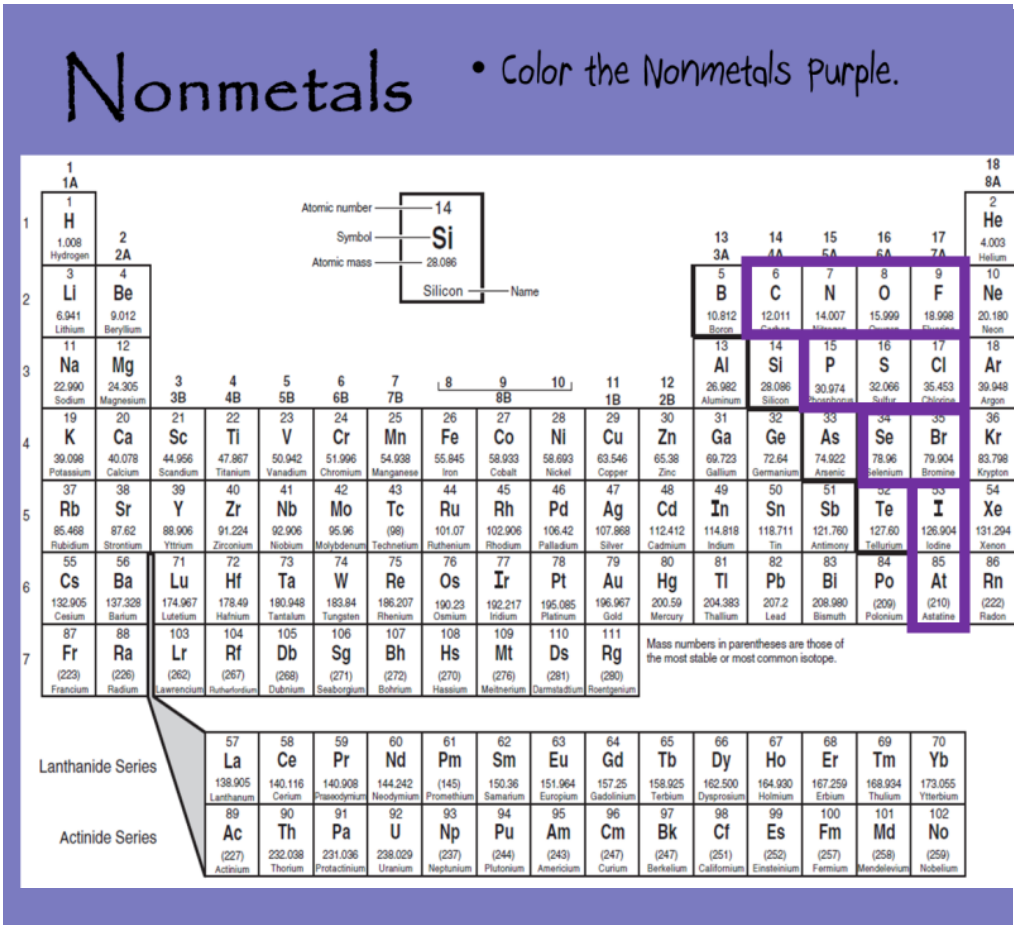
Nonmetals

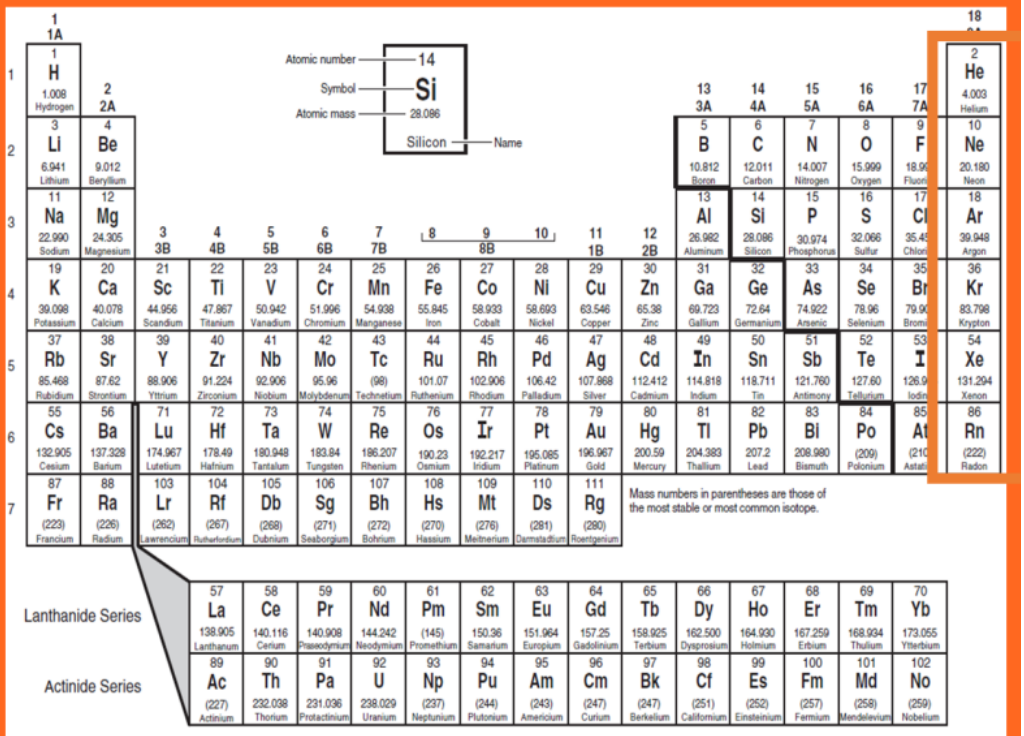
• Color the Nonmetals purple.



Sep 21-8:11 AM

Noble Gases

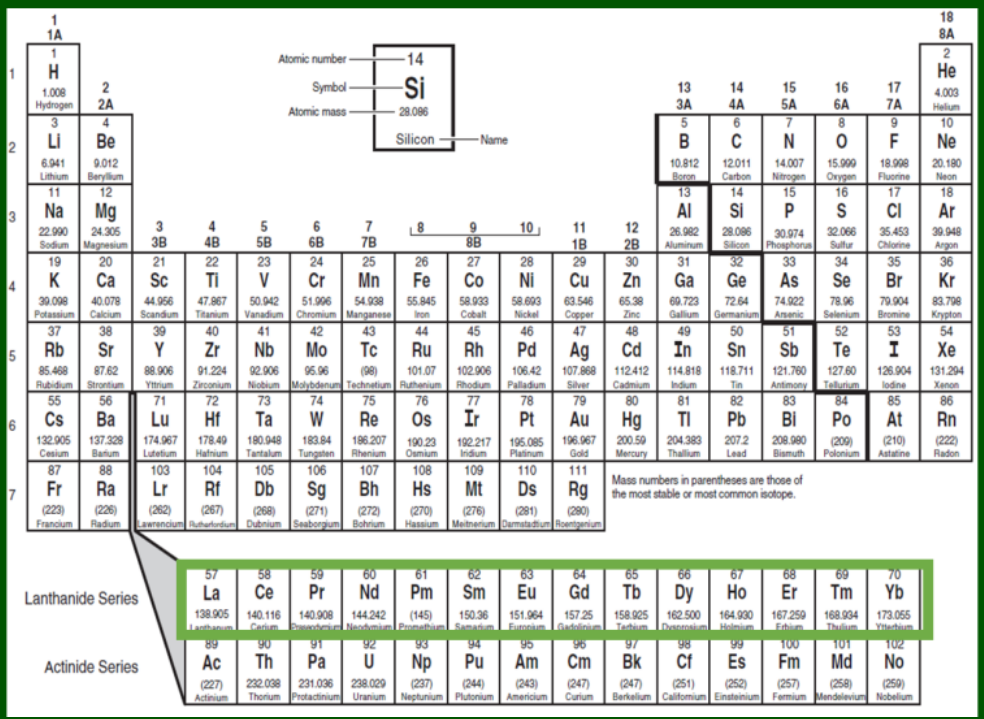
- Color the Noble Gases Orange.



Sep 21-8:12 AM

Lanthanides

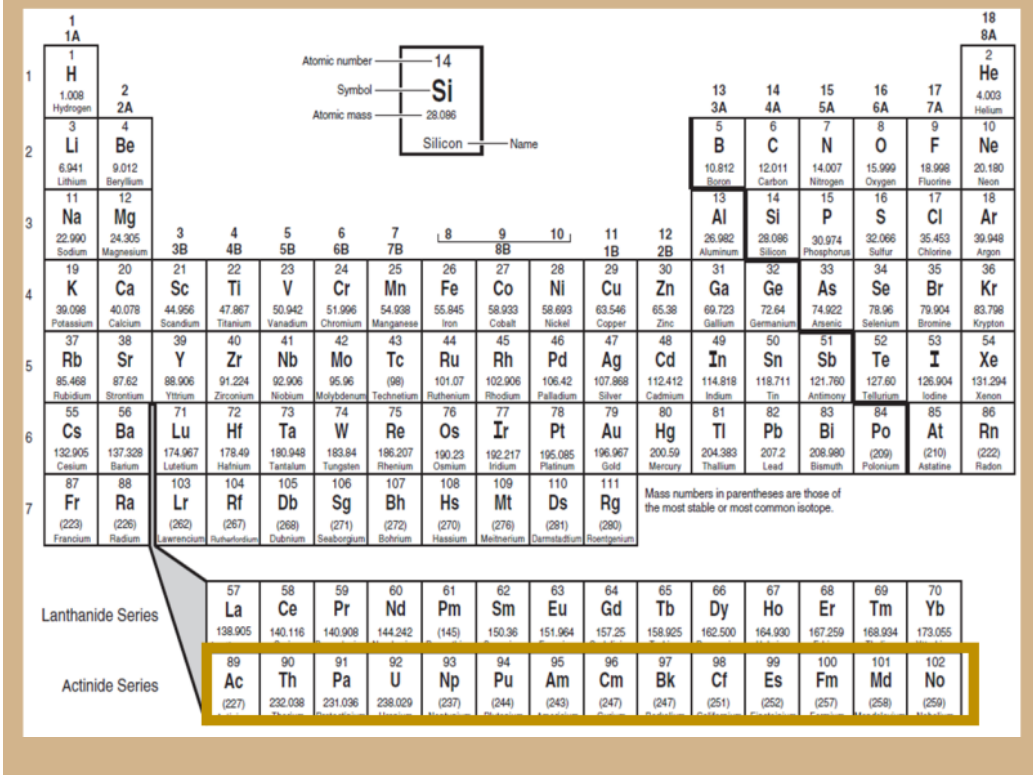
- Color the Lanthanides DARK GREEN.



Sep 21-8:13 AM

Actinides

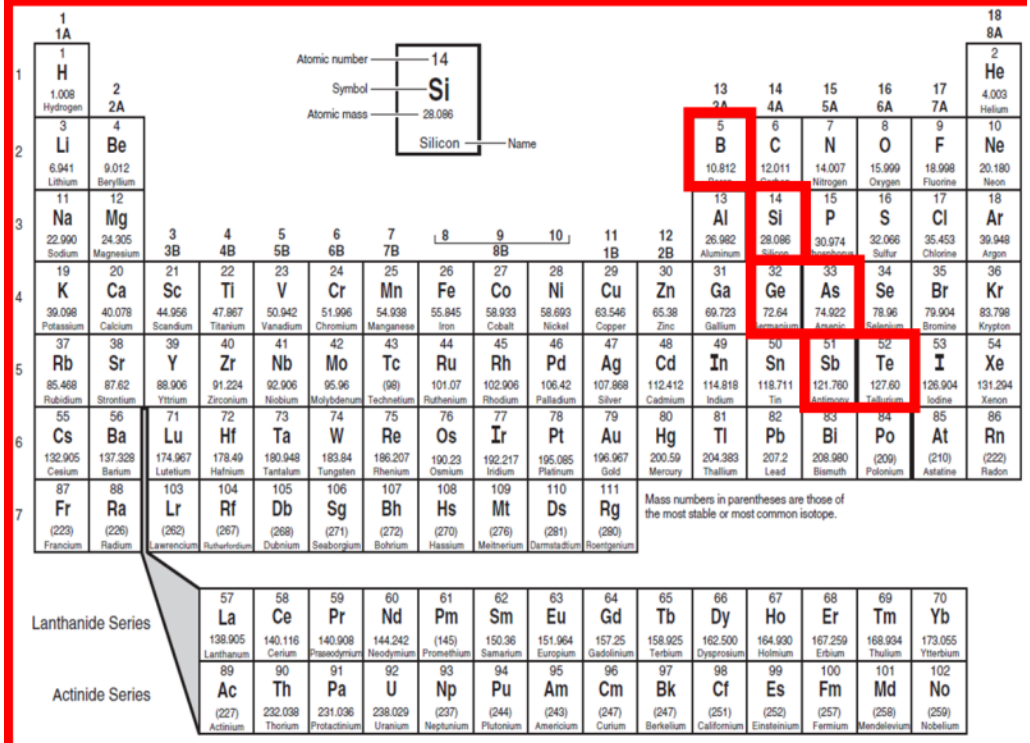
- Color the Actinides Brown



Sep 21-8:14 AM

Metalloids

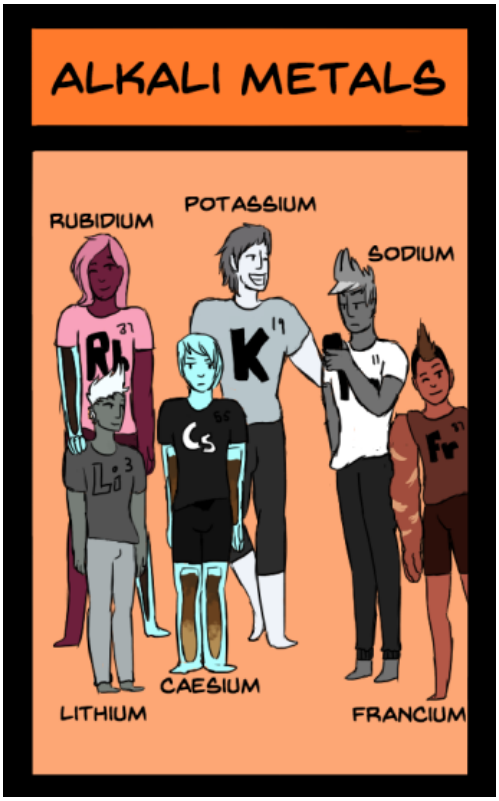
- Color the Metalloids Red.



Sep 21-8:14 AM

Alkali Metals

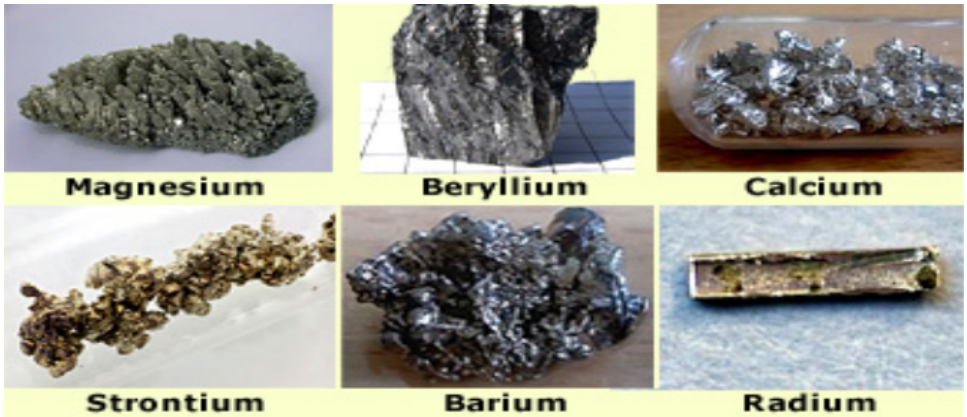
- Group 1.
- Does not include hydrogen
- Most reactive of all the metals.
- Good conductors of heat & electricity
- 1 Valence Electron.



Sep 21-8:15 AM

Alkaline Earth Metals

- Group 2
- They are never found uncombined in nature.
- 2 valence electrons.
- Not as reactive as Alkali Metals.



Sep 21-10:25 AM

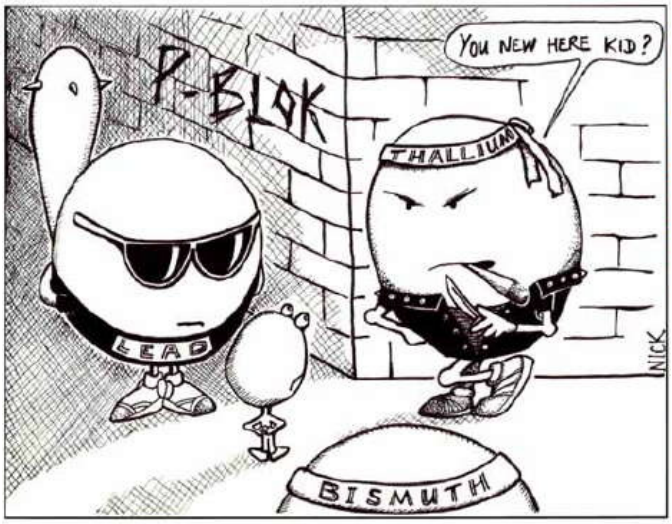
Transition Metals

- Good conductors of heat & electricity
- Have 1 or 2 valence electrons.

Sep 21-10:28 AM

POOR METALS

- softer than transition metals.
- melting and boiling points are lower than transition metals.



Unwittingly, and against his mother's advice, Vince the first-row Transition Metal had been lured far away from home, and now found himself surrounded by heavier elements of the P-Block.

Sep 21-10:30 AM

Nonmetals

- Poor conductors of heat & electricity.
- Not ductile or malleable (texture)
- Brittle and dull (luster)
- Many non-metals are gas at room temperature.

Sep 21-10:32 AM

NOBLE GASES

- Colorless gases that are extremely inactive
- Inactive- because they are stable
- 8 valence electrons (except Helium, which has 2)

Sep 21-10:34 AM

Lanthanides and Actinides

- The 30 rare Earth elements.
- Most elements are synthetic, or man made.
- Any element whose atomic number is higher than 93 is synthetic or man-made
- Any element whose atomic number is higher than 84 is radioactive (think rock song by Imagine Dragons)

Sep 21-10:44 AM

METALLOIDS

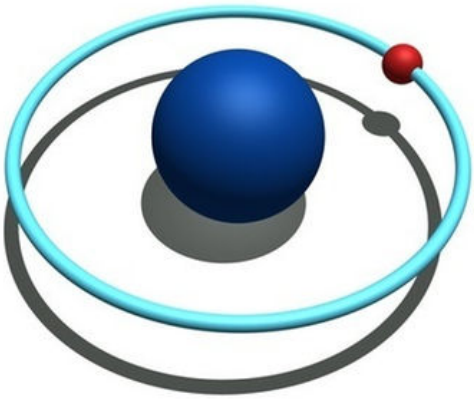
- Have properties of both metals and nonmetals.
- They are solids that can be shiny or dull (luster).
- They conduct heat & electricity better than nonmetals but not as well as metals.

Sep 21-10:54 AM

Hydrogen

~ it's a hard knock life...

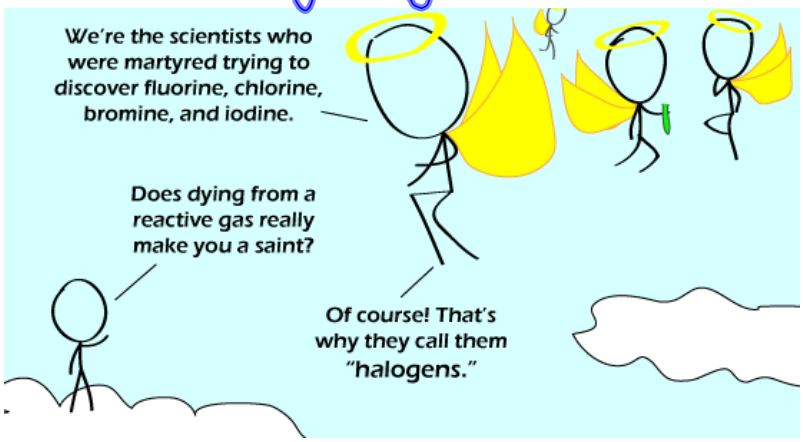
- It's a gas at room temperature.
- It has one proton and one electron, but no neutrons.
- Hydrogen belongs to NO family. ← ORPHAN!



Sep 21-10:57 AM

Halogens

- **group** 17
- 7 **valence electrons**
- highly **reactive**
- **combines with** hydrogen **to produce acids.**



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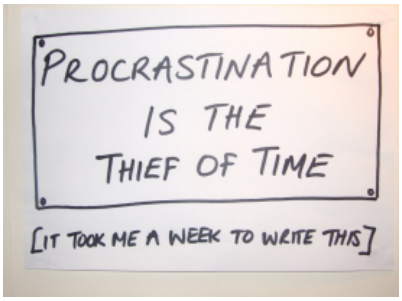
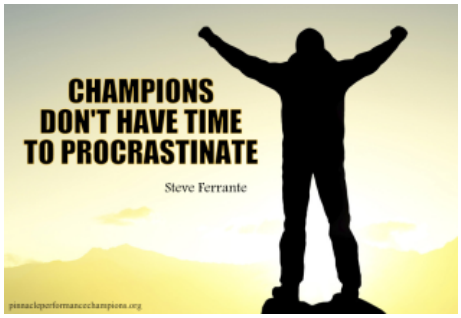




PERIODIC TABLE PROJECT

1. **Draw** a complete periodic table that covers a half sheet of poster board **(NOT A FULL PIECE!!!!!!!)**
2. Must have a title.
3. Fill in the following information for every element.
   Name of element (spelled correctly)
   Symbol of element (abbreviated correctly)
   Atomic number
   Average Atomic mass
4. Label periods 1-7 and groups 1-18.
5. Provide a key that indicates what each item in each block represents.
6. Color code and use another key to indicate common groups or other commonalities among elements on your periodic table. *There are numerous examples on the internet. It is your responsibility to do enough research to ensure that the information on your periodic table is correct.*
7. Lines must be straight and the overall periodic table must be neatly carried out. Overall work must be spaced out appropriately - should not look like you ran out of room.
8. Your periodic table CANNOT be printed- it all must be originally done!!!
9. These instructions must be taped to the back of the project.

DUE DATE:

At the beginning of class on October 3rd

I expect your project to be complete when you bring it on the due date. This means that you are not to come to class and ask to use glue, tape, markers, scissors, etc in order to finish it.

Sep 21-11:54 AM

On the other half of your poster board, pick an element that starts with the SAME letter as your first name.
1. Give the element from the periodic table and label all the important information (see your ISN page 38 for information)
2. Answer the following questions somewhere on the poster. DO NOT print these off and answer them that way.
3. Be Creative!!!!!! Be Colorful!!!!! Be Motivated!!!
4. DO NOT WAIT UNTI LTHE LAST MINUTE!!!

Student Name:

_____

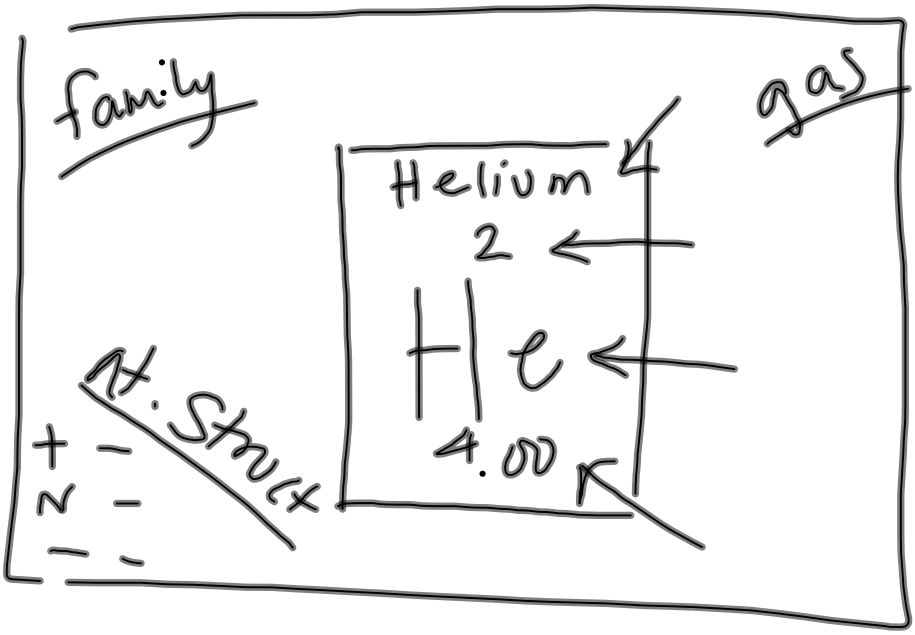
Element Name:

_____

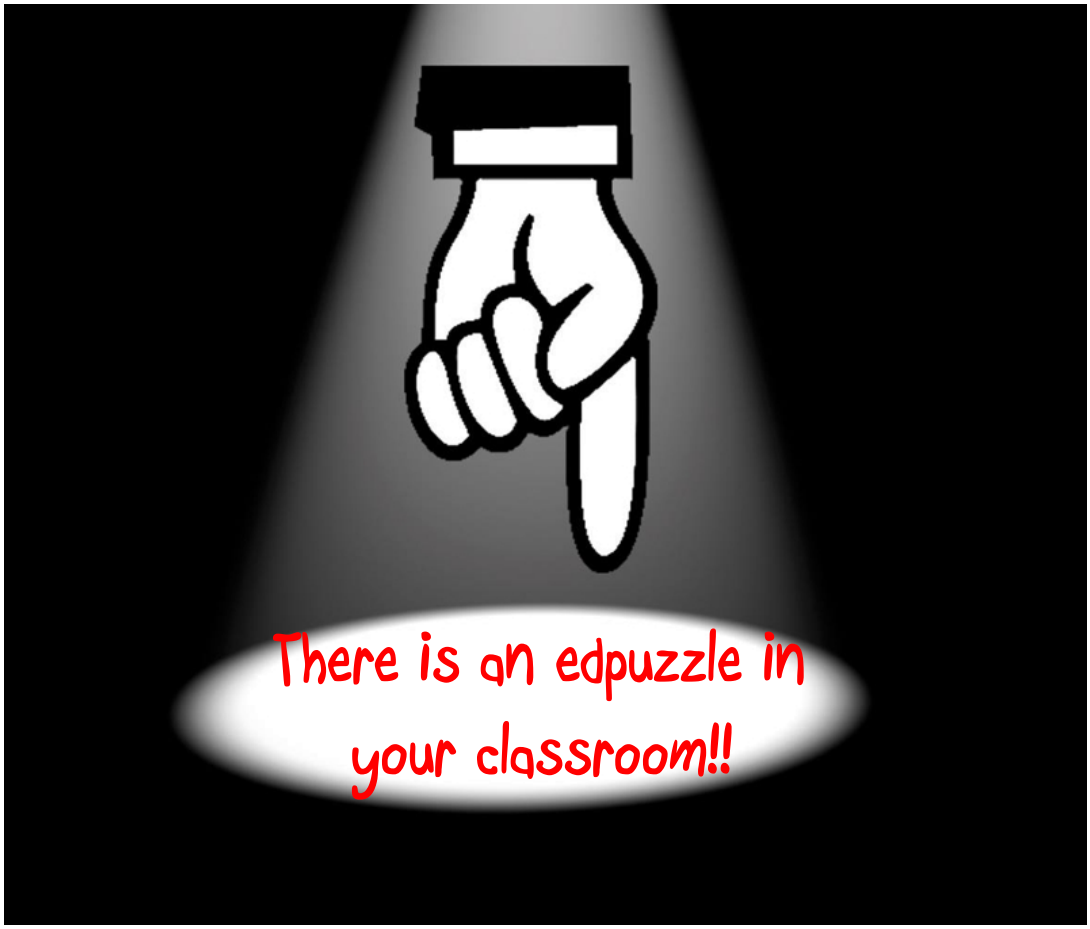
Explore the Core Concepts: Periodic Table database to complete the following tasks and find the following information about your assigned element.

1. What is the element's symbol?
2. To what family does the element belong? (For example, is it a noble gas, an alkali metal, or something else?)
3. Describe the atomic structure of the element: how many protons, neutrons, electrons, and electron shells does an atom of this element have?
4. What is the element's state of matter (solid, liquid, or gas)?
5. What is the element's atomic weight?
6. Where can the element be found in the natural world, in the human body, or in products you use?
7. What are some properties of the element? (For example, does it conduct electricity? It is odorless? What color is it?)
8. When was the element discovered? Who discovered it?
9. If there is a video available, watch the video about the element. List at least 2 things you learned from the video.
10. List at least three interesting facts about this element.

Sep 21-11:54 AM



Sep 21-12:09 PM



Sep 22-9:28 AM

HANDY HINTS . . .

- Rm 4 has 2 energy levels
- Rm 7 has 5 valence electrons
- Rm 8 is in Period 3
- Rm 10 has 12 neutrons
- Rm 12 the amu is based on me
- Rm 16 is a halogen
- Rm 17 has one more proton than Rm 10

Sep 22-9:52 AM