Unit 4
Class Work

NAME 12/3/13

4.6 Organization of the Periodic Table II

SPARK:

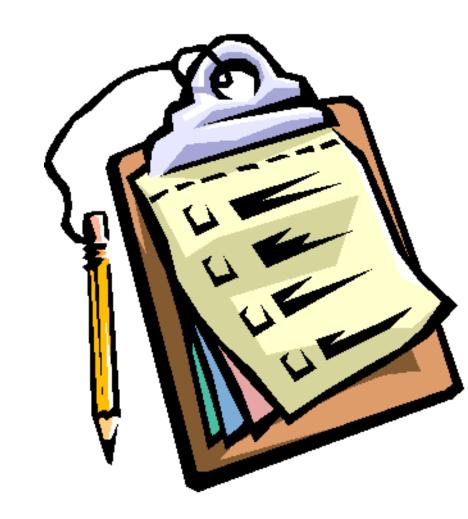
- 1. What is the mass of a neutron?
- 2. What is the charge of an electron?
- 3. Draw the Lewis Dot diagram for Calcium

Objective

Thanksgiving HOMEWORK!

Agenda:

- Do Now/Objective
- Mini Lesson
- Classwork
- Homework



Metallic VS Nonmetallic Properties

<u>METALS</u>	<u>NONMETALS</u>
 Shiny! Malleable/Bendable Conducts Electricity REACTS w/ ACID Usually SOLID at room temp. (EXCEPTION: Mercury (Hg) is liquid at room temp) 	 Dull (NOT shiny) Brittle/Fragile/Breakable Not a conductor of electricity NO REACTION w/ ACID Can be solid, liquid, or gas at room temp.
•Examples: Copper (Cu), Silver (Ag), Platinum (Pt), and Vanadium (V)	•Examples: Sulfur (S), Neon (Ne), Fluorine (F), Iodine (I)

Metalloids

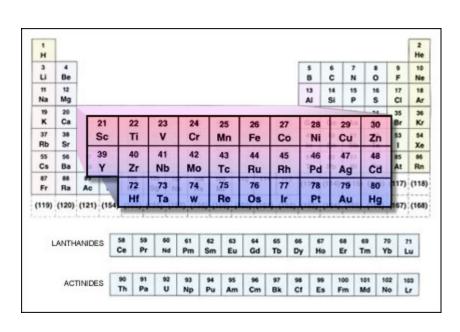
 Metalloids** have physical and chemical properties of both metals and nonmetals

For example: shiny gray solid, reacts with HCl (acid),
 but DOES NOT conduct electricity

Examples: Boron (B), Silicon (Si)

Transition Metals

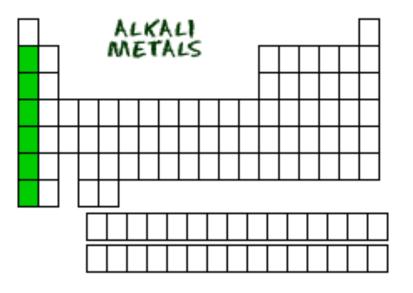
- Transition metals** are in groups 3 through 12
- Emit energy with frequencies of visible colors





Alkali Metals

- Group #1 (except hydrogen)
- = alkali metals**.



Extremely reactive.

- Examples:
 - Sodium (Na) in salt
 - Lithium (Li) used in batteries

Li Lithium

Na Sodium

K Potassium

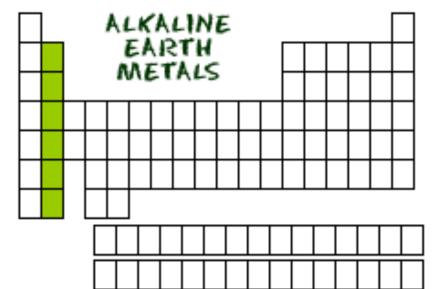
Rb Rubidium

Cs Cesium

Fr Francium

Alkaline Earth Metals

 Group #2 = alkaline earth metals.



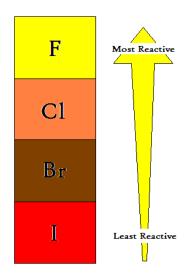
Also highly reactive

- Examples:
 - Calcium (Ca) in milk and muscles
 - Magnesium (Mg) used in computers



Halogens

Group #17 = halogens

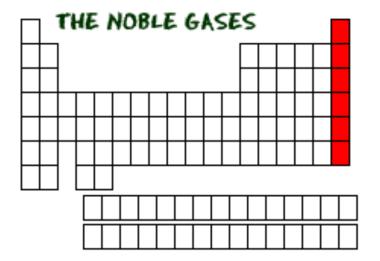


Highly Reactive

- Examples:
 - Fluorine (F) used in toothpaste
 - Bromine (Br) used in hot tubs

Noble Gases

Group #18 = noble gases



These gases are extremely unreactive.

- Examples:
 - Used in lasers and light bulbs



Movie Time!

 http://education-portal.com/academy/lesson/ the-periodic-table-properties-of-groups-andperiods.html#lesson

Hands up!

- Most of the elements in the Periodic Table are classified as
 - Metalloids (3) Nonmetals
 - Noble gases (4) Metals
- Phosphorus is best classified as a
 - Nonmetal (3) Metalloid
 - Metal (4) Transition element

Classwork

Complete 4.5 classwork with your neighbors!

Review 4.4 Worksheets

• If there is time!

Objective

SWBAT explain grit and it's importance to our chemistry classroom

Grit





GRIT

Passion and perseverance for long term goals

WHAT DOES THAT MEAN?

Turn and talk to your neighbor and come up with your own definition for grit!

So why does having Grit matter?

 Turn and talk to your neighbor- why it's important to have grit?

VIDEO

Will Smith -

http://www.youtube.com/watch?

v=doqS35FfcUE

- Start at 1:30 and 4:09
- http://vimeo.com/1807270

Video/Reading

Angela Duckworth – Start at 1:30

Our Class

What do you think Grit looks like in our classroom?

PRACTICE

What are your long term goals?

• If (cue), then (action verb)

PRACTICE

 You're going to demonstrate your grittiness by completing test reflections and corrections for your Unit 3 tests!

Reflection

Pick one of the quotes below and write a response on your loose leaf:

- "I will not be over-worked"
- "Great writing is not written, it is rewritten"
- "Fail forward"
- "Wherever you are, you are"

HOMEWORK

Complete 4.5 HW and work on Thanksgiving HW!