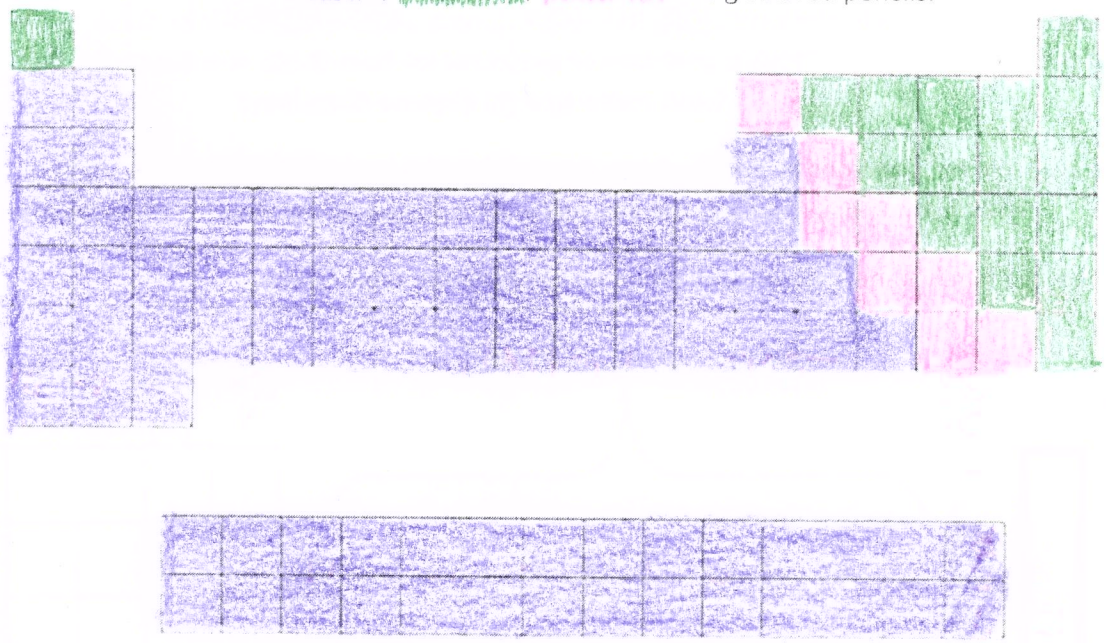
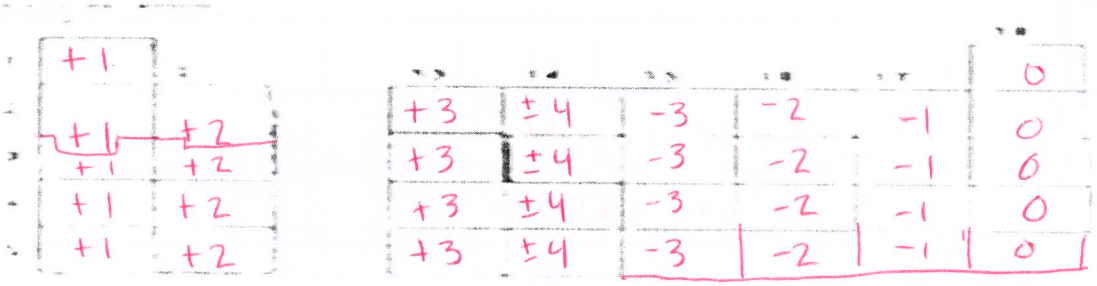
5. What does the Ionization energy value tell you?

the energy needed to remove the outermost electron

6. Label the metals, nonmetals, metalloids using colored pencils.



7. Write the Oxidation numbers for the elements represented in the picture below.



8. Explain how Mendeleev arranged the Periodic Table.

according to atomic mass

9. Explain how Moseley re-arranged Mendeleev's Periodic Table.

according to atomic number

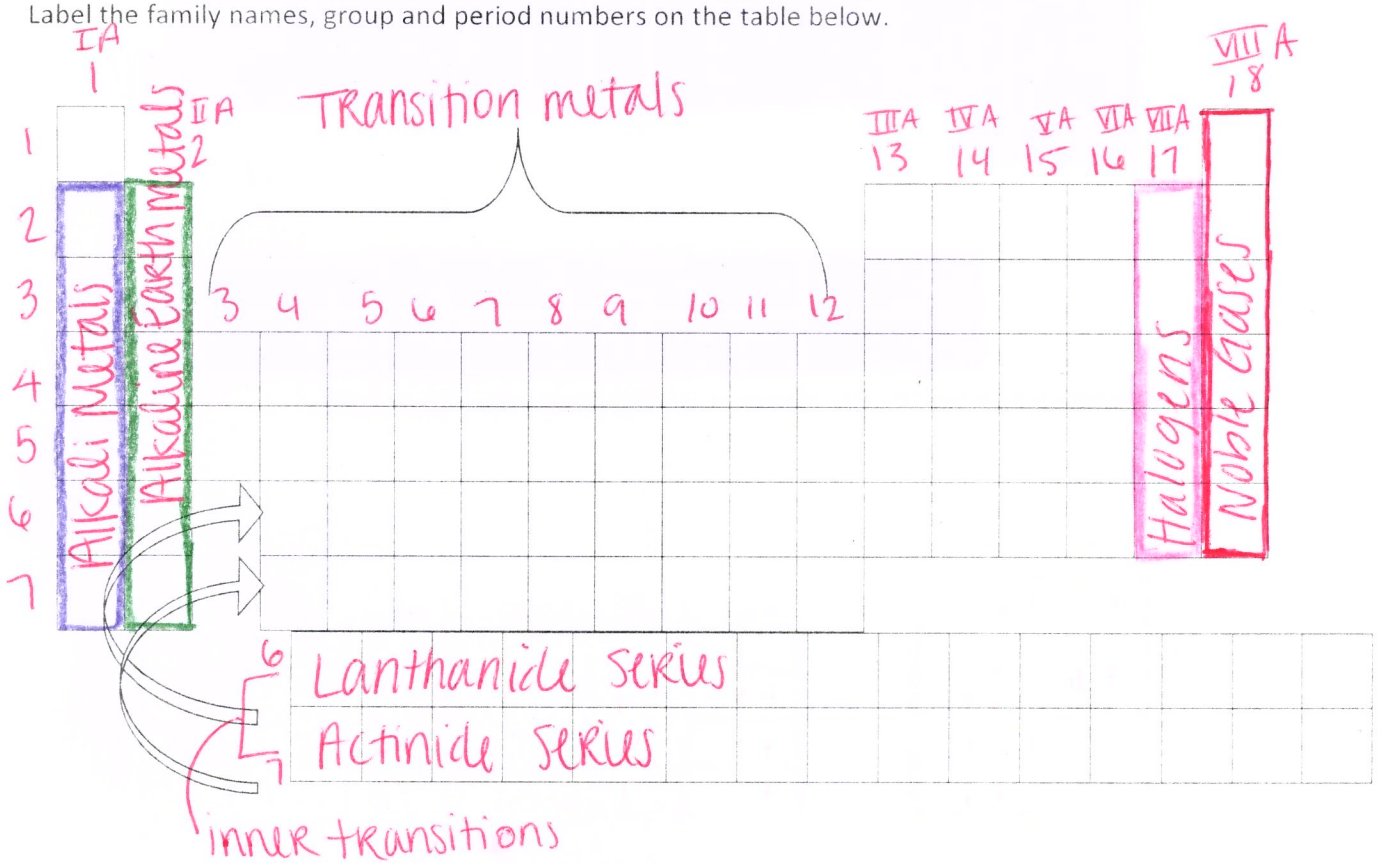
10. The state of matter of elements on the Periodic Table is at room temperature or STP

UNIT 7 TEST REVIEW Name: Key

The Unit 7 test is on ***Friday, December 9, 2011***. In order to prepare for this test, you should review all of your notes, warm up questions, worksheets, activities we have done and quizzes along with completing all of this in detail. **Remember**, you need to actively study, **NOT** just read over this sheet multiple times. Actively studying includes doing some of these items or more: Practice problems or questions we have done, re-write notes, do the quizzes from the book online (google Glencoe Chemistry)

I will be available for questions by email – Jaime.degarmo@cfisd.net until 930 Thursday night or if you come in after 6:50 am on Friday morning. The answers will be posted on my website Thursday afternoon.

1. Label the family names, group and period numbers on the table below.



2. Explain what is unique about the Noble Gases.

They have 8 electrons in the outer energy level, do not bond, inert, 0 oxidation number

3. List the three things elements in the same group have in common.
   a. Chemical & Physical Properties
   b. Oxidation numbers
   c. valence electrons

4. Explain Electronegativity.

is a measure of how easily an atom attracts the valence electrons of another atom

Low EN - does not want

High EN - Really wants!

11. What are synthetic elements? And where are they located?

man-made elements, in the f-block

12. List the properties of metals and give two examples.

malleable
ductile
good conductor of heat & electricity
shiny
solid

examples- Na (sodium)
Cu (copper)

13. List the properties of nonmetals and give two examples.

dull
non-malleable
non-ductile
not a good conductor
brittle

examples- S (sulfur)
Cl (chlorine)

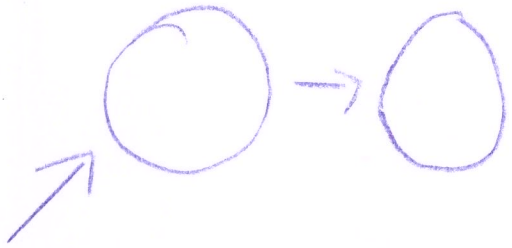
14. List the properties of metalloids and give two examples.

Properties of metals & nonmetals

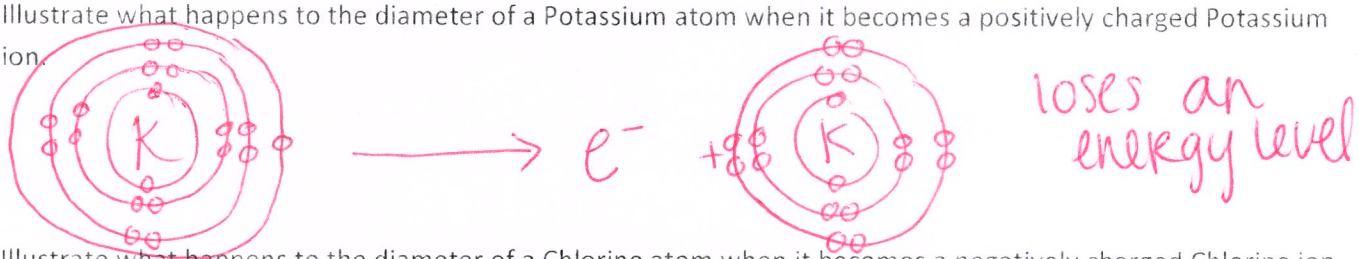
examples- Silicon (Si) & Germanium (Ge)

15. List the four factors the trends of the periodic table depend on.

a. nuclear charge
b. energy levels
c. shielding
d. ionization energy

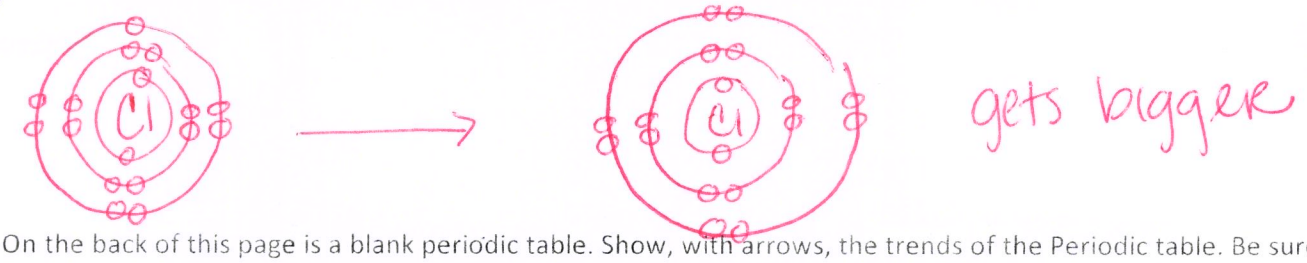


16. Illustrate what happens to the diameter of a Potassium atom when it becomes a positively charged Potassium ion.



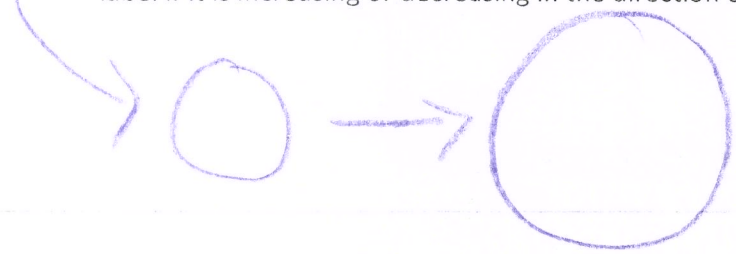
loses an energy level

17. Illustrate what happens to the diameter of a Chlorine atom when it becomes a negatively charged Chlorine ion.



gets bigger

18. On the back of this page is a blank periodic table. Show, with arrows, the trends of the Periodic table. Be sure to label if it is increasing or decreasing in the direction of the arrow.



scan.

0 87 pts each

90 115

Name: _____
Period: _____ Date: _____

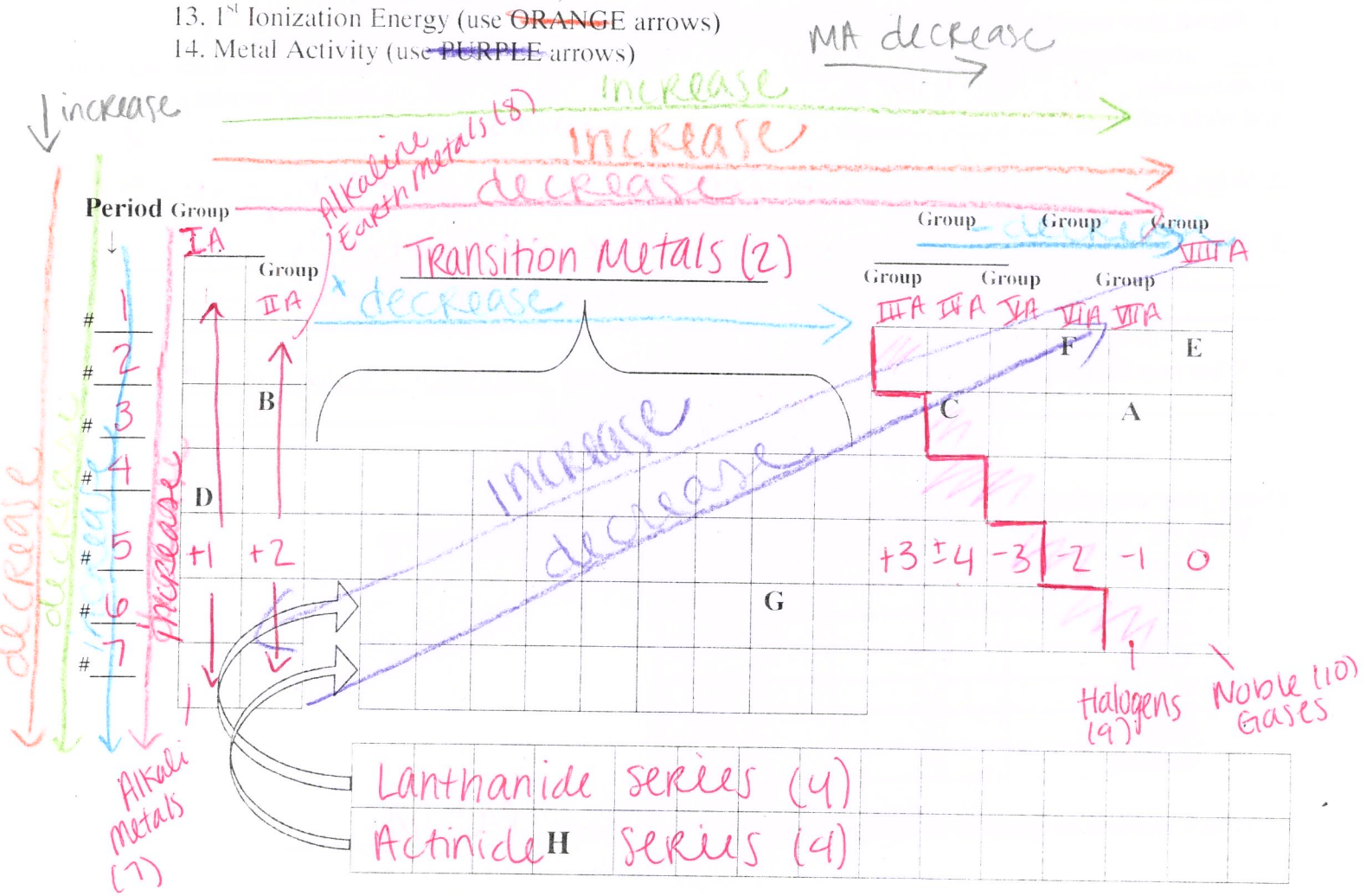
Periodic Table Quiz

LABEL THE FOLLOWING

1. Names for the A groups with roman numerals
2. Transition metals
3. Period numbers
4. Lanthanide and Actinide series
5. Draw in the stair step where metalloids are located
6. In pd. 5, label the oxidation number for all of the Representative A groups
7. Alkali Metals
8. Alkaline Earth Metals
9. Halogens
10 9. Noble Gases

Using ARROWS and the words INCREASING and DECREASING, show the following trends on the periodic table:

10. Electronegativity (use ~~GREEN~~ arrows)
11. Atomic radii (use ~~RED~~ arrows)
12. Ionic Radii (use ~~BLUE~~ arrows)
13. 1st Ionization Energy (use ~~ORANGE~~ arrows)
14. Metal Activity (use ~~PURPLE~~ arrows)



-15

Using the periodic table to fill in the following chart.

Element	Name	Symbol	Metal, Nonmetal, Metalloid	Solid, Liquid, Gas	Period Number	Family Number	Oxidation Number
A	Chlorine	Cl	Non	Gas	3	17/7A	-1
B	Magnesium	Mg	Metal	Solid	3	2	+2
C	Silicon	Si	Metalloid	Solid	3	14/4A	±4
D	Potassium	K	metal	Solid	4	1	+1
E	Neon	Ne	non	Gas	2	18/8A	0
F	Oxygen	O	non	Gas	2	16/6A	-2
G	Gold	Au	metal	Solid	6		
H	Uranium	U	metal	solid	7		
Np			Synthetic	s	7		

QUESTIONS

1. Mendeleev was the first person to organize the elements in horizontal rows or Periods according to increasing atomic mass. Moseley arranged the Periodic Table according to increasing atomic number. The elements on the vertical columns had similar properties and were called families or groups.

2. What do groups have in common? properties Periods? energy levels

3. What does electronegativity mean? how reactive an element is

4. What two things does the size of the atomic radii depend on? nuclear charge & energy levels

Using your complete charts, answer the following questions.

5. Write the symbol and predict the oxidation number of the following elements

Element	Symbol	Oxidation #
Cesium	Cs	+1
Arsenic	As	-3
Xenon	Xe	0
Boron	B	+3
Iodine	I	-1
Radium	Ra	+2

6. Which element in question in #5 has the highest energy level? Radium